Appendix I:
Transportation Supporting Information

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TRANSPORTATION IMPACT ANALYSIS

Shirk & Riggin Industrial Park

PREPARED FOR:

SEEFRIED INDUSTRIAL PROPERTIES

FEBRUARY 2024 | FINAL

Prepared By:

Kimley»Horn

REGISTERED PROFESSIONAL ENGINEER
JOSIAH D. SHULTZ
RCE NO. 84152
CIVIL
STATE OF CALIFORNIA

Signed: Joe Shultz, P.E. (RCE #84152)

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EXECUTIVE SUMMARY

The following Traffic Impact Analysis (TIA) has been prepared to analyze potential Vehicle Miles Traveled (VMT) impacts pursuant to the requirements of the California Environmental Quality Act (Public Resources Code [PRC] § 21000 *et seq*. and the CEQA Guidelines § 15000 *et seq*.) (collectively, CEQA) as well as to evaluate any non-CEQA Level of Service (LOS) deficiencies associated with the Shirk & Riggin Industrial Park ("proposed project").

PROJECT DESCRIPTION

Applicant proposes to develop the approximately 284-acre project site, which currently is being used for agricultural purposes consisting of an actively managed almond orchard, established around 2018, with a mixed-use industrial park. Specifically, the proposed project would discontinue the existing agricultural uses, demolish remaining on-site structures that serve the current agricultural uses, and develop a mixed-use industrial park totaling approximately 3,720,149 square feet of light industrial and flex industrial uses along with car/trailer parking areas and related on- and off-site improvements. The proposed project would consist of eight (8) industrial buildings used for warehouse, distribution, and light manufacturing; six (6) flex industrial buildings offering small incubator space for small manufacturing, storage, and limited warehouse space; two drive-thru fast food/quick serve restaurants; a convenience store; a recreational vehicle (RV) and self-storage facility; a gas station; and a car wash. The project site would include sufficient amounts of trailer stalls and car parking stalls to serve the proposed uses in accordance with applicable City requirements. The proposed project would also involve necessary on- and off-site infrastructure and improvements sufficient to serve the proposed uses.

For the purposes of the TIA and in accordance with the applicant's project development goals, construction of the proposed project is anticipated to begin in March 2024 and completed in March 2028, with operations commencing upon the completion of construction of the proposed project. As described above, given its size and nature, it is reasonable to assume the proposed project would be constructed in phases over time. However, because various market, economic and other considerations would ultimately determine how construction phasing would occur in connection with individual specific development proposal(s), this TIA utilizes the following assumptions based on reasonably available information for purposes of a conservative analysis:

- Phase 1, construction assumed to begin in March 2024 and completed in March 2025
    - 1,864,680 SF Light Industrial (Buildings 1 & 2)
- Phase 2, construction assumed to begin in September 2025 and completed in September 2026
    - 830,700 SF Light Industrial (Buildings 3, 4 & 7)
    - 6,920 SF Gas Station/Convenience Market (with 12 vehicle fueling stations)
    - 4,740 SF Fast-food Restaurant (with Drive-through)
    - 4,560 SF Car Wash
- Phase 3, construction assumed to begin in March 2027 and completed in March 2028
    - 779,270 SF Light Industrial (Buildings 5, 6 & 8)
    - 84,480 SF Flex Industrial
    - 144,800 SF Mini-Storage (with RV parking)

TRIP GENERATION

The proposed project's Phase 1 development is estimated to generate approximately 7,347 daily PCE trips, with 709 PCE trips (548 inbound / 161 outbound) during the a.m. commuter peak hour and 709 trips (167 inbound / 542 outbound) during the p.m. commuter peak hour. It is estimated that the proposed project's Phase 1 and 2 developments (combined) would generate approximately 17,790 daily PCE trips, with 1,183 PCE trips (870 inbound / 313 outbound) during the a.m. commuter peak hour and 1,162 trips (315 inbound / 847 outbound) during the p.m. commuter peak hour. It is estimated that the proposed project's Buildout (Phase 1, 2 and 3, combined) would generate a total of approximately 21,409 daily PCE trips, with 1,508 PCE trips (1,119 inbound / 389 outbound) during the a.m. commuter peak hour and 1,495 trips (399 inbound / 1,097 outbound) during the p.m. commuter peak hour.

ACCESS

Vehicular access for the proposed project consists of nineteen (19) driveways that would intersect the public streets, detailed below:

- Phase 1
    - N Kelsey Street: five (5) full-access driveways
    - N Clancy Street: four (4) full-access driveways
- Phase 2
    - W Riggin Avenue: one (1) limited-access driveway (Outbound LT Restricted)
    - W Riggin Avenue: one (1) right-in/right-out driveway
    - N Clancy Street: four (4) full-access driveways
    - N Shirk Street: one (1) full-access driveway
- Phase 3
    - W Riggin Avenue: one (1) limited-access driveway (Outbound LT Restricted)
    - N Shirk Street: one (1) right-in/right-out driveway
    - N Shirk Street: one (1) limited-access driveway (Outbound LT Restricted)

The southernmost driveway along N Shirk Street (Driveway 19) would align with the neighboring driveway for the recently approved Costco development (22-071), which is proposed to be signalized as part of their opening day access requirements. All other eighteen (18) driveways are proposed to be unsignalized. An internal network of drive aisles would connect the overall project.

PROPOSED OFF-SITE ROADWAY IMPROVEMENTS

Proposed off-site roadway improvements would be constructed by the proposed project along W Riggin Avenue, N Kelsey Street, N Clancy Street and N Shirk Street.

W RIGGIN AVENUE

The proposed project would dedicate the right-of-way adjacent to south side of the project site for a 4-Lane Arterial, which is planned to be constructed by the City/other third parties prior to the completion of the proposed project's Phase 1 construction, as part of the already-approved Riggin Widening & Improvements CIP project. Chapter 5 provides further details related to these CIP improvements. The proposed project would construct sidewalk and parkway along the north side of the street, along the proposed project's frontage. The proposed project would construct and signalize the new intersection at N Clancy Street (Signal Warrant Analysis to follow). One (1) right-in/right-out, stop-controlled driveway and two (2) limited-

access (outbound left-turn restricted), stop-controlled driveways would be constructed along W Riggin Avenue.

The CIP project would provide a cross-section with two travel lanes and a Class II bike lane in each direction, Eastbound and westbound left-turn pockets would be provided at N Clancy Street, and eastbound left-turn pockets at the two (2) limited access driveways. A bus turnout/stop at the northwest corner of N Shirk Street / W Riggin Avenue would also be provided.

The timing of the proposed project's sidewalk, parkway, and access improvements would be the following:

- Phase 1
    - Construct and signalize intersection of N Clancy Street
- Phase 2
    - Construct sidewalk, parkway, and one (1) driveway access between N Kelsey Street and N Clancy Street (approximately half-mile)
    - Construct sidewalk, parkway, and one (1) driveway adjacent to commercial development near N Shirk Street intersection (approximately 600-feet)
- Phase 3
    - Construct sidewalk, parkway, and one (1) driveway between N Clancy Street and commercial development (approximately 1,950-feet)

N KELSEY STREET

The proposed project would dedicate and improve the right-of-way adjacent to the west side of the project site for half street improvements along the eastern half of N Kelsey Street for a 2-Lane Collector. These improvements would complete the street's full curb-to-curb width since the west side of road was recently constructed in 2022. The proposed project would also construct sidewalk and parkway improvements along the east side of street, along the proposed project's frontage. The cross-section would include one travel lane, a Class II bike lane and parking in both directions. A center two-way left-turn lane would also be provided. The intersection and existing traffic signal at W Riggin Avenue would be modified for these improvements. Five (5) full-access, stop-controlled driveways would be constructed along N Kelsey Street.

All roadway, sidewalk, parkway, and access improvements along east side of N Kelsey Street would occur during the construction of Phase 1 (approximately half-mile).

N CLANCY STREET

The proposed project would dedicate and improve the entire street's right-of-way along the project site for a 2-Lane Collector. A cul-de-sac would be constructed at the north terminus, just south of the existing drainage channel and south of the future Shannon Parkway alignment (planned collector). The proposed project would construct sidewalk and parkway improvements along both sides of the street, north of W Riggin Avenue. The cross-section would include one travel lane, a Class II bike lane and parking in both directions. A center two-way left-turn lane would also be provided. The proposed project would construct and signalize the new intersection at W Riggin Avenue (Signal Warrant Analysis to follow). Eight (8) full-access, stop-controlled driveways would be constructed along N Clancy Street.

The timing of the proposed project's roadway, sidewalk, parkway, and access improvements would be the following:

- Phase 1

    - Construct sidewalk, parkway, and four (4) driveway access on west side of N Clancy Street (approximately 2,050-feet)
    - Construct west half of the roadway
- Phase 2
    - Construct sidewalk, parkway, and four (4) driveway access on east side of N Clancy Street (approximately 2,050-feet)
    - Construct east half of the roadway

N SHIRK STREET

The proposed project would dedicate and improve the right-of-way adjacent to the east side of project site for half street improvements along the western half of N Shirk Street for a 4-Lane Arterial. The proposed project would also construct sidewalk and parkway improvements on the west side of street, along the proposed project's frontage. These improvements would complete the street's full curb-to-curb width since the east side of road would be constructed as part of the separate Carlton Acres Specific Plan (CASP) phase 1 development. The cross-section would include two travel lanes and a Class II bike lane in each direction, with a center raised median. A 300-foot left-turn pocket into the project site would be provided at W Sedona Avenue, a limited-access (outbound left-turn restricted), stop-controlled driveway. A 200-foot left-turn pocket into the project site would be provided at project driveway 19 (signalized by CASP phase 1 development). One (1) right-in/right-out, stop-controlled driveway would be constructed along N Shirk Street.

The timing of the proposed project's roadway, sidewalk, parkway, and access improvements would the following:

- Phase 2
    - Construct roadway, sidewalk, parkway, and one (1) driveway adjacent to commercial development north of W Riggin Avenue intersection (approximately 900-feet)
- Phase 3
    - Construct roadway, sidewalk, parkway, and two (2) driveways between limits of Phase 2 improvements and north of the proposed project's frontage (approximately 1,200-feet)

PROJECT IMPACTS / RECOMMENDATIONS (CEQA)

The proposed project is expected to increase VMT per employee within the Traffic Analysis Zone (TAZ) it is located by approximately 0.15 miles, or 1.54 percent of the total mile traveled. Therefore, the proposed project would result in a significant VMT impact, requiring mitigation.

VMT MITIGATION

The Applicant would provide the following mitigation measures to reduce VMT impact:

1. End-of-Trip Bicycle Facilities: The site plan would include up to six (6) secured bicycle storage lockers near each of the buildings entrances and the future transit stop. Up to ten (10) potential locations are included, for a total of up to sixty (60) lockers throughout the site.
2. Expand Bicycle Network: Construct bike path along Modoc Ditch, between Kelsey Street and Shirk Street (approximately 1-mile). The Class I bikeway along Murdoc ditch is existing to the east of the proposed project, between Dinuba Boulevard and the St. John's River Trail. The CASP project also proposed to construct a portion of the Class I path within the site. The bike path would connect to

a new path proposed within CASP site and future segments to the east and west. This mitigation is subject to contractability and approval of Cal Water.

Combining the above-mentioned mitigation measures would reduce the proposed project's VMT per employee by 1.75 percent, exceeding the proposed project's 1.54 percent impact. Therefore, the proposed project's VMT impact would be mitigated.

In addition to the proposed mitigation measures, VMT is expected to be further reduced with the construction of the adjacent Carlton Acres development, which contains a high number of residential units. The interaction between the proposed project's employment opportunities adjacent to the added residential units was not considered by the TCAG travel demand model, but would further reduce VMTs. Additionally, the construction of bike path along Modoc Ditch is expected to reduce the miles traveled of nearby existing and future developments as it provides an important bicycle and pedestrian connection for the City and County.

PROJECT DEFICIENCIES / RECOMMENDATIONS (NON-CEQA)

Level Of Service (LOS) operations were evaluated for the following scenarios:

- Existing (2022) Conditions
- Near-Term Conditions for years 2025, 2026 and 2028, the projected Phase 1, 2 and 3 opening years
- Near-Term Conditions Plus Project for years 2025, 2026 and 2028 with the addition of the Phase 1, 2 and 3 proposed improvements and expected trip generation
- Long-Term Conditions for years 2033, 2038 and 2048, 5, 10 and 20 years after the projected buildout of the proposed project
- Long-Term Conditions Plus Project Buildout for years 2033, 2038 and 2048 with the addition of all the proposed project's improvements and expected trip generation

INTERSECTION #3 – N PLAZA DR & W RIGGIN AVE

Queuing

The proposed project is expected to result in a queuing deficiency for the following conditions:

- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – NBR / WBL
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – NBR / WBL

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to cause a queueing deficiency since one or more queues would extend beyond the turn pockets and would increase the queue length by more than 25 feet. Under the ensuing scenario, the queueing increases further.

Improvement – Intersection #3

The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. Since LOS is acceptable and since the westbound left-turn movements are projected to just exceed 300 turning movements for the Near-Term (2028) Plus Project Build-Out scenario (242 AM / 302 PM), dual left-turn pockets are not suggested at this time. It is recommended that the proposed project modify the raised median to extend the existing westbound left-turn pocket by 100-feet, to provide 400-foot left-turn pocket. It is also recommended that the existing northbound right-turn stripe be extended to 300-feet.

INTERSECTION #14 – N SHIRK ST & W RIGGIN AVE

Queuing

The proposed project is expected to result in a queuing deficiency for the following conditions:

- Near-Term (2025) Plus Phase 1 (AM and PM peak hours) – NBL / EBR
- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – NBL / EBR
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – NBL / EBR

Under Near-Term (2025) Conditions Plus Phase 1, the proposed project is projected to cause a queueing deficiency since one or more queues would extend beyond the turn pockets, and since it would increase the queue length by more than 25 feet. Under the ensuing scenarios, the queueing increases further.

Improvement – Intersection #14

The LOS analysis shows this intersection is expected to operate at an overall acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. However, the proposed project is expected to generate a substantial amount of traffic to the subject intersection's movements, specifically the northbound left-turn movement during the AM peak hour and the eastbound right-turn movement during the PM peak hour. To provide sufficient storage capacity for northbound left-turns and reduce the probability of blocking thru traffic, it is recommended that the proposed project widen to provide dual northbound left-turn pockets (300-foot minimum). Since a 300-foot eastbound right-turn pocket would already be installed by the CIP project, additional recommendations are not proposed.

It should be noted that an eastbound right-turn overlap signal phase was evaluated. While the addition of overlap would reduce the eastbound queue to less than the pocket's length (300-feet), it is assumed to not be desired by City at this time since it may limit access to a potential development on the southwest corner in the future.

INTERSECTION #15 – N SHIRK ST & W SUNNYVIEW AVE/FERGUSON AVE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Near-Term (2025) Conditions Plus Phase 1 (PM peak hour)
- Near-Term (2026) Conditions Plus Phase 2 (AM and PM peak hours)
- Near-Term (2028) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2033) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2038) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2048) Conditions Plus Project Build-Out (AM and PM peak hours)

Under Near-Term (2025) Conditions Plus Phase 1, the proposed project is projected to contribute to an intersection deficiency. Under the ensuing scenarios, the intersection continues to operate at an unacceptable LOS with the proposed project and increases in intersection delay.

Improvement – Intersection #15

To alleviate the intersection LOS deficiency, it is recommended that the proposed project signalize the intersection, subject to pro rata cost sharing with CASP. This improvement would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for all intersection turn pockets below the storage capacity. The intersection satisfies the CA MUTCD traffic signal warrants 1 and 2 for all Near-Term baseline and Plus Project scenarios.

It should be noted that the improvement costs at this intersection are expected to be shared by CASP and the proposed project as it provides access to both sites.

INTERSECTION #19 – N ROEBEN ST & W RIGGIN AVE

This intersection is located along the CASP project frontage and provides direct access to the site. The deficiencies identified are a direct result of the CASP project traffic and would be alleviated by the signalization, installation of left-turn pockets, and other access improvements by CASP in year 2028. Therefore, no recommended improvements or cost sharing are recommended for the proposed project.

INTERSECTION #20 – N ROEBEN ST & W FERGUSON AVE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Long-Term (2048) Conditions Plus Project Build-Out (PM peak hour)

Under Long-Term (2048) Conditions Plus Project Build-Out, the proposed project is projected to contribute to an intersection deficiency.

Improvement – Intersection #20

Since this intersection LOS deficiency is expected to occur after the 2028, primarily due to the addition of CASP project's build-out traffic, it is recommended that the proposed project make a 26.2% fair share contribution towards signalizing the intersection. Based on the estimated signalization and interconnect cost of $500,000, the proposed project would contribute up to $131,000 for these future improvements. The addition of these intersection improvements is expected to improve overall intersection LOS operations to acceptable. The intersection does not satisfy the CA MUTCD traffic signal warrants for any Near-Term baseline and Plus Project scenarios. The City may elect to fund other improvements, should the intersection not meet CA MUTCD traffic signal warrants in the future.

INTERSECTION #23 – N AKERS STREET & W RIGGIN AVENUE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Near-Term (2025) Conditions Plus Phase 1 (AM and PM peak hours)
- Near-Term (2026) Conditions Plus Phase 2 (AM and PM peak hours)
- Near-Term (2028) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2033) Conditions Plus Project Build-Out (AM and PM peak hours)

- Long-Term (2038) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2048) Conditions Plus Project Build-Out (AM and PM peak hours)

Under Near-Term (2025) Conditions Plus Phase 1, the proposed project is projected to contribute to an intersection deficiency. Under the ensuing scenarios, the intersection continues to operate at an unacceptable LOS with the proposed project and increases in intersection delay.

Improvement – Intersection #23

To alleviate the intersection LOS deficiency, it is recommended that the proposed project restripe the roadway to provide an additional northbound left-turn pocket and thru lane, and provide an additional eastbound / westbound through lane. Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 300-foot pocket.

It should be noted that the intersection is under construction as of June 2023. It is anticipated that all or a portion these improvements would be constructed. The improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

INTERSECTION #24 – N AKERS ST & W FERGUSON AVE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Near-Term (2026) Conditions Plus Phase 2 (AM peak hour)
- Near-Term (2028) Conditions Plus Project Build-Out (AM peak hour)
- Long-Term (2033) Conditions Plus Project Build-Out (AM peak hour)
- Long-Term (2038) Conditions Plus Project Build-Out (AM peak hour)
- Long-Term (2048) Conditions Plus Project Build-Out (AM peak hour)

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to contribute to an intersection deficiency. Under the ensuing scenarios, the intersection continues to operate at an unacceptable LOS with the proposed project and increases in intersection delay.

Queuing

The proposed project is expected to result in a queuing deficiency for the following conditions:

- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – NBL
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – NBL

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to cause a queueing deficiency since it would increase the queue length by more than 25 feet. Under the ensuing scenario, the queueing increases further.

Improvement – Intersection #24

To alleviate the intersection LOS deficiency, it is recommended that the proposed project provide a southbound right-turn pocket (150-foot min), restripe the northbound right-turn lane to a thru lane, and stripe

a northbound right-turn pocket (150-foot min), and to provide an eastbound right-turn pocket (150-foot min). Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 215-foot pocket.

It should be noted that the improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

INTERSECTION #25 – N AKERS ST & W GOSHEN AVE

Queuing

The proposed project is expected to result in a queuing deficiency for the southbound left-turn pocket for the following conditions:

- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – SBL
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – SBL

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to cause a queueing deficiency since it would increase the queue length by more than 25 feet. Under the ensuing scenario, the queueing increases further.

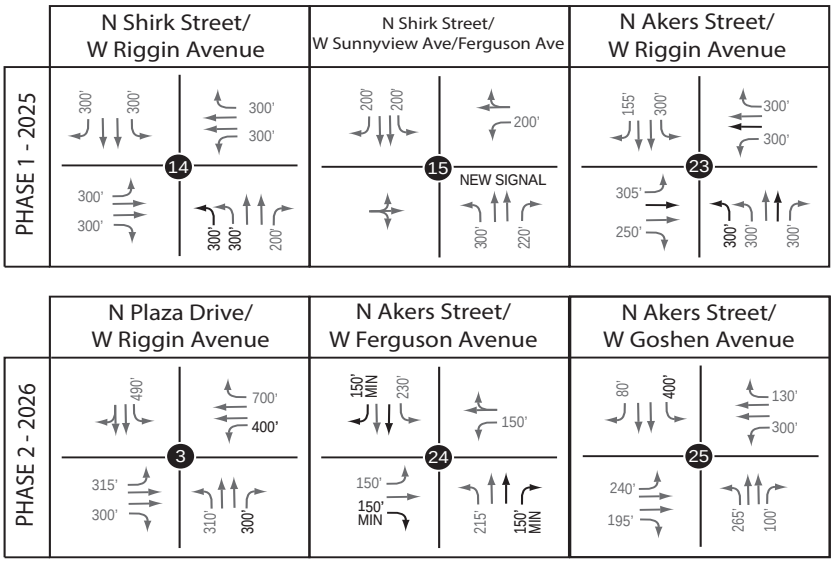
Improvement – Intersection #25

The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. It is recommended that the proposed project modify the raised median to extend the existing southbound left-turn pocket to approximately 400-feet, which is the maximum length that is able to be achieved without reducing the northbound left-turn pocket at N Akers St & Elowin Ave.

It should be noted that the improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

Figure E-1 illustrates the recommended off-site improvements for each Phase of development. **Table E-1** summarizes the LOS deficiencies and recommended improvements, broken down by development phase it is required for.

FIGURE E-1 SUMMARY OF OFFSITE RECOMMENDATIONS



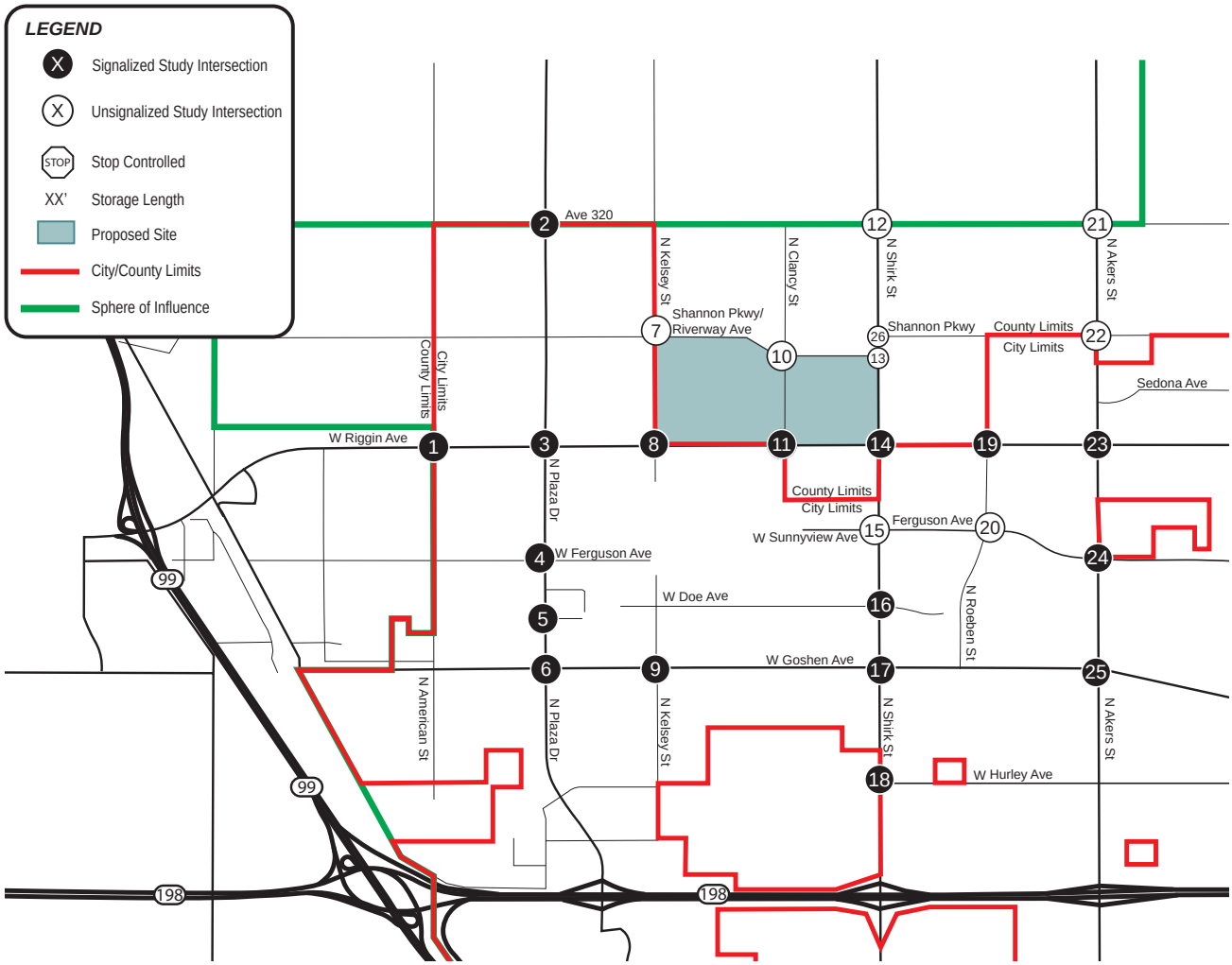


TABLE E-1 SUMMARY OF OFF-SITE RECOMMENDATIONS

SUMMARY OF OFF-SITE RECOMMENDATIONS

#	Intersection	Deficiency Type	Scenario with Proposed Project-Related Deficiency						Required Mitigation Measure	Project Contribution
			Near-Term (2025) Conditions Plus Phase 1	Near-Term (2026) Conditions Plus Phase 2	Near-Term (2028) Conditions Plus Project Build-Out	Long-Term (2033) Conditions Plus Project Build-Out	Long-Term (2038) Conditions Plus Project Build-Out	Long-Term (2048) Conditions Plus Project Build-Out		
3	N Plaza Drive / W Riggin Avenue	LOS	-	-	-	-	-	-	**Improvement**: The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. Since LOS is acceptable and since the westbound left-turns movements are projected to just exceed 300 turning movements for the Near-Term (2028) Plus Project Build-Out scenario (242 AM / 302 PM), dual left-turn pockets are not suggested at this time. It is recommended that the proposed project modify the raised median to extend the existing westbound left-turn pocket by 100-feet, to provide 400-foot left-turn pocket. It is also recommended that the existing northbound right-turn stripe be extended to 300-feet.	**100%**
		QUEUE	-	**X**	**X**	N/A	N/A	N/A		
14	N Shirk Street / W Riggin Avenue	LOS	-	-	-	-	-	-	**Improvement**: The LOS analysis shows this intersection is expected to operate at an overall acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. However, the proposed project is expected to generate a substantial amount of traffic to the subject intersection's movements, specifically the northbound left-turn movement during the AM peak hour and the eastbound right-turn movement during the PM peak hour. To provide sufficient storage capacity for northbound left-turns and reduce the probability of blocking thru traffic, it is recommended that the proposed project widen to provide dual northbound left-turn pockets (300-foot minimum). Since a 300-foot eastbound right-turn pocket would already be installed by the CIP project, additional recommendations are not proposed.	**100%**
		QUEUE	**X**	**X**	**X**	N/A	N/A	N/A		
15	N Shirk Street / W Sunnyview Avenue & Ferguson Avenue	LOS	**X**	**X**	**X**	**X**	**X**	**X**	**Improvement**: To alleviate the intersection LOS deficiency, it is recommended that the proposed project signalize the intersection, subject to pro rata cost sharing with CASP. This improvement would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for all intersection turn pockets below the storage capacity. The intersection satisfies the CA MUTCD traffic signal warrants 1 and 2 for all Near-Term baseline and Plus Project scenarios.	**(a)**
		QUEUE	-	-	-	N/A	N/A	N/A		
20	N Roeben Street / W Ferguson Avenue	LOS	-	-	-	-	-	**X**	**Improvement**: Since this intersection LOS deficiency is expected to occur after the 2028, primarily due to the addition of CASP project's build-out traffic, it is recommended that the proposed project make a 26.2% fair share contribution towards signalizing the intersection. Based on the estimated signalization and interconnect cost of $500,000, the proposed project would contribute up to $131,000 for these future improvements. The addition of these intersection improvements is expected to improve overall intersection LOS operations to acceptable. The intersection does not satisfy the CA MUTCD traffic signal warrants for any Near-Term baseline and Plus Project scenarios. The City may elect to fund other improvements, should the intersection not meet CA MUTCD traffic signal warrants in the future.	**26.2% ($131,000)**
		QUEUE	-	-	-	N/A	N/A	N/A		
23	N Akers Street / W Riggin Avenue	LOS	**X**	**X**	**X**	**X**	**X**	**X**	**Improvement**: To alleviate the intersection LOS deficiency, it is recommended that the proposed project restripe the roadway to provide an additional northbound left-turn pocket and thru lane, and provide an additional eastbound / westbound through lane. Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 300-foot pocket.	**(b)**
		QUEUE	-	-	-	N/A	N/A	N/A		
24	N Akers Street / W Ferguson Avenue	LOS	-	**X**	**X**	**X**	**X**	**X**	**Improvement**: To alleviate the intersection LOS deficiency, it is recommended that the proposed project provide a southbound right-turn pocket (150-foot min), restripe the northbound right-turn lane to a thru lane, and stripe a northbound right-turn pocket (150-foot min), and to provide an eastbound right-turn pocket (150-foot min). Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 215-foot pocket.	**(a)**
		QUEUE	-	**X**	**X**	N/A	N/A	N/A		
25	N Akers Street / W Goshen Avenue	LOS	-	-	-	-	-	-	**Improvement**: The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. It is recommended that the proposed project modify the raised median to extend the existing southbound left-turn pocket to approximately 400-feet, which is the maximum length that is able to be achieved without reducing the northbound left-turn pocket at N Akers St & Elowin Ave.	**(a)**
		QUEUE	-	**X**	**X**	N/A	N/A	N/A		

Note:
(a) Improvement costs at this intersection are expected to be shared by CASP and the proposed project as it provides access to both sites.
(b) The intersection was under construction as of June 2023. It is anticipated that all or a portion these improvements would be constructed. The improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

SITE ACCESS RECOMMENDATIONS (NON-CEQA)

Access to the proposed project would be established through the construction of nineteen (19) driveways, which would satisfy the minimum spacing requirements identified by the City's Design and Improvement Standards (C-32). The southernmost driveway along N Shirk Street (Driveway 19) would align with the neighboring driveway for the recently approved Costco development (22-071), which is proposed to be signalized as part of their opening day access requirements. All other eighteen (18) driveways are proposed to be unsignalized. The following summarizes the project access locations:

Phase 1 (2025)

- Project Driveway 1 (N Kelsey Street)
    - Construct full-access driveway approximately 2,525-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide two (2) outbound lanes to separate right and left turning traffic;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Kelsey St.
- Project Driveways 2 & 4 (N Kelsey Street)
    - Construct full-access driveways approximately 925-feet and 2,200-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Kelsey St.
- Project Driveways 3 & 5 (N Kelsey Street)
    - Construct full-access driveways approximately 325-feet and 1,475-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide two (2) outbound lanes to separate right and left turning traffic;
    - Provide stop-control for outbound movements;
    - Provide northbound right-turn pocket (100-foot minimum); and
    - Stripe two-way left-turn lane along N Kelsey St.
- Project Driveways 7, 8, & 10 (N Clancy St)
    - Construct full-access driveways approximately 550-feet, 1,575-feet and 2,050-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Clancy St.
- Project Driveway 9 (N Clancy St)
    - Construct full-access driveway approximately 1,075-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Clancy St.

Phase 2 (2026)

- Project Driveway 6 (W Riggin Ave)
    - Construct limited-access (outbound left-turn restricted) driveway approximately 1,300-feet east of N Kelsey Street;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide westbound right-turn pocket (150-foot minimum); and
    - 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
- Project Driveways 11 & 14 (N Clancy St)
    - Construct full-access driveways approximately 550-feet and 2,050-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements;
    - Provide northbound right-turn pocket (100-foot minimum); and
    - Stripe two-way left-turn lane along N Clancy St.
- Project Driveways 12 & 13 (N Clancy St)
    - Construct full-access driveways approximately 1,075-feet and 1,575-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Clancy St.
- Project Driveway 16 (W Riggin Ave)
    - Construct right-in/right-out driveway approximately 375-feet west of N Shirk Street;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide westbound right-turn pocket (150-foot minimum), extending to the transit pad/pullout on the northwest corner of N Shirk St / W Riggin Ave; and
    - Raised median along W Riggin Ave constructed as part of City's CIP.
- Project Driveway 19 (N Shirk St)
    - Construct full-access driveway approximately 660-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide southbound right-turn pocket (150-foot minimum);
    - Provide northbound left-turn pocket (200-foot minimum);
    - Provide eastbound left-turn pocket (150-foot minimum) and through/right-turn lane; and
    - Modify the traffic signal installed by the recently approved Costco development (22-071) or coordinate with Costco development team for implementation of these improvements as part of their opening day access requirements.

Phase 3 (2028)

- Project Driveway 15 (W Riggin Ave)
    - Construct limited-access (outbound left-turn restricted) driveway approximately 1,250-feet west of N Shirk Street;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide westbound right-turn pocket (150-foot minimum); and
    - 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
- Project Driveway 17 (N Shirk St)
    - Construct right-in/right-out driveway approximately 1,950-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Construct the raised median along N Shirk St to restrict left-turn movements; and
    - Provide southbound right-turn pocket (150-foot minimum).
- Project Driveway 18-Sedona Ave (N Shirk St)
    - Construct limited-access (outbound left-turn restricted) driveway approximately 1,325-feet north of W Riggin Avenue, along the Sedona Avenue roadway alignment;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide 300-foot northbound left-turn pocket within median along N Shirk St to restrict outbound left-turns; and
    - Provide southbound right-turn pocket (150-foot minimum).

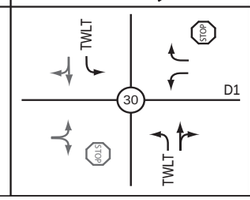
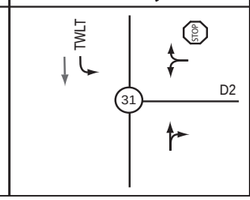
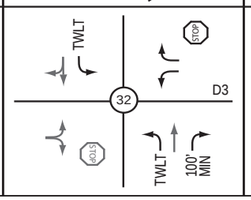
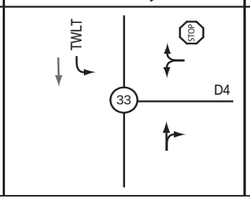
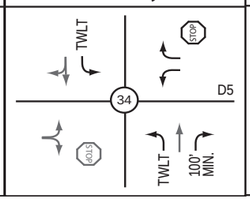
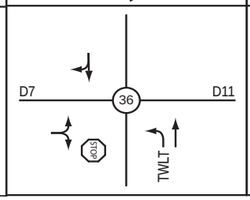
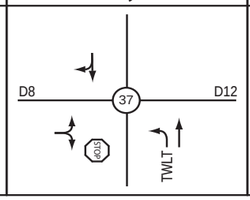
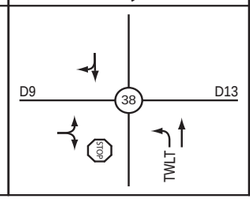
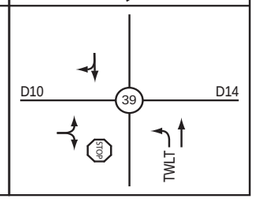
Figure E-2 summarizes the recommended access improvements for each phase of development. **Table E-2** summarizes the access improvements, broken down by development phase it is required for.

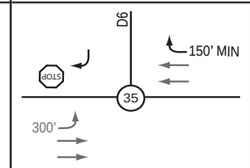
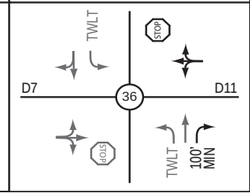
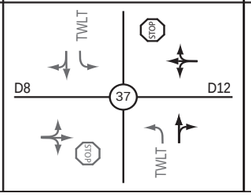
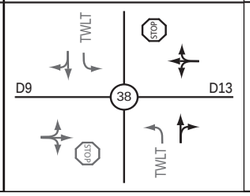
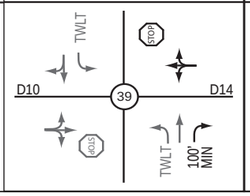
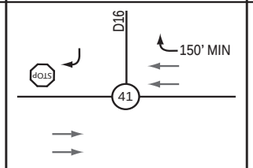
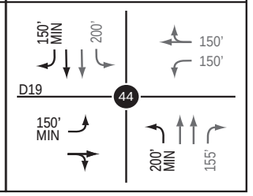
The Project shall maintain visibility for each access driveway so that vehicles exiting the driveways are able to observe oncoming vehicles along the intersecting roadway. These obstructions may include landscaping, monument signs, utility cabinets, etc. but would exclude signal poles, streetlights, and traffic signs.

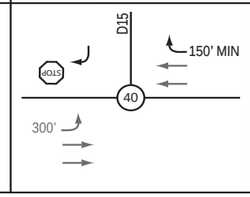
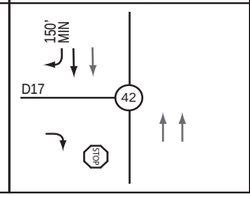
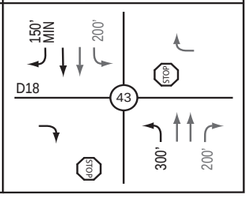
ADDITIONAL RECOMMEDATIONS (NON-CEQA)

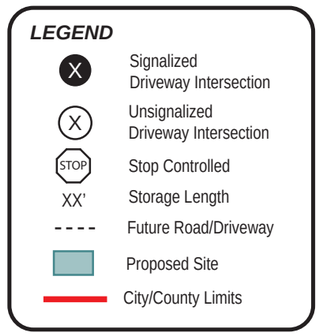
The proposed project would dedicate a 25-foot setback (measured from top toe of the bank) along Modoc Ditch to meet storm drain and flood control requirements. This setback would provide space for the planned Class I bikeway along the Murdoc Ditch (see VMT mitigation above). The City would reimburse the proposed project for 13-feet of the setback, for the potion not encumbered for a maintenance road. This reimbursement would be funded by the Waterways and Trails Impact Fee fund.

FIGURE E-2 SUMMARY OF ACCESS RECOMMENDATIONS

	N Kelsey Street/ Driveway 1	N Kelsey Street/ Driveway 2	N Kelsey Street/ Driveway 3	N Kelsey Street/ Driveway 4	N Kelsey Street/ Driveway 5	N Clancy Street/ Driveway 7 & 11	N Clancy Street/ Driveway 8 & 12	N Clancy Street/ Driveway 9 & 13	N Clancy Street/ Driveway 10 & 14
PHASE 1 - 2025									

	Driveway 6/ W Riggin Avenue	N Clancy Street/ Driveway 7 & 11	N Clancy Street/ Driveway 8 & 12	N Clancy Street/ Driveway 9 & 13	N Clancy Street/ Driveway 10 & 14	Driveway 16/ W Riggin Avenue	N Shirk Street/ Driveway 19 & Costco Dwy
PHASE 2 - 2026							

	Driveway 15/ W Riggin Avenue	N Shirk Street/ Driveway 17	N Shirk Street/ Driveway 18/Sedona Ave
PHASE 3 - 2028			



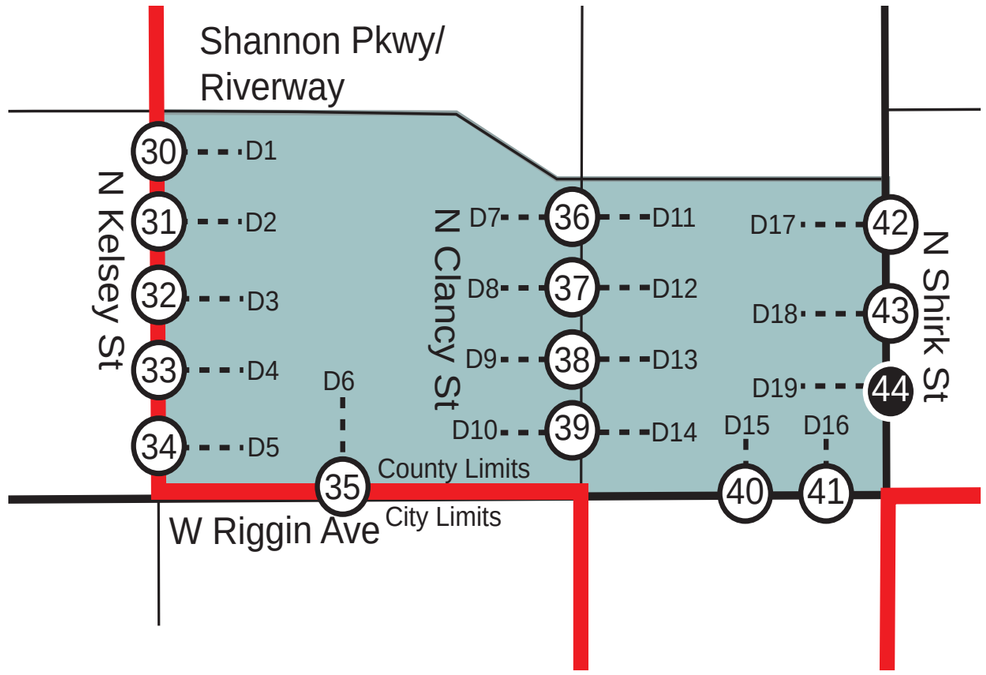


TABLE E-2 SUMMARY OF ACCESS RECOMMENDATIONS

SUMMARY OF ACCESS RECOMMENDATIONS

#	Driveway	Access Recommendation
Phase 1 (2025)		
30	N Kelsey St & Driveway 1	Construct full-access driveway approximately 2,525-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide two (2) outbound lanes to separate right and left turning traffic; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Kelsey St.
31	N Kelsey St & Driveway 2	Construct full-access driveway approximately 2,200-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Kelsey St.
32	N Kelsey St & Driveway 3	Construct full-access driveway approximately 1,475-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide two (2) outbound lanes to separate right and left turning traffic; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Kelsey St.
33	N Kelsey St & Driveway 4	Construct full-access driveway approximately 925-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Kelsey St.
34	N Kelsey St & Driveway 5	Construct full-access driveway approximately 325-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide two (2) outbound lanes to separate right and left turning traffic; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Kelsey St.
36	Future N Clancy St & Driveway 7	Construct full-access driveway approximately 2,050-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
37	Future N Clancy St & Driveway 8	Construct full-access driveway approximately 1,575-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
38	Future N Clancy St & Driveway 9	Construct full-access driveway approximately 1,075-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
39	Future N Clancy St & Driveway 10	Construct full-access driveway approximately 550-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
Phase 2 (2026)		
35	W Riggin Ave & Driveway 6	Construct limited-access (outbound left-turn restricted) driveway approximately 1,300-feet east of N Kelsey Street; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide westbound right-turn pocket (150-foot minimum); and 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
36	Future N Clancy St & Driveway 11	Construct full-access driveway approximately 2,050-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Clancy St.
37	Future N Clancy St & Driveway 12	Construct full-access driveway approximately 1,575-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
38	Future N Clancy St & Driveway 13	Construct full-access driveway approximately 1,075-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
39	Future N Clancy St & Driveway 14	Construct full-access driveway approximately 550-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Clancy St.
41	W Riggin Ave & Driveway 16	Construct right-in/right-out driveway approximately 375-feet west of N Shirk Street; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide westbound right-turn pocket (150-foot minimum), extending to the transit pad/pullout on the northwest corner of N Shirk St / W Riggin Ave; and Raised median along W Riggin Ave constructed as part of City's CIP.
44	N Shirk St & Driveway 19-Costco Driveway	Construct full-access driveway approximately 660-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide southbound right-turn pocket (150-foot minimum); Provide northbound left-turn pocket (200-feet minimum); Provide eastbound left-turn pocket (150-feet minimum) and through/right-turn lane; and Modify the traffic signal installed by the proposed Costco development (22-071) or coordinate with Costco development team for implementation of these improvements as part of their opening day access requirements.
Phase 3 (2028)		
40	W Riggin Ave & Driveway 15	Construct limited-access (outbound left-turn restricted) driveway approximately 1,250-feet west of N Shirk Street; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide westbound right-turn pocket (150-foot minimum); and 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
42	N Shirk St & Driveway 17	Construct right-in/right-out driveway approximately 1,950-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Construct the raised median along N Shirk St to restrict left-turn movements; and Provide southbound right-turn pocket (150-foot minimum).
43	N Shirk St & Driveway 18-Sedona Ave	Construct limited-access (outbound left-turn restricted) driveway approximately 1,325-feet north of W Riggin Avenue, along the Sedona Avenue roadway alignment; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide 300-foot northbound left-turn pocket within median along N Shirk St to restrict outbound left-turns; and Provide southbound right-turn pocket (150-foot minimum).

Note: For the purposes of the TIA and in accordance with the applicant's project development goals, construction of the proposed project is anticipated to begin in March 2024 and completed in March 2028, with operations commencing upon the completion of construction of the proposed project. As described above, given its size and nature, it is reasonable to assume the proposed project would be constructed in phases over time. However, because various market, economic and other considerations would ultimately determine how construction phasing would occur in connection with individual specific development proposal(s), this TIA utilizes the following assumptions based on reasonably available information for purposes of a conservative analysis:

1. INTRODUCTION

The following Traffic Impact Analysis (TIA) has been prepared to analyze potential Vehicle Miles Traveled (VMT) impacts pursuant to the requirements of the California Environmental Quality Act (Public Resources Code [PRC] § 21000 *et seq*. and the CEQA Guidelines § 15000 *et seq*.) (collectively, CEQA) as well as to evaluate any non-CEQA Level of Service (LOS) deficiencies associated with the Shirk & Riggin Industrial Park ("proposed project"), a mixed-use industrial park proposed in unincorporated Tulare County (County), adjacent to the northern municipal boundary of the City of Visalia (City). The approximately 284-acre project site is generally bound by Riggin Avenue to the south, Shirk Street to the east, Kelsey Street to the west, and Modoc Ditch to the north. The future N Clancy Street intersects the project site from south to north. The project site is comprised of three parcels: APNs 077-840-001, 077-840-002, and 077-840-003. The project site is currently zoned AE-40 on the County's Zoning Map.[1] The AE-40 Zone is intended for intensive and extensive agricultural uses, which is the current use. The entire project site is within the City's Planning Area,[2] Urban Development Boundary (UDB) Tier 1 of the City, and the City's Sphere of Influence and has a City of Visalia General Plan (General Plan) land use designation of Industrial and Light Industrial.[3]

The City's General Plan Light Industrial designation is intended for light manufacturing, warehousing, storage, distribution, research and development enterprises, and secondary office (limited customer access) uses. This designation also conditionally permits uses like convenience store and drive-thru restaurants. The City's General Plan Industrial designation allows uses such as primary manufacturing, processing, refining, and similar activities including those with outdoor facilities. It also accommodates warehousing and distribution with supporting commercial services and office space. Seefried Industrial Properties (Applicant) proposes to develop the approximately 284-acre project site, which currently is being used for agricultural purposes consisting of an actively managed almond orchard, established around 2018, with a mixed-use industrial park. Specifically, the proposed project would discontinue the existing agricultural uses, demolish remaining on-site structures that serve the current agricultural uses, and develop a mixed-use industrial park totaling approximately 3,720,149 square feet of light industrial and flex industrial uses along with car/trailer parking areas and related on- and off-site improvements. The proposed project would consist of eight (8) industrial buildings used for warehouse, distribution, and light manufacturing; six (6) flex industrial buildings offering small incubator space for small manufacturing, storage, and limited warehouse space; two drive-thru fast food/quick serve restaurants; a convenience store; a recreational vehicle (RV) and self-storage facility; a gas station; and a car wash (collectively, proposed project).

The project site would include sufficient amounts of trailer stalls and car parking stalls to serve the proposed uses in accordance with applicable City requirements. The proposed project would also involve necessary on- and off-site infrastructure and improvements sufficient to serve the proposed uses. The proposed

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[1] County of Tulare. Public Parcel Zoning Lookup. Website: https://tularecounty.maps.arcgis.com/apps/webappviewer/index.html?id=e7d7da648dab43e1a9eb0233889b7c32. Accessed August 17, 2022.

[2] "Planning area" refers to the land area addressed by a General Plan, including land within the city limits and land outside the city limits that bears a relation to the city's planning. For purposes of the City's Planning Area, not all portions are intended for urban development; rather, the City's Urban Development Boundary shows the future urban development area pursuant to the City's land use vision reflected in its General Plan.

[3] City of Visalia. 2014. General Plan Land Use Element. Website: https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30474. Accessed August 17, 2022.

project includes nineteen (19) driveways that would intersect the public streets; three (3) along W Riggin Avenue, five (5) along N Kelsey Street, eight (8) along N Clancy Street and three (3) along N Shirk Street. An internal network of drive aisles would connect the overall project. **Figure 1** depicts the proposed project's location and study area. **Figure 2** shows the proposed site plan.

For the purposes of the TIA and in accordance with the applicant's project development goals, construction of the proposed project is anticipated to begin in March 2024 and completed in March 2028, with operations commencing upon the completion of construction of the proposed project[4]. As described above, given its size and nature, it is reasonable to assume the proposed project would be constructed in phases over time. However, because various market, economic and other considerations would ultimately determine how construction phasing would occur in connection with individual specific development proposal(s), this TIA utilizes the following assumptions based on reasonably available information for purposes of a conservative analysis:

- Phase 1, construction assumed to begin in March 2024 and completed in March 2025
    - 1,864,680 SF Light Industrial (Buildings 1 & 2)
- Phase 2, construction assumed to begin in September 2025 and completed in September 2026
    - 830,700 SF Light Industrial (Buildings 3, 4 & 7)
    - 6,920 SF Gas Station/Convenience Market (with 12 vehicle fueling stations)
    - 4,740 SF Fast-food Restaurant (with Drive-through)
    - 4,560 SF Car Wash
- Phase 3, construction assumed to begin in March 2027 and completed in March 2028
    - 779,270 SF Light Industrial (Buildings 5, 6 & 8)
    - 84,480 SF Flex Industrial
    - 144,800 SF Mini-Storage (with RV parking)

The necessary roadway, access and parking would be included in each of the 3 Phases, sufficient to serve each relevant Phase. While the above-described preliminary construction schedule for the proposed project assumes that Phases 1 through 3 would be built sequentially (i.e., none of the three Phases would overlap), the potential remains for project Phases to be constructed concurrently. Therefore, for the purpose of analyzing the reasonable worst-case scenario and fully disclosing all potential impacts, this TIA evaluates deficiencies that would occur for the buildout of the proposed project. Accordingly, deficiency discussions and recommendations related to each construction Phase would be applicable to an individual specific development proposal taking place within the development area covered by the relevant Phase.

The project site would be annexed into the City limits, and upon annexation, would be served by the City for purposes of water, wastewater, and stormwater as well as other non-utility public services. The City, in its discretion, has determined that a project-level Environmental Impact Report (EIR), along with supporting documents and technical studies, will be prepared for purposes of CEQA compliance for the proposed project. Kimley-Horn has prepared this TIA as part of the entitlement process and related CEQA review for the proposed project, and in support to the EIR and associated technical studies.

[4] Because vehicle fuel use becomes more efficient through time in compliance with applicable federal and State laws and regulations, these dates support a conservative evaluation of potential impacts. If the actual dates of construction are delayed, associated effects would be reduced accordingly.

FIGURE 1 PROJECT SITE LOCATION AND STUDY INTERSECTIONS

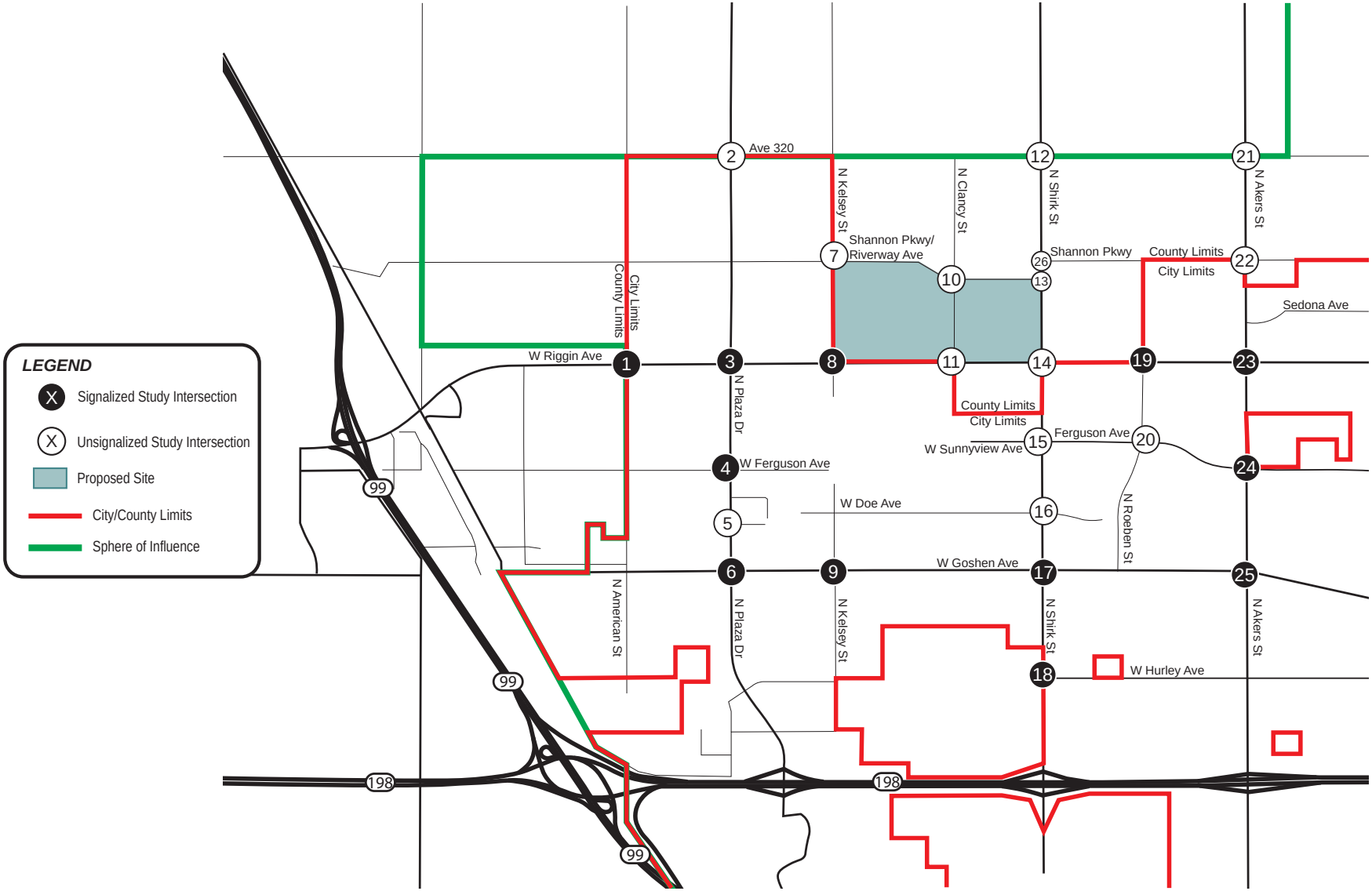
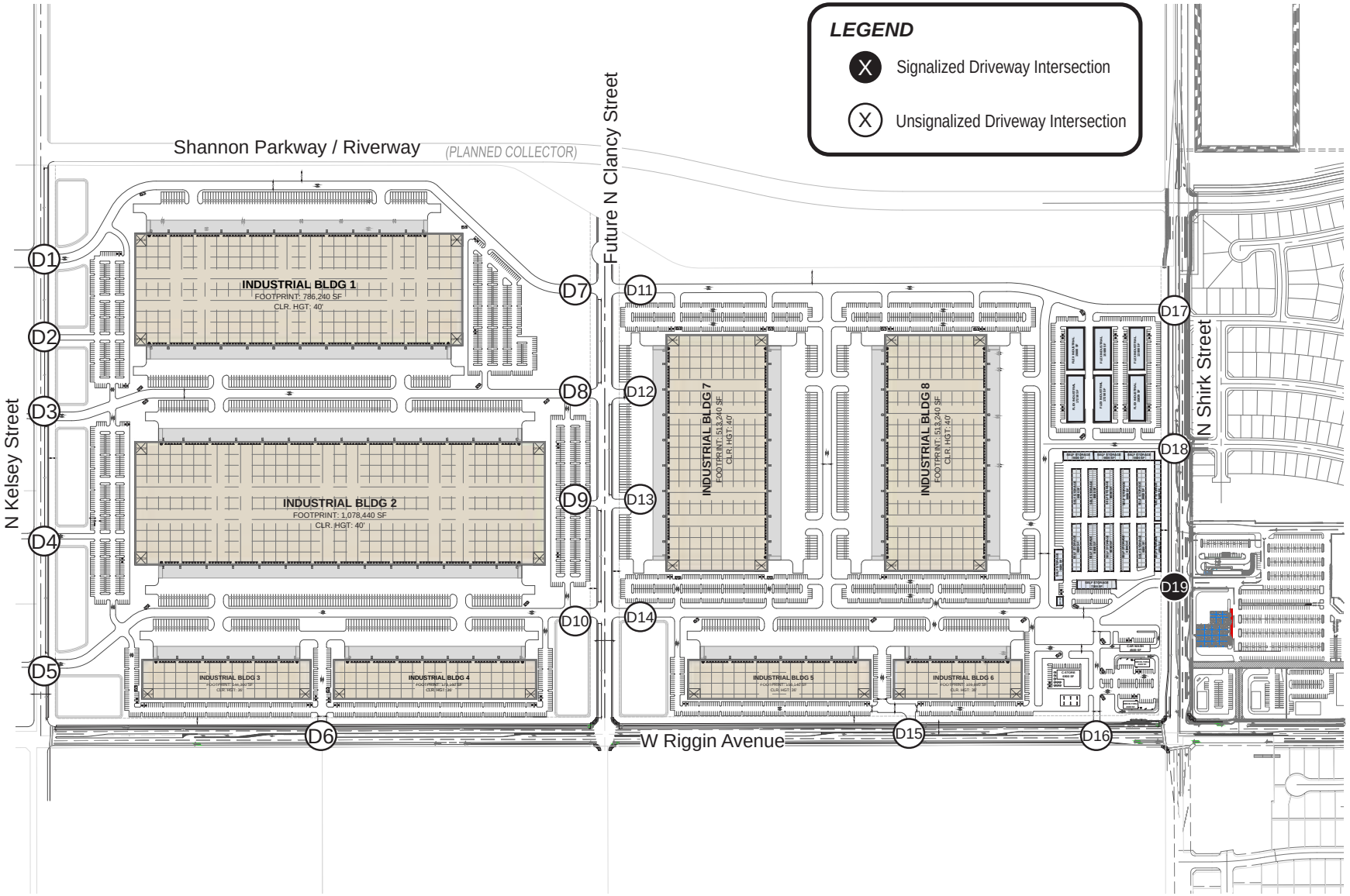


FIGURE 2 SITE PLAN



The TIA adheres to the required assumptions/parameters outlined in the City of Visalia's *Procedures for Traffic Impact Analysis (TIA)*[5] and input from City and County staff. The TIA includes a CEQA Transportation Analysis for the evaluation of Vehicle Miles Traveled (VMT) and a non-CEQA Local Transportation Analysis (LTA) for evaluation of Level Of Service (LOS). As described more fully below, this TIA identifies any project-related VMT (CEQA) impacts based on criteria set forth in the City's guidelines, and recommends feasible mitigations to reduce VMT. This TIA also identifies any project-related LOS (non-CEQA) deficiencies based on criteria set forth in the City's guidelines, and recommends feasible improvements to address any identified LOS (non-CEQA) deficiencies.

STUDY AREA

The full build-out of the proposed project is estimated to generate just over 1,500 peak hour trips during the AM peak hour and just under 1,500 peak hour trips during the PM peak hour (1,508 AM / 1,495 PM), detailed later. The City's TIA guidelines recommend a Category IV TIA for developments that generate between 1,000 and 1,500 peak hour trips, and a Category V TIA for developments that generate more than 1,500 peak hour trips. However, since the Project is on the edge of the City, away from high density development, and just slightly exceeds the 1,500 peak hour trip total, the proposed project would generally follow Analysis Category IV requirements.

The City's TIA guidelines require an analysis of all access driveways and major intersections within 1 mile of the site for a Category IV analysis, plus any additional locations requested by City. The proposed study intersections were outlined in a scope of work, which was reviewed/approved by the City for use in this TIA, and is included in **Appendix A**. The study intersections were selected in adherence with the City's requirement of all site access drives, major intersections within 1 mile, either signalized or unsignalized, and driveways/intersections where traffic movements could be affected by new driveway traffic movements. Based on this coordination with City staff, the intersections shown in **Table 1** were evaluated. Figure 1 illustrates the intersection locations.

[5] City of Visalia. March 2021. Procedures for Traffic Impact Analysis (TIA). Website: https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=41216. Accessed April 20, 2022.

Table 1 – Study Intersections

#	Intersection	#	Intersection
1	N American St / W Riggin Ave (S)	14	N Shirk St / W Riggin Ave (U)
2	N Plaza Dr / Avenue 320 (U)	15	N Shirk St / W Sunnyview Ave and Ferguson Ave (U)
3	N Plaza Dr / W Riggin Ave (S)	16	N Shirk St / W Doe Ave (U)
4	N Plaza Dr / W Ferguson Ave (S)	17	N Shirk St / W Goshen Ave (S)
5	N Plaza Dr / Private Access Road (U)	18	N Shirk St / W Hurley Ave (S)
6	N Plaza Dr / W Goshen Ave (S)	19	N Roeben St / W Riggin Ave (U)
7	N Kelsey St / Shannon Pkwy-Riverway Ave (U)	20	N Roeben St / W Ferguson Ave (U)
8	N Kelsey St / W Riggin Ave (S)	21	N Akers St / Avenue 320 (U)
9	N Kelsey St / W Goshen Ave (S)	22	N Akers St / Future Shannon Pkwy (U)
10	Fut. N Clancy St / Unnamed North Road (U)	23	N Akers St / W Riggin Ave (S)
11	Fut. N Clancy St / W Riggin Ave (U)	24	N Akers St / W Ferguson Ave (S)
12	N Shirk St / Avenue 320 (U)	25	N Akers St / W Goshen Ave (S)
13	N Shirk St / Shannon Pkwy (U)	26	N Shirk St / Shannon Parkway (U)

(S) – Signalized Intersection / (U) – Unsignalized Intersection

All nineteen (19) access driveways were also analyzed.

METHODOLOGY

VEHICLE MILES TRAVELED (CEQA)

Senate Bill 743 (SB 743) was approved by the California legislature in September 2013. SB 743 requires changes to CEQA, specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular LOS for evaluating transportation impacts of projects. OPR updated guidelines for CEQA and wrote a technical advisory for evaluating transportation impacts in CEQA in December 2018 (OPR Technical Advisory). OPR recommended that VMT replace LOS as the primary measure of transportation impacts.

Because the proposed project's site would be annexed into the City, the evaluation of VMT was conducted in accordance with the City's adopted VMT Thresholds and Implementation Guidelines[6], consistent with other recently approved/annexed projects. These guidelines provide direction to reviewing agency staff, consultants, and project applicants regarding the methodologies and thresholds to be used for VMT analysis within the City of Visalia. The guidelines also provide basic principles for conducting VMT analysis based on OPR Technical Advisory, with revisions made to reflect local characteristics of the City, specifically non-residential/office/retail land uses.

OPR and City guidelines do not specifically provide guidance regarding project phases. The proposed project will be built in three phases over the period of approximately 4 years. However, for the purposes of the VMT analysis, only the project's full buildout condition was assessed.

[6] City of Visalia VMT Thresholds and Implementation Guidelines, Adopted March 15, 2021

Impact Criteria

The thresholds of significance, as adopted by the City, are summarized below:

- Residential – exceeds a level of 16 percent below existing regional average VMT per capita;
- Office – exceeds a level of 16 percent below existing regional average VMT per employee;
- Retail – any net increase in total VMT;
- Other (consistent with General Plan) – any net increase in VMT per employee; and
- Other (not consistent with General Plan) – exceeds a level of 16 percent below existing regional average VMT per employee.

Based on the available land use category options, it was determined that the proposed project would fall under the category of Other uses as the VMT related to the proposed project is primarily produced by industrial employees. As noted above in the project description, the proposed project involves an industrial use. Therefore, it is reasonable to conclude that the proposed project is consistent with the Industrial and Light Industrial land use designations that currently apply to the project site and should be treated as "consistent with General Plan". Therefore, the proposed project would result in a significant CEQA transportation impact if the project VMT per employee exceeds the average VMT per employee for the Traffic Analysis Zone (TAZ) where the project is located. For consistency with the City, the VMT metric for the proposed project conditions was calculated by using the same Tulare County Association of Governments (TCAG) Travel Demand Model and recommended methodology. TCAG model is a tool used to forecast travel patterns in Tulare County based on estimated future land use and roadway network changes, as well as determination of VMTs.

LOCAL TRANSPORTATION ANALYSIS (NON-CEQA)

A non-CEQA Local Transportation Analysis (LTA) was conducted to evaluate the proposed project's effect on traffic operations within the study area. This analysis evaluates intersection LOS, signal warrants, queuing, and collisions. The LTA also analyzes site access/circulation such as the need for exclusive turn lanes and recommendations for alternative modes of transportation (transit, bicycle, pedestrian, etc.).

Analysis Scenarios

This LTA evaluates the following traffic scenarios:

- Existing (2022) Conditions: Based on existing intersection data collected in 2022 (7-9 AM / 4-6 PM peak hour counts at signalized intersections and 6 AM – 8 PM counts at unsignalized locations). Existing roadway geometry and traffic control, as of June 2022, are evaluated by this scenario. This Existing (2022) Conditions scenario does not include project traffic.
- Near-Term Conditions: Represents the conditions assumed in years 2025, 2026 and 2028, the projected Phase 1, 2 and 3 opening years of the proposed project. Existing traffic volume data collected was increased by 2% annually to account for ambient growth in the vicinity. Additionally, traffic generated by cumulative projects[7] in the vicinity was included. These scenarios do not include project traffic.
- Near-Term Conditions Plus Project: Represents the conditions in years 2025, 2026 and 2028 with the addition of the Phase 1, 2 and 3 proposed improvements and expected trip generation respectively. Comparison of this scenario to the Near-Term Conditions scenario determines whether deficiencies are a direct result of the proposed project.
- Long-Term Conditions: Represents the conditions assumed in years 2033, 2038 and 2048, 5, 10 and 20 years after the projected buildout of the proposed project. Future traffic volumes were developed using TCAG Regional Travel Demand Forecast Model traffic projections. Additionally, traffic generated by known/approved developments (cumulative projects) in the vicinity that are expected to be completed after the proposed project's assumed buildout year of 2028 were included. These scenarios do not include project traffic.
- Long-Term Conditions Plus Project Buildout: Represents the conditions in years 2033, 2038 and 2048 with the addition of all the proposed project's improvements and expected trip generation. Comparison of this scenario to the Long-Term Conditions scenarios determines the proposed project's pro rata fair share contribution to the identified future deficiencies.

Level of Service

Although CEQA now recognizes VMT as the primary analysis methodology for transportation impacts for purposes of CEQA, intersection LOS and queuing were also analyzed as part of a non-CEQA evaluation to determine the operational effects of nearby study intersections due to the proposed project. Analysis of intersection deficiencies was based on the concept of LOS. The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity.

Intersection

Intersection LOS for this TIA was determined using methods defined in the *Highway Capacity Manual, 6th Edition* (HCM 6) within the *Synchro 11* analysis software. HCM 6 includes procedures for analyzing side street stop controlled (SSSC), all-way stop controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for the worst minor street movement or major street left-turn. Conversely, the AWSC and signalized intersection procedures define LOS as a function of

[7] Developments identified by City of Visalia staff to be in the planning process or approved, but not constructed. Information was provided following acceptance of the scoping letter for this TIA, in August 2022.

average control delay for the intersection as a whole. **Table 2** relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Table 2 – Intersection Level of Service Definitions

Level of Service	Description	Signalized (Avg. control delay per vehicle sec/veh.)	Unsignalized (Avg. control delay per vehicle sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	≤ 10	≤ 10
B	Stable traffic. Traffic flows smoothly with few delays.	> 10 – 20	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	> 20 – 35	> 15 – 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	> 35 – 55	> 25 – 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	> 55 – 80	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 80	> 50

Sources: Highway Capacity Manual, Transportation Research Board.

The following assumptions were included in the analysis:

- Peak-hour factor (PHF) based on the existing traffic data was used for the Existing and Near-Term scenarios. 0.92 PHF used for the Long-Term scenarios.
- Heavy Vehicle (HV) percentage based on the existing traffic data collected, which was then applied to all analysis scenarios.
- Traffic signal timing assumptions based on existing signal phasing and augmented for traffic volumes analyzed.

Queuing

Queues that exceed the turn pocket length can create potentially hazardous conditions by blocking or disrupting through traffic in adjacent travel lanes. However, these potentially hazardous queues are generally associated with left-turn movements. Locations where the right-turn pocket storage is exceeded are generally not considered hazardous because the right-turn movements generally receive “green indications” at the same time as the adjacent through movement. Therefore, any additional vehicles that spill out of the right-turn pocket will likely not hinder nor disrupt the adjacent through traffic, as would be the case in most left turn pockets.

The effects of vehicle queuing for all exclusive turn-lanes was analyzed by reporting the 95th percentile queues. The 95th percentile queue length represents a condition where 95 percent of the time during the peak hour, traffic queues are expected to be less than or equal to the queue length estimated by the analysis. This is referred to as the “95th percentile queue”, which is less than the average queuing. The 95th percentile queue length was determined using HCM 6 methodology via *Synchro 11* Software.

Signal Warrants

Traffic signals may be justified when traffic operations fall below acceptable LOS standards and when one or more signal warrants are satisfied. Per the City's *Procedures for Traffic Impact Analysis*, traffic volumes at the unsignalized study intersections were compared against the 8-hour and 4-hour warrants in the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD)[8]. The CA MUTCD recommends the peak hour warrant be evaluated in unusual cases, such as office complex, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. This warrant is recommended to only be considered at intersections that provide direct access to proposed project site (Intersections 7, 11 and Driveway 18). Following the County's guidelines, the peak hour signal warrant was evaluated for the intersections under the County's jurisdiction (Intersections 7, 10, 11, 12, 13, 21, 22 and Driveway 18). Therefore, the peak hour warrant did not apply to Intersections 15 and 20.

Deficiency Criteria

Potential deficiencies were determined by comparing conditions with the proposed project to those without the proposed project.

Level of Service Criteria

The City of Visalia General Plan and TIA guidelines indicate that the minimum acceptable LOS standard is LOS D.

Policy TC-1.16, County Level Of Service (LOS) Standards, presented in Chapter 13 of the 2030 Update of the Tulare County General Plan dated August 2012 (County General Plan) states: "The County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of "D" or better in accordance with the LOS definitions established by the Highway Capacity Manual."

Based on the language contained in the City and County General Plans, a project induced deficiency would occur if the addition of project traffic would cause a facility that is operating acceptably (LOS A, B, C, or D) to begin to operate unacceptably (LOS E or F). For facilities already operating unacceptably (LOS E or F) without project traffic, an addition of project traffic that would result in an increase of delay of 5.0 seconds or more, would be considered a project deficiency.

Vehicle Queueing

Unacceptable or extended queuing is defined as spill over from turn pockets into through lanes and/or spill over into adjacent intersections. The City does not have specific thresholds for identifying project-related queueing deficiencies. This study assumes spill over to mean that the estimated 95th percentile queue for a turn pocket where project trips are added, exceeds available storage by more than one car length, or 25-feet. If a turn pocket is anticipated to exceed available storage under no-project conditions, the proposed project would be expected to cause constrained access for that movement if it increases the deficient queue by more than 25-feet.

[8] *California Manual on Uniform Traffic Control Devices,* (FHWA's MUTCD 2009 Edition, including Revisions 1 & 2 as amended for use in California), 2014 Edition, Revision 6 (March 30, 2021)

REPORT ORGANIZATION

The remainder of this TIA is divided into the following chapters:

- Chapter 2 – Existing (2022) Conditions: describes the existing conditions of roadway network, transit system, bicycle network and pedestrian facilities, and summarizes existing traffic data collected.
- Chapter 3 – Project Description: describes proposed site uses, assumed construction phasing, proposed street/access improvements and project-related trip generation/distribution/assignment.
- Chapter 4 – Vehicle Miles Traveled (VMT) analysis: summarizes methodology, inputs, assumptions, results and conclusion of the VMT analysis. (CEQA)
- Chapter 5 – Local Transportation Analysis (LTA): describes the supplemental traffic operation analysis which includes an analysis of Level Of Service (LOS), queuing and signal warrants. (non-CEQA)
- Chapter 6 – Site Access and Circulation: describes site access and internal circulation for the proposed project. (non-CEQA)
- Chapter 7 – Summary of Impacts, Deficiencies and Recommendations: summarizes potential impacts (CEQA) and deficiencies (non-CEQA) of the proposed project and recommended feasible mitigations and improvements.

2. EXISTING (2022) CONDITIONS

This chapter describes the existing conditions of the roadway network, transit service, bicycle network, pedestrian facilities, and bicycle facilities within the vicinity of the project site, and presents the existing turning movement volumes collected.

EXISTING ROADWAY NETWORK

STATE ROUTE 99

State Route 99 (SR 99) is a six-lane, north-south divided highway. SR 99 intersects the SR 198 approximately 1-mile from the study area. The posted speed limit within the study area is 70 mph.

STATE ROUTE 198

State Route 198 (SR 198) is a four-lane, east-west divided highway connecting to US Route 101 in the west near King City and the Sequoia National Park entrance, east of Three Rivers. The road continues on as the Generals Highway, where it connects to State Route 180 (SR 180) near Grant Grove Village. The roadway provides connection for residential, commercial, industrial, and agricultural land uses from the Central Coast to the Central Valley through the counties of Monterey, Fresno, Kings, and Tulare. SR 198 intersects the north-south routes Interstate 5 and State Route 99. The posted speed limit within the study area is 65 mph.

N PLAZA DRIVE

N Plaza Drive is a classified arterial and a future Class II bike facility running north-south between Ave 320 and SR-198. The roadway is currently constructed as a four-lane, divided road. The speed limit ranges from 50 to 65 miles per hour. Within the study area, there are limited existing pedestrian improvements and Class II bike facilities are only existing north of SR 198.

N KELSEY STREET

N Kelsey Street is a classified collector running north-south between Ave 320 and W Hurley Avenue. The roadway is currently constructed as a two-lane, undivided road. There is an approximately 2,300-foot section that is undeveloped south of W Riggin Avenue to just north of W Doe Avenue. There is no posted speed limit within the study area. There are no existing bicycle features and limited pedestrian improvements.

N SHIRK STREET

N Shirk Street is a classified arterial and a future Class II bike facility running north-south between Avenue 320 and Avenue 272. The roadway is currently constructed as a two-lane, undivided road. The speed limit on the segment ranges between 40 to unposted 55 miles per hour. The roadway is classified as a greenway and as a future Class II bike facility. There are no existing bicycle features and limited pedestrian improvements.

N AKERS STREET

N Akers Street is a classified arterial and a future Class II bike facility running north-south between Avenue 320 and Avenue 272. The roadway is currently constructed as a four-lane, divided road north of W Visalia

Parkway. South of W Visalia Parkway, the roadway is currently constructed as a two-lane, undivided road. The speed limit on the segment ranges from 35 to 50 miles per hour. Bike lanes are present between Porter Avenue and W Ferguson Avenue. A sidewalk is present along a significant portion of the street, but missing adjacent to undeveloped parcels.

AVENUE 320

Avenue 320, also named Kibler Avenue, is a classified arterial roadway running east-west between Road 68 and Road 108. The roadway is currently constructed as a two-lane, undivided road. There is no posted speed limit within the study area, therefore, the speed limit is 55 mile per hour per County ordinance. There are no existing bicycle features and limited pedestrian improvements.

SHANNON PARKWAY-RIVERWAY AVENUE

Shannon Parkway-Riverway Avenue is a classified collector roadway running east-west between N Akers St and N Demaree St. The roadway is currently constructed as a two-lane, undivided road between N Demaree St and Mooney Blvd, and a four-lane, divided road between Mooney Blvd and Dinuba Blvd. The segment between Demaree St and Dinuba Blvd has a posted speed of 40 miles per hour. Outside of these limits, the speed limit is 55 mile per hour per County ordinance. There are no existing bicycle features and limited pedestrian improvements.

W RIGGIN AVENUE

W Riggin Avenue is a classified arterial roadway and future Class II bike facility running east-west between SR-99 and St. Johns Parkway. The roadway is currently constructed as a four-lane, divided road west of N Kelsey St. between N Kelsey St and Demaree St, the roadway is currently constructed as a two-lane, undivided road. Between Demaree St and Mooney Blvd, the roadway is constructed as a four-lane, divided road. Between Mooney Blvd and Dinuba Blvd, the roadway is constructed as a two-lane, undivided road. Between Dinuba Blvd and St. Johns Pkwy, the roadway is constructed as a two-lane, undivided road. West of Linwood St, there is no posted speed limit within the study area. Between Linwood St and St. Johns Pkwy, the posted speed limit ranges from 45 to 50 miles per hour. There are limited existing bicycle and pedestrian facilities.

W GOSHEN AVENUE

W Goshen Avenue is a classified arterial roadway and existing Class I bike facility running east-west between SR-99 and Lovers Lane. The roadway is currently constructed as a four-lane, divided road. The speed limit ranges from 35 to 55 miles per hour. Within the study area, there are limited existing bicycle and pedestrian improvements. A Class I bike lane is present on the north side of Goshen, between the SR-99 and S Giddings Street. There are limited pedestrian improvements on the south side of the road.

The existing intersection lane configuration and traffic controls, as of June 2022, are illustrated in **Figure 3**.

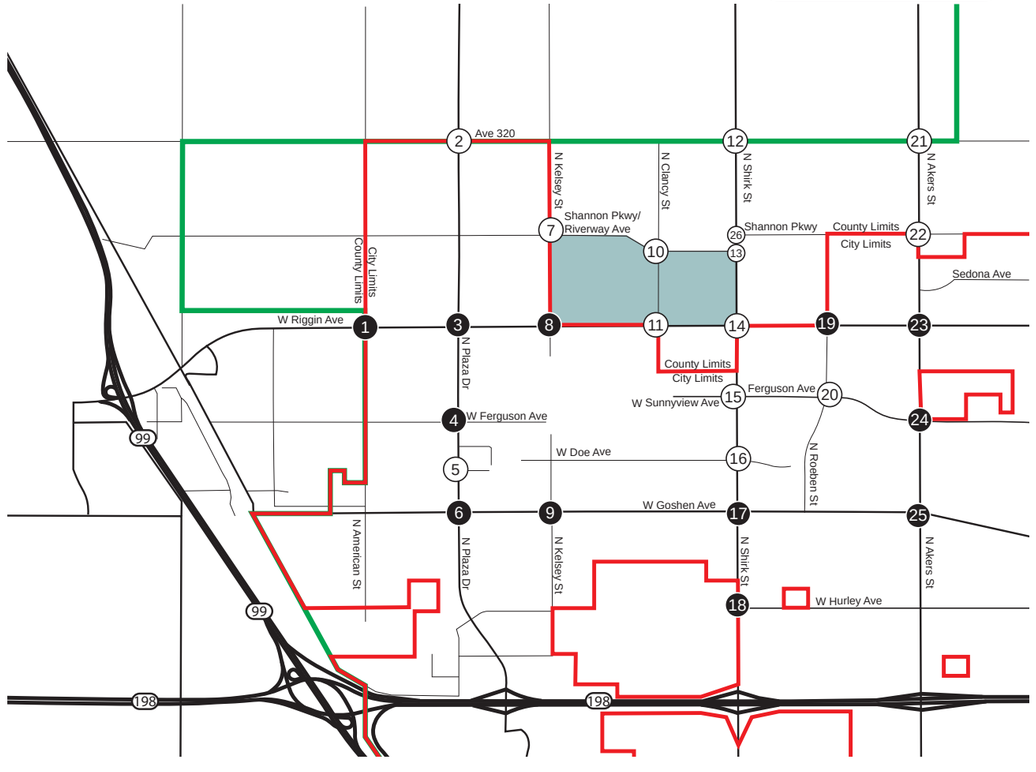
FIGURE 3 EXISTING (2022) TRANSPORTATION CONDITIONS

N American Street/ W Riggin Avenue	N Plaza Drive/ Avenue 320	N Plaza Drive/ W Riggin Avenue	N Plaza Drive/ W Ferguson Avenue
N Plaza Drive/ Private Access Road	N Plaza Drive/ W Goshen Avenue	N Kelsey Street/ Shannon Pkwy/Riverway	N Kelsey Street/ W Riggin Avenue
N Kelsey St/ W Goshen Avenue	Future N Clancy St/ Unnamed North Road	Future N Clancy St/ W Riggin Avenue	N Shirk Street/ Avenue 320
N Shirk Street/ Shannon Pkwy	N Shirk Street/ W Riggin Avenue	N Shirk Street/ W Sunnyview Ave/Ferguson Ave	N Shirk Street/ W Doe Avenue
N Shirk Street/ W Goshen Avenue	N Shirk Street/ W Hurley Avenue	N Roeben Street/ W Riggin Avenue	N Roeben Street/ W Ferguson Avenue

N Akers Street/ Avenue 320	N Akers Street/ Future Shannon Pkwy	N Akers Street/ W Riggin Avenue
N Akers Street/ W Ferguson Avenue	N Akers Street/ W Goshen Avenue	N Shirk Street/ Shannon Pkwy

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Stop Controlled
- XX' Storage Length
- Proposed Site
- City/County Limits
- Sphere of Influence



TRANSIT

Visalia Transit provides bus services for the City of Visalia with multiple bus routes operating within the study area. **Table 3** provides a summary of the bus services in the study area.

Table 3: Existing Transit Service

Route	Description	Weekdays		Weekends	
		Operating Hours	Headway[1] (minutes)	Operating Hours	Headway[1] (minutes)
6	Transit Center – Medical Clinic	6:00 AM – 9:55 PM	60	8:00 AM – 6:55 PM	60
7	Medical Clinic – Target	6:00 AM – 9:48 PM	60	8:00 AM – 5:48 PM	60
15	Transit Center – Goshen Elementary School	6:00 AM – 10:20 PM	45	7:30 AM – 6:35 PM	45
17	Medical Clinic – Kelsey/Hillsdale	6:00 AM –10:30 PM	30	8:00 AM – 6:30 PM	30

Notes:
Table reflects transit schedule effective September 24, 2020 for Route 6 and Route 7, October 14, 2020 for Route 15, and October 10, 2021 for Route 17.
[1] Headways are defined as the time between transit vehicles on the same route. Listed headways are the modes of the headways and rounded to the nearest 5 minutes.

Route 6 is a local bus service that operates between the Visalia Transit Center and the Visalia Medical Clinic. On weekdays, the bus route operates from 6:00 AM to 9:55 PM. On weekends, service is available from 8:00 AM to 6:55 PM. Within the study area, the route runs along N Akers Street between SR-198 and W Goshen Avenue, and along W Goshen east of N Akers Street. The nearest bus stop to the study area is located at Visalia Medical Clinic.

Route 7 is a local bus service that operates between the Visalia Medical Center and Target Shannon Ranch. On weekdays, the bus route operates from 6:00 AM to 9:48 PM. On weekends, service is available from 8:00 AM to 5:48 PM. Within the study area, the route runs along N Akers Street between SR 198 and W Riggin Avenue, and along W Riggin Avenue east of N Akers Street. Bus stops within the study are located near the intersections of N Akers Street / W Goshen Avenue and N Akers Street / W Riggin Avenue.

Route 15 is a local bus service that operates between the Visalia Transit Center and Goshen Elementary School. On weekdays, the bus route operates from 6:00 AM to 10:20 PM. On weekends, service is available from 7:30 AM to 6:35 PM. Within the study area, the route runs along N Shirk Street between SR 198 and W Doe Avenue, W Doe Avenue between N Kelsey Street and N Shirk Street, W Goshen Avenue west of N Kelsey Street, and N Kelsey Street between W Doe Avenue and W Mineral King Avenue. A bus stop is located within the study near the intersection of N Shirk Street / W Doe Avenue. Bus stops are also located near the study area at San Joaquin Valley College and along W Mineral King Avenue.

Route 17 is a local bus service that operates between the Visalia Medical Clinic and the intersection N Kelsey Street / W Hillsdale Court. On weekdays, the bus route operates from 6:00 AM to 10:30 PM. On weekends, service is available from 8:00 AM to 6:30 PM. Within the study area, the route runs along N Shirk Street north of SR-198, along W Riggin Avenue between N Shirk Street and N Plaza Drive, and along N Plaza Drive south of W Goshen Avenue. Bus stops within the study are located near the N Kelsey Street / W Riggin Avenue, and along W Riggin Avenue east of N Plaza Drive.

Appendix B contains maps, schedules and additional information of the available transit services described in this section.

PEAK-HOUR TURNING MOVEMENT VOLUMES

Intersection turning movement volumes for the signalized study area intersections were collected during the typical 7-9 AM and 4-6 PM commuter peak periods. For the unsignalized intersections, volumes were collected for a 14-hour period between 6 AM and 8 PM. Data was collected at eighteen (18) of the study intersections in April/May 2022, when local schools were in session. 48-hour roadway directional volumes were also collected along W Riggin Avenue, N Kelsey Street and N Shirk Street, adjacent to the project site, for the development of driveway volumes. Vehicular classification was obtained from the intersection data.

Per the City's request during the scoping of this TIA, seven (7) additional intersection turning movement volumes were collected in June 2022, after the summer break had commenced. To normalize this supplemental traffic data collected during the summer, 48-hour roadway counts were recollected at the same three (3) locations along W Riggin Avenue, N Kelsey Street and N Shirk Street for determination of growth factor to be applied to summer volumes collected. Based on the assessment of roadway volumes collected in May and June, it was determined that the traffic volumes collected during the summer at the collected locations were higher for daily and AM/PM peak hours. Therefore, a growth factor was not applied to the summer counts collected.

The Existing (2022) peak hour turning movement volumes are shown in **Figure 4**. Traffic volume data sheets and comparison calculations of the spring and summer data are provided in **Appendix C**.

FIGURE 4 EXISTING (2022) PEAK HOUR TURNING MOVEMENT VOLUMES

1

	-	
	534 / 444 13 / 22 **W Riggin Ave**	
35 / 36 521 / 575 7 / 3 **N American St**	4 / 10 12 / 19	

2

1 / 0 561 / 448 55 / 60 **N Plaza Dr**	86 / 36 3 / 4 31 / 15 **Avenue 320**	
1 / 1 5 / 4 0 / 1	409 / 645 33 / 27	

3

182 / 155 378 / 288 39 / 39 **N Plaza Dr**	39 / 80 318 / 237 71 / 59 **W Riggin Ave**	
149 / 189 249 / 329 104 / 74	63 / 75 295 / 514 50 / 63	

4

26 / 11 561 / 499 4 / 3 **N Plaza Dr**	0 / 9 7 / 28 **W Ferguson Ave**	
14 / 27 0 / 1 24 / 48	69 / 22 475 / 594 7 / 17	

5

594 / 649 5 / 1 **N Plaza Dr**	1 / 3 1 / 6 **Private Access Road**	
	565 / 610 18 / 3	

6

41 / 30 448 / 473 111 / 111 **N Plaza Dr**	86 / 99 121 / 137 57 / 75 **W Goshen Ave**	
26 / 70 151 / 211 183 / 211	162 / 131 495 / 494 64 / 57	

7

10 / 70 **N Kelsey St**	1 / 0 1 / 0 **Shannon Pkwy/Riverway**	
	46 / 60	

8

16 / 93 4 / 47 **N Kelsey St**	34 / 55 391 / 205 13 / 1 **W Riggin Ave**	
57 / 65 268 / 360 19 / 2	0 / 18 0 / 7	

9

36 / 87 50 / 113 46 / 107 **N Kelsey St**	89 / 18 241 / 190 57 / 25 **W Goshen Ave**	
66 / 27 229 / 273 21 / 11	8 / 12 101 / 31 34 / 48	

10

3 / 4 2 / 0 **Future N Clancy St**	1 / 0 **Unnamed North Road**	
	7 / 3	

11

	413 / 279 **W Riggin Ave**	
225 / 429		

12

2 / 4 54 / 26 1 / 3 **N Shirk St**	3 / 1 85 / 13 21 / 9 **Avenue 320**	
1 / 1 55 / 94 28 / 26	16 / 13 26 / 57 3 / 10	

13

95 / 60 **N Shirk St**		
1 / 0	51 / 66	

14

5 / 2 95 / 35 7 / 6 **N Shirk St**	3 / 6 339 / 206 79 / 26 **W Riggin Ave**	
4 / 4 215 / 354 71 / 75	100 / 89 43 / 65 32 / 87	

15

24 / 4 221 / 148 48 / 28 **N Shirk St**	52 / 31 20 / 2 123 / 50	
W Sunnyview Ave	**Ferguson Ave**	
5 / 51 2 / 34 22 / 83	57 / 33 113 / 174 55 / 86	

16

104 / 37 236 / 246 2 / 5 **N Shirk St**	6 / 2 25 / 8 190 / 52 **W Doe Ave**	
23 / 106 2 / 9 38 / 194	167 / 64 196 / 173 41 / 83	

17

61 / 30 382 / 411 43 / 58 **N Shirk St**	74 / 26 220 / 142 75 / 43 **W Goshen Ave**	
23 / 57 136 / 265 134 / 167	147 / 64 371 / 215 92 / 74	

18

332 / 578 18 / 40 **N Shirk St**	49 / 33 63 / 30 **W Hurley Ave**	
	580 / 398 31 / 75	

19

	420 / 292 78 / 32 **W Riggin Ave**	
250 / 385 7 / 10 **N Roeben St**	14 / 3 77 / 35	

20

14 / 5 6 / 10 24 / 15 **N Roeben St**	8 / 31 155 / 106 39 / 55 **W Ferguson Ave**	
9 / 15 78 / 158 2 / 3	2 / 1 9 / 11 41 / 55	

21

0 / 1 0 / 1 **N Akers St**	1 / 1 59 / 12 25 / 21 **Avenue 320**	
14 / 62 9 / 21	18 / 21 1 / 0 18 / 45	

22

39 / 43 **N Akers St**	0 / 1 **Future Shannon Pkwy**	
	41 / 67	

23

94 / 10 272 / 40 137 / 10 **N Akers St**	152 / 62 371 / 220 174 / 100 **W Riggin Ave**	
121 / 30 186 / 362 25 / 50	32 / 31 225 / 180 138 / 168	

24

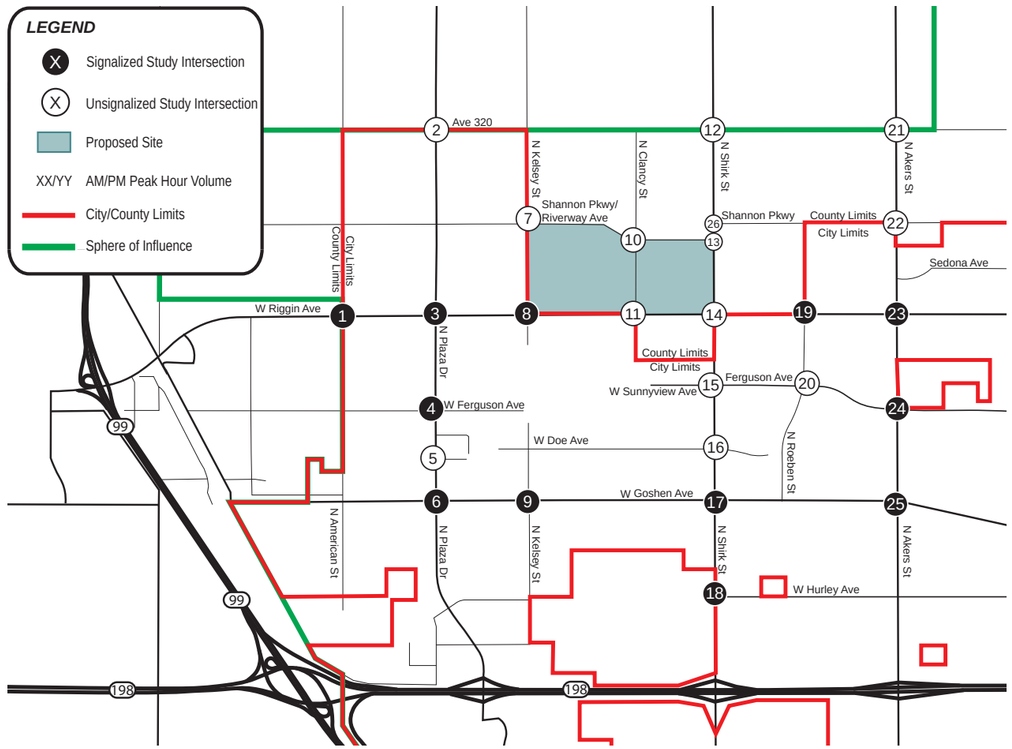
64 / 23 490 / 207 37 / 26 **N Akers St**	45 / 23 148 / 107 226 / 96 **W Ferguson Ave**	
57 / 24 90 / 113 237 / 108	125 / 193 301 / 352 107 / 225	

25

63 / 46 660 / 357 269 / 172 **N Akers St**	110 / 166 179 / 135 150 / 99 **W Goshen Ave**	
33 / 88 168 / 282 37 / 50	199 / 141 418 / 684 145 / 133	

26

95 / 60 **N Shirk St**		
	52 / 66	



3. PROJECT DESCRIPTION

This chapter presents a description of the proposed site uses, access, roadway improvements, expected trip generation, trip distribution, and trip assignment.

PROPOSED USES

Applicant proposes to develop the approximately 284-acre project site, which currently is being used for agricultural purposes consisting of an actively managed almond orchard, established around 2018, with a mixed-use industrial park. Specifically, the proposed project would discontinue the existing agricultural uses, demolish remaining on-site structures that serve the current agricultural uses, and develop a mixed-use industrial park totaling approximately 3,720,149 square feet of light industrial and flex industrial uses along with car/trailer parking areas and related on- and off-site improvements. The proposed project would consist of eight (8) industrial buildings used for warehouse, distribution, and light manufacturing; six (6) flex industrial buildings offering small incubator space for small manufacturing, storage, and limited warehouse space; two drive-thru fast food/quick serve restaurants; a convenience store; a recreational vehicle (RV) and self-storage facility; a gas station; and a car wash. The project site would include sufficient amounts of trailer stalls and car parking stalls to serve the proposed uses in accordance with applicable City requirements. The proposed project would also involve necessary on- and off-site infrastructure and improvements sufficient to serve the proposed uses.

For the purposes of the TIA and in accordance with the applicant's project development goals, construction of the proposed project is anticipated to begin in March 2024 and completed in March 2028, with operations commencing upon the completion of construction of the proposed project[9]. As described above, given its size and nature, it is reasonable to assume the proposed project would be constructed in phases over time. However, because various market, economic and other considerations would ultimately determine how construction phasing would occur in connection with individual specific development proposal(s), this TIA utilizes the following assumptions based on reasonably available information for purposes of a conservative analysis:

- Phase 1, construction assumed to begin in March 2024 and completed in March 2025
    - 1,864,680 SF Light Industrial (Buildings 1 & 2)
- Phase 2, construction assumed to begin in September 2025 and completed in September 2026
    - 830,700 SF Light Industrial (Buildings 3, 4 & 7)
    - 6,920 SF Gas Station/Convenience Market (with 12 vehicle fueling stations)
    - 4,740 SF Fast-food Restaurant (with Drive-through)
    - 4,560 SF Car Wash
- Phase 3, construction assumed to begin in March 2027 and completed in March 2028
    - 779,270 SF Light Industrial (Buildings 5, 6 & 8)
    - 84,480 SF Flex Industrial
    - 144,800 SF Mini-Storage (with RV parking)

The site plan for the proposed project is shown in **Figure 2**.

[9] Because vehicle fuel use becomes more efficient through time in compliance with applicable federal and State laws and regulations, these dates support a conservative evaluation of potential impacts. If the actual dates of construction are delayed, associated effects would be reduced accordingly.

The necessary roadway, access and parking would be included in each of the 3 Phases, sufficient to serve each relevant Phase. While the above-described preliminary construction schedule for the proposed project assumes that Phases 1 through 3 would be built sequentially (i.e., none of the three Phases would overlap), the potential remains for project Phases to be constructed concurrently. Therefore, for the purpose of analyzing the reasonable worst-case scenario and fully disclosing all potential impacts, this TIA evaluates deficiencies that would occur for the buildout of the proposed project. Accordingly, deficiency discussions and recommendations related to each construction Phase would be applicable to an individual specific development proposal taking place within the development area covered by the relevant Phase.

ACCESS

Vehicular access for the proposed project consists of nineteen (19) driveways that would intersect the public streets, detailed below:

- Phase 1
  - N Kelsey Street: five (5) full-access driveways
  - N Clancy Street: four (4) full-access driveways
- Phase 2
  - W Riggin Avenue: one (1) limited-access driveway (Outbound LT Restricted)
  - W Riggin Avenue: one (1) right-in/right-out driveway
  - N Clancy Street: four (4) full-access driveways
  - N Shirk Street: one (1) full-access driveway
- Phase 3
  - W Riggin Avenue: one (1) limited-access driveway (Outbound LT Restricted)
  - N Shirk Street: one (1) right-in/right-out driveway
  - N Shirk Street: one (1) limited-access driveway (Outbound LT Restricted)

The southernmost driveway along N Shirk Street (Driveway 19) would align with the neighboring driveway for the recently approved Costco development (22-071), which is proposed to be signalized as part of their opening day access requirements. All other eighteen (18) driveways are proposed to be unsignalized. An internal network of drive aisles would connect the overall project.

PROPOSED OFF-SITE ROADWAY IMPROVEMENTS

Proposed off-site roadway improvements would be constructed by the proposed project along W Riggin Avenue, N Kelsey Street, N Clancy Street and N Shirk Street. **Appendix D** contains concept drawings of the proposed frontage for the proposed project's Buildout conditions, and also includes concepts of the Phase 1 and Phase 2 interim conditions.

W RIGGIN AVENUE

The proposed project would dedicate the right-of-way adjacent to south side of the project site for a 4-Lane Arterial, which is planned to be constructed by the City/other third parties prior to the completion of the proposed project's Phase 1 construction, as part of the already-approved Riggin Widening & Improvements CIP project. Chapter 5 provides further details related to these CIP improvements. The proposed project would construct sidewalk and parkway along the north side of the street, along the proposed project's frontage. The proposed project would construct and signalize the new intersection at N Clancy Street (Signal Warrant Analysis to follow). One (1) right-in/right-out, stop-controlled driveway and two (2) limited-

access (outbound left-turn restricted), stop-controlled driveways would be constructed along W Riggin Avenue.

The CIP project would provide a cross-section with two travel lanes and a Class II bike lane in each direction, Eastbound and westbound left-turn pockets would be provided at N Clancy Street, and eastbound left-turn pockets at the two (2) limited access driveways. A bus turnout/stop at the northwest corner of N Shirk Street / W Riggin Avenue would also be provided.

The timing of the proposed project's sidewalk, parkway, and access improvements would be the following:

- Phase 1
    - Construct and signalize intersection of N Clancy Street
- Phase 2
    - Construct sidewalk, parkway, and one (1) driveway access between N Kelsey Street and N Clancy Street (approximately half-mile)
    - Construct sidewalk, parkway, and one (1) driveway adjacent to commercial development near N Shirk Street intersection (approximately 600-feet)
- Phase 3
    - Construct sidewalk, parkway, and one (1) driveway between N Clancy Street and commercial development (approximately 1,950-feet)

N KELSEY STREET

The proposed project would dedicate and improve the right-of-way adjacent to the west side of the project site for half street improvements along the eastern half of N Kelsey Street for a 2-Lane Collector. These improvements would complete the street's full curb-to-curb width since the west side of road was recently constructed in 2022. The proposed project would also construct sidewalk and parkway improvements along the east side of street, along the proposed project's frontage. The cross-section would include one travel lane, a Class II bike lane and parking in both directions. A center two-way left-turn lane would also be provided. The intersection and existing traffic signal at W Riggin Avenue would be modified for these improvements. Five (5) full-access, stop-controlled driveways would be constructed along N Kelsey Street.

All roadway, sidewalk, parkway, and access improvements along east side of N Kelsey Street would occur during the construction of Phase 1 (approximately half-mile).

N CLANCY STREET

The proposed project would dedicate and improve the entire street's right-of-way along the project site for a 2-Lane Collector. A cul-de-sac would be constructed at the north terminus, just south of the existing drainage channel and south of the future Shannon Parkway alignment (planned collector). The proposed project would construct sidewalk and parkway improvements along both sides of the street, north of W Riggin Avenue. The cross-section would include one travel lane, a Class II bike lane and parking in both directions. A center two-way left-turn lane would also be provided. The proposed project would construct and signalize the new intersection at W Riggin Avenue (Signal Warrant Analysis to follow). Eight (8) full-access, stop-controlled driveways would be constructed along N Clancy Street.

The timing of the proposed project's roadway, sidewalk, parkway, and access improvements would the following:

- Phase 1
    - Construct sidewalk, parkway, and four (4) driveway access on west side of N Clancy Street (approximately 2,050-feet)
    - Construct west half of the roadway
- Phase 2
    - Construct sidewalk, parkway, and four (4) driveway access on east side of N Clancy Street (approximately 2,050-feet)
    - Construct east half of the roadway

N SHIRK STREET

The proposed project would dedicate and improve the right-of-way adjacent to the east side of project site for half street improvements along the western half of N Shirk Street for a 4-Lane Arterial. The proposed project would also construct sidewalk and parkway improvements on the west side of street, along the proposed project's frontage. These improvements would complete the street's full curb-to-curb width since the east side of road would be constructed as part of the separate Carlton Acres Specific Plan (CASP) phase 1 development. The cross-section would include two travel lanes and a Class II bike lane in each direction, with a center raised median. A 300-foot left-turn pocket into the project site would be provided at W Sedona Avenue, a limited-access (outbound left-turn restricted), stop-controlled driveway. A 200-foot left-turn pocket into the project site would be provided at project driveway 19 (signalized by CASP phase 1 development). One (1) right-in/right-out, stop-controlled driveway would be constructed along N Shirk Street.

The timing of the proposed project's roadway, sidewalk, parkway, and access improvements would the following:

- Phase 2
    - Construct roadway, sidewalk, parkway, and one (1) driveway adjacent to commercial development north of W Riggin Avenue intersection (approximately 900-feet)
- Phase 3
    - Construct roadway, sidewalk, parkway, and two (2) driveways between limits of Phase 2 improvements and north of the proposed project's frontage (approximately 1,200-feet)

TRIP GENERATION

Trip generation estimates are based on the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition*.[10] A trip is defined as a single or one-directional vehicle movement with either the origin or destination at the project site. In other words, a trip can be either "to" or "from" the site and therefore, a single visitor to a site is counted as two. Trips generated by the proposed project are estimated for the AM and PM commuter peak hours between 7-9 AM and 4-6 PM on a typical weekday. Trips generated were based on the average rates for ITE Land Use 130 (Industrial Park) for the warehouse and flex buildings, ITE Land Use 151 (Mini-Warehouse) for the mini-storage/RV parking, ITE Lane Use 934 (Fast-Food Restaurant with Drive-Through) for the fast-food restaurant, Land Use 945 (Convenience Store with Gas Station) for the convenience market, and ITE Land Use 947 (Self-Service Car Wash) for car wash facility. Consistent with the *Highway Capacity Manual (HCM)* and the City of Visalia's *Procedures for Traffic Impact Analysis* (Updated March 2021), a Passenger Car Equivalent (PCE) of 2.0 was applied to the truck volumes to analyze their effects more accurately on roadway capacity and queueing.

Trip reductions were taken in account for internal capture and pass-by trips. With multi-use development, there is potential for interaction among uses within the site. These types of trips are considered internal to the site and are "captured" within the site. Typically, internal capture is derived by the methodology and data set forth in the ITE *Trip Generation Handbook, 3rd Edition*. However, these percentages exceed the 5 percent maximum reduction that is accepted by Caltrans. Therefore, this analysis conservatively assumes an internal capture of 5 percent maximum reduction that is accepted by Caltrans. Additionally, commercial uses like ITE Land Uses 934 and 945 generate pass-by trips. These trips represent vehicles already on the road that stop as they pass by the site on their route to another destination. For purposes of this analysis, pass-by trips enter and exit the project site at the project driveways but are not new/added trips on the external street and roadway network. Pass-By trip reductions are based on information from *ITE Trip Generation Manual, 11th Edition*, which recommend 50 percent AM / 55 percent PM for Land Use 934, and 76 percent AM / 75 percent PM for the Land Use 945. Since the half of the project site east of N Clancy Street is composed of mixed uses, internal capture and pass-by trip reductions are applied to the traffic generated by this side of the proposed project only.

Tables 4 and 5 contain a summary of the proposed project's expected trip generation for the West and East sides of the proposed project site, and broken down by Phases. **Table 6** contains a summary of the proposed project's total expected trip generation, and broken down by Phases. **Appendix E** contains relevant ITE trip generation rate excerpts for passenger vehicles, trucks, pass-by reductions, and internal capture assumptions.

Based on these assumptions, it is estimated that the proposed project's Phase 1 development would generate approximately 7,347 daily PCE trips, with 709 PCE trips (548 inbound / 161 outbound) during the a.m. commuter peak hour and 709 trips (167 inbound / 542 outbound) during the p.m. commuter peak hour. It is estimated that the proposed project's Phase 1 and 2 developments (combined) would generate approximately 17,790 daily PCE trips, with 1,183 PCE trips (870 inbound / 313 outbound) during the a.m. commuter peak hour and 1,162 trips (315 inbound / 847 outbound) during the p.m. commuter peak hour. It is estimated that the proposed project's Buildout (Phase 1, 2 and 3, combined) would generate a total of approximately 21,409 daily PCE trips, with 1,508 PCE trips (1,119 inbound / 389 outbound) during the a.m. commuter peak hour and 1,495 trips (399 inbound / 1,097 outbound) during the p.m. commuter peak hour.

[10] *Trip Generation Manual, 11th Edition*, Institute of Transportation Engineers, 2022.

TABLE 4 PROJECT TRIP GENERATION - WEST

TABLE 4
Trip Generation Summary
WEST OF CLANCEY STREET

Land Use		Land Use as listed in ITE	Units[1]	Trip Rate[2]	Daily Trips	AM Peak-Hour					PM Peak-Hour				
						% of ADT[2]	In:Out Ratio[2]	In	Out	Total	% of ADT[2]	In:Out Ratio[2]	In	Out	Total
					Driveway Trips[3]										
Total Proposed Vehicles															
Phase 1	Land Use 130	Industrial Park	1864.7 ksf	3.37 / ksf	6,284	10%	0.81 : 0.19	514	120	634	10%	0.22 : 0.78	139	495	634
Phase 2	Land Use 130	Industrial Park	317.5 ksf	3.37 / ksf	1,070	10%	0.81 : 0.19	87	21	108	10%	0.22 : 0.78	24	84	108
Total Vehicle Subtotal					**7,354**			**601**	**141**	**742**			**163**	**579**	**742**
Proposed Trucks															
Phase 1	Land Use 130	Industrial Park	1864.7 ksf	0.57 / ksf	1,063	7%	0.45 : 0.55	34	41	75	7%	0.38 : 0.62	28	47	75
Phase 2	Land Use 130	Industrial Park	317.5 ksf	0.57 / ksf	181	7%	0.45 : 0.55	6	7	13	7%	0.38 : 0.62	5	8	13
Truck Subtotal					**1,244**			**40**	**48**	**88**			**33**	**55**	**88**
PHASE 1 GROSS TRIP GENERATION =					6,284			514	120	634			139	495	634
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					7,347			548	161	709			167	542	709
Pass-by Trip Reduction (PCE)								0	0	0			0	0	0
With Internal Capture Trip Reduction (PCE)								0	0	0			0	0	0
PHASE 1 NET TRIP GENERATION =					**7,347**			**548**	**161**	**709**			**167**	**542**	**709**
PHASE 1 & 2 NET TRIP GENERATION =					7,354			601	141	742			163	579	742
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					8,598			641	189	830			196	634	830
With Pass-by Trip Reduction (PCE)								0	0	0			0	0	0
With Internal Capture Trip Reduction (PCE)								0	0	0			0	0	0
PHASE 1 & 2 NET TRIP GENERATION =					**8,598**			**641**	**189**	**830**			**196**	**634**	**830**
BUILDOUT GROSS TRIP GENERATION =					7,354			601	141	742			163	579	742
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					8,598			641	189	830			196	634	830
Pass-by Trip Reduction (PCE)								0	0	0			0	0	0
With Internal Capture Trip Reduction (PCE)								0	0	0			0	0	0
BUILDOUT NET TRIP GENERATION =					**8,598**			**641**	**189**	**830**			**196**	**634**	**830**

Note:
1. ksf = Thousand Square Feet
2. Trip Rates per ITE Trip Generation Manual, 11th Edition; Industrial Park: LUC 130: Industrial Park; C-Store: LUC 945: Convenience Store/Gas Station: Subcategory VFP (9-15); Car Wash: LUC 947: Self-Service Car Wash; Drive-Thru: LUC 934: Fast-Food Restuarant with Drive Through Window
3. Driveway trips are the total number of trips generated by a site.
4. Pass-by trip reductions based on ITE Trip Generation Manual, 11th Edition.

Land Use	AM	PM
Convenience Market with Gasoline Pumps LUC 945	76%	75%
Fast Food Restaurant with Drive-Through Window LUC 934	50%	55%

5. Internal capture trip reduction assumed to be 5% (per Caltrans maximum allowed).

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TABLE 5 PROJECT TRIP GENERATION - EAST

TABLE 5
Trip Generation Summary
EAST OF CLANCEY STREET

Land Use		Land Use as listed in ITE	Units[1]	Trip Rate[2]	Daily Trips	AM Peak-Hour					PM Peak-Hour				
						% of ADT[2]	In:Out Ratio[2]	In	Out	Total	% of ADT[2]	In:Out Ratio[2]	In	Out	Total
Driveway Trips															
Total Proposed Vehicles															
Phase 2	Land Use 130	Industrial Park	513.2 ksf	3.37 / ksf	1,730	10%	0.81 : 0.19	141	34	175	10%	0.22 : 0.78	38	137	175
	Land Use 945	Convenience Store/Gas Station (VFP 9-15))	6.9 ksf	700.43 / ksf	4,848	8%	0.50 : 0.50	196	195	391	8%	0.50 : 0.50	189	188	377
	Land Use 947	Self-Service Car Wash (1)	1.0 Wash Stall	108 / Wash Sta	108	0%	0.00 : 0.00	0	0	0	5%	0.51 : 0.49	3	3	6
	Land Use 934	Fast-Food Restaurant w/ D.T.	4.7 ksf	467.48 / ksf	2,214	10%	0.51 : 0.49	108	103	211	7%	0.52 : 0.48	81	75	156
Phase 3	Land Use 130	Industrial Park	863.8 ksf	3.37 / ksf	2,911	10%	0.81 : 0.19	238	56	294	10%	0.22 : 0.78	65	229	294
	Land Use 151	Mini-Warehouse	144.8 ksf	1.45 / ksf	210	6%	0.59 : 0.39	8	5	13	10%	0.47 : 0.53	10	12	22
Total Vehicle Subtotal					**12,021**			**691**	**393**	**1,084**			**386**	**644**	**1,030**
Proposed Trucks															
Phase 2	Land Use 130	Industrial Park	513.2 ksf	0.57 / ksf	293	7%	0.45 : 0.55	9	12	21	7%	0.38 : 0.62	8	13	21
Phase 3	Land Use 130	Industrial Park	863.8 ksf	0.57 / ksf	492	7%	0.45 : 0.55	16	19	35	7%	0.38 : 0.62	13	22	35
	Land Use 151	Mini-Warehouse	144.8 ksf	0.04 / ksf	6	0%	0.50 : 0.50	0	0	0	0%	0.50 : 0.50	0	0	0
Truck Subtotal			**1377.0**		**791**			**25**	**31**	**56**			**21**	**35**	**56**
PHASE 1 GROSS TRIP GENERATION =					0			0	0	0			0	0	0
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					0			0	0	0			0	0	0
Pass-by Trip Reduction (PCE)								0	0	0			0	0	0
With Internal Capture Trip Reduction (PCE)								0	0	0			0	0	0
PHASE 1 NET TRIP GENERATION =					**0**			**0**	**0**	**0**			**0**	**0**	**0**
PHASE 1 & 2 NET TRIP GENERATION =					8,900			445	332	777			311	403	714
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					9,193			454	344	798			319	416	735
With Pass-by Trip Reduction (PCE)								203	200	403			184	180	365
With Internal Capture Trip Reduction (PCE)								23	17	40			16	21	37
PHASE 1 & 2 NET TRIP GENERATION =					**9,193**			**228**	**127**	**355**			**119**	**215**	**334**
BUILDOUT GROSS TRIP GENERATION =					12,021			691	393	1,084			386	644	1,030
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					12,811			716	424	1,140			407	679	1,086
Pass-by Trip Reduction (PCE)								203	200	403			184	180	365
With Internal Capture Trip Reduction (PCE)								36	21	57			20	34	54
BUILDOUT NET TRIP GENERATION =					**12,811**			**477**	**203**	**680**			**203**	**465**	**667**

Note:
1. ksf = Thousand Square Feet
2. Trip Rates per ITE Trip Generation Manual, 11th Edition; Industrial Park: LUC 130: Industrial Park; C-Store: LUC 945: Convenience Store/Gas Station: Subcategory VFP (9-15); Car Wash: LUC 947: Self-Service Car Wash; Drive-Thru: LUC 934: Fast-Food Restuarant with Drive-Through Window
3. Driveway trips are the total number of trips generated by a site.
4. Pass-by trip reductions based on ITE Trip Generation Manual, 11th Edition.

Land Use	AM	PM
Convenience Market with Gasoline Pumps LUC 945	76%	75%
Fast Food Restaurant with Drive-Through Window LUC 934	50%	55%

5. Internal capture trip reduction assumed to be 5% (per Caltrans maximum allowed).

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TABLE 6 PROJECT TRIP GENERATION - TOTAL

TABLE 6
Trip Generation Summary
Total Project

Land Use		Land Use as listed in ITE	Units[1]	Trip Rate[2]	Daily Trips	AM Peak-Hour % of ADT[2]	AM Peak-Hour In:Out Ratio[2]	AM In	AM Out	AM Total	PM Peak-Hour % of ADT[2]	PM Peak-Hour In:Out Ratio[2]	PM In	PM Out	PM Total
Driveway Trips															
Total Proposed Vehicles															
Phase 1	Land Use 130	Industrial Park	1864.7 ksf	3.37 / ksf	6,284	10%	0.81 : 0.19	514	120	634	10%	0.22 : 0.78	139	495	634
Phase 2	Land Use 130	Industrial Park	830.7 ksf	3.37 / ksf	2,799	10%	0.81 : 0.19	229	53	282	10%	0.22 : 0.78	62	220	282
	Land Use 945	Convenience Store/Gas Station (VFP 9-15))	6.9 ksf	700.43 / ksf	4,848	8%	0.50 : 0.50	196	195	391	8%	0.50 : 0.50	189	188	377
	Land Use 947	Self-Service Car Wash (1)	1.0 Wash Stall	108 / Wash Stal	108	0%	0.00 : 0.00	0	0	0	5%	0.51 : 0.49	3	3	6
	Land Use 934	Fast-Food Restaurant w/ D.T.	4.7 ksf	467.48 / ksf	2,214	10%	0.51 : 0.49	108	103	211	7%	0.52 : 0.48	81	75	156
Phase 3	Land Use 130	Industrial Park	863.8 ksf	3.37 / ksf	2,911	10%	0.81 : 0.19	238	56	294	10%	0.22 : 0.78	65	229	294
	Land Use 151	Mini-Warehouse	144.8 ksf	1.45 / ksf	210	6%	0.59 : 0.39	8	5	13	10%	0.47 : 0.53	10	12	22
Total Vehicle Subtotal					**19,375**			**1,293**	**532**	**1,825**			**549**	**1,222**	**1,771**
Proposed Trucks															
Phase 1	Land Use 130	Industrial Park	1864.7 ksf	0.57 / ksf	1,063	7%	0.45 : 0.55	34	41	75	7%	0.38 : 0.62	28	47	75
Phase 2	Land Use 130	Industrial Park	830.7 ksf	0.57 / ksf	473	7%	0.45 : 0.55	15	18	33	7%	0.38 : 0.62	13	20	33
Phase 3	Land Use 130	Industrial Park	863.8 ksf	0.57 / ksf	492	7%	0.45 : 0.55	16	19	35	7%	0.38 : 0.62	13	22	35
	Land Use 151	Mini-Warehouse	144.8 ksf	0.04 / ksf	6	0%	0.50 : 0.50	0	0	0	0%	0.50 : 0.50	0	0	0
Truck Subtotal			**3559.1**		**2,034**			**65**	**78**	**143**			**54**	**89**	**143**
PHASE 1 GROSS TRIP GENERATION =					6,284			514	120	634			139	495	634
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					7,347			548	161	709			167	542	709
Pass-by Trip Reduction (PCE)								0	0	0			0	0	0
With Internal Capture Trip Reduction (PCE)								0	0	0			0	0	0
PHASE 1 NET TRIP GENERATION =					**7,347**			**548**	**161**	**709**			**167**	**542**	**709**
PHASE 1 & 2 NET TRIP GENERATION =					16,254			1,047	471	1,518			474	981	1,455
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					17,790			1,096	530	1,626			515	1,048	1,563
With Pass-by Trip Reduction (PCE)								203	200	403			184	180	365
With Internal Capture Trip Reduction (PCE)								23	17	40			16	21	37
PHASE 1 & 2 NET TRIP GENERATION =					**17,790**			**870**	**313**	**1,183**			**315**	**847**	**1,162**
BUILDOUT GROSS TRIP GENERATION =					19,375			1,293	532	1,825			549	1,222	1,771
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					21,409			1,358	610	1,968			603	1,311	1,914
Pass-by Trip Reduction (PCE)								203	200	403			184	180	365
With Internal Capture Trip Reduction (PCE)								36	21	57			20	34	54
BUILDOUT NET TRIP GENERATION =					**21,409**			**1,119**	**389**	**1,508**			**399**	**1,097**	**1,495**

Note:
1. ksf = Thousand Square Feet
2. Trip Rates per ITE Trip Generation Manual, 11th Edition; Industrial Park: LUC 130: Industrial Park; C-Store: LUC 945: Convenience Store/Gas Station: Subcategory VFP (9-15); Car Wash: LUC 947: Self-Service Car Wash; Drive-Thru: LUC 934: Fast-Food Restuarant with Drive-Through Window
3. Driveway trips are the total number of trips generated by a site.
4. Pass-by trip reductions based on ITE Trip Generation Manual, 11th Edition.

Land Use	AM	PM
Convenience Market with Gasoline Pumps LUC 945	76%	75%
Fast Food Restaurant with Drive-Through Window LUC 934	50%	55%

5. Internal capture trip reduction assumed to be 5% (per Caltrans maximum allowed).

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PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The proposed project's trip distribution was developed using select zone model runs from the TCAG Regional Travel Demand Forecast Model. The TCAG model compiles a wide variety of data and forecasts future transportation demands. The model-based distribution was refined based on the existing freeway access, roadway configurations, and expected travel patterns from the most populated surrounding communities.

Figures 5 and 6 show the trip distribution for the Phase 1 (2025) Opening Year for the West and East sides of the project site, respectively, based on the driveways and roadway assumed to be constructed by the proposed project at that time. **Figures 7 and 8** show the trip distribution for the Phase 2 (2026) Opening Year for the West and East sides of the project site, respectively, based on the driveways and roadway assumed to be constructed by the proposed project at that time. **Figures 9 and 10** show the trip distribution for the proposed project's Buildout (2028) for the West and East sides of the project site, respectively.

Based on the assumed trip distribution, the volumes generated by the proposed project were assigned to the street network. **Figures 11, 12 and 13** presents the Phase 1 (2025) Opening Year trip assignment for the West side, East side, and Total project site, respectively. **Figures 14, 15 and 16** presents the Phase 2 (2026) Opening Year trip assignment for the West side, East side, and Total project site, respectively. **Figures 17, 18 and 19** presents the proposed project's Buildout (2028) trip assignment for the West side, East side, and Total project site, respectively.

Appendix F contains the TCAG Model Plots and distribution calculations, and the resulting trip distribution/assignment assumption at the proposed project's access driveways.

FIGURE 5 PHASE 1 PROJECT TRIP DISTRIBUTION - WEST

1
(10%) (2%) W Riggin Ave
10% N American St
2%

2
5% N Plaza Dr
(5%) Avenue 320

3
N Plaza Dr
(12%) (17%) W Riggin Ave
12%
17%

4
(17% N Plaza Dr
W Ferguson Ave
17%

5
(17% N Plaza Dr
Driveway
Private Access Road
17%

6
(1%) (15% (1%) N Plaza Dr
1% W Goshen Ave
1%
15%

7
9% N Kelsey St
5% Shannon Pkwy/Riverway
2%
(2%) (9%) (5%)

8
(15% (1%) (14% N Kelsey St
14% (14%) (1%) W Riggin Ave
15% 14%
1% 1%

9
(2%) N Kelsey St
(1%) W Goshen Ave
(1%)
1% 2% 1%

10
Future N Clancy St
5% Unnamed North Road
(5%)

11
(15% (1%) (38% Future N Clancy St
38% 13% W Riggin Ave
15% (13%) (1%)
1% 1%

12
N Shirk St
2% 3% Avenue 320
(2%)
(3%)

13
3% N Shirk St
Shannon Pkwy
(5%)
5% (3%)

14
3% (5% N Shirk St
18% W Riggin Ave
(3%) (18%) (30%)
30% 5%

15
(29% (6% N Shirk St
6% W Sunnyview Ave Ferguson Ave
29%

16
(2% (27% N Shirk St
W Doe Ave
2%
27%

17
(1% (24% (2% N Shirk St
2% W Goshen Ave
1%
24%

18
(24% N Shirk St
W Hurley Ave
24%

19
17% W Riggin Ave
(17%) (1%) N Roeben St
1%

20
N Roeben St
5% W Ferguson Ave
(5%) (1%)
1%

21
N Akers St
4% Avenue 320
(4%) (1%)
1%

22
(1% N Akers St
1% 2% Future Shannon Pkwy
N Akers St
(2%)

23
2% N Akers St
13% W Riggin Ave
(2%) (13%) (2%)
2%

24
(2% N Akers St
2% W Ferguson Ave
(2%) (3%)
3% 2%

25
(2%) (3% N Akers St
3% 2% W Goshen Ave
(2%)
2%

26
3% N Shirk St
Shannon Pkwy
(3%)

LEGEND
- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

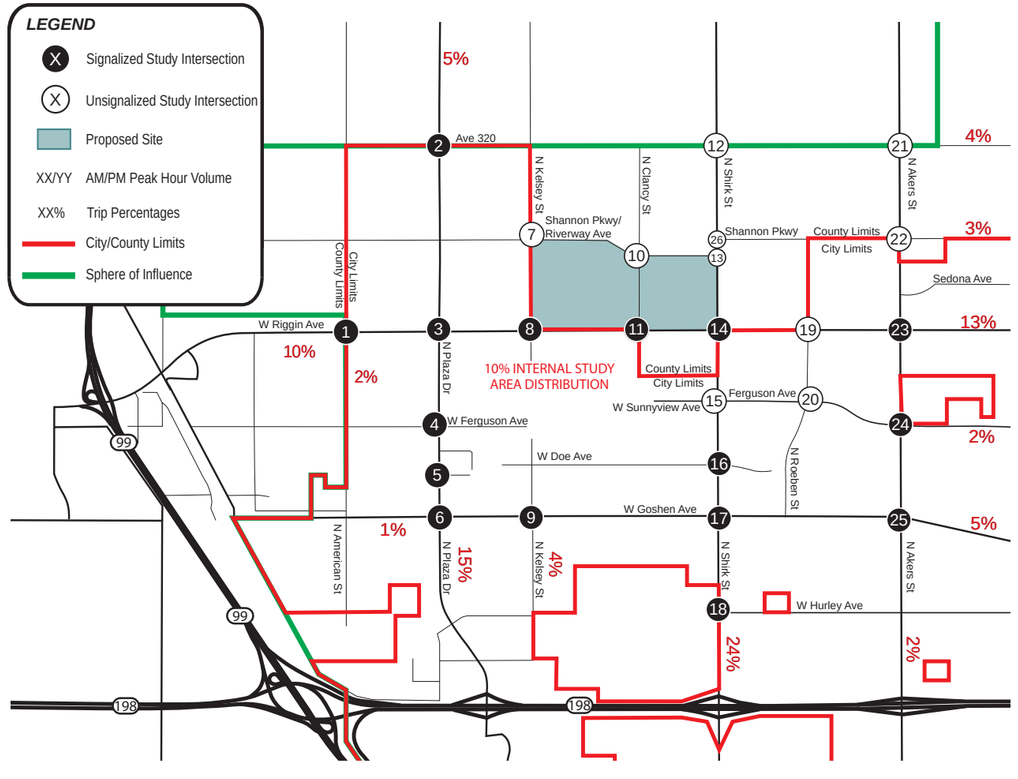


FIGURE 6 PHASE 1 PROJECT TRIP DISTRIBUTION - EAST

1	W Riggin Ave / N American St	2	N Plaza Dr / Avenue 320	3	N Plaza Dr / W Riggin Ave	4	N Plaza Dr / W Ferguson Ave
5	N Plaza Dr / Driveway / Private Access Road	6	N Plaza Dr / W Goshen Ave	7	N Kelsey St / Shannon Pkwy/Riverway	8	N Kelsey St / W Riggin Ave
9	N Kelsey St / W Goshen Ave	10	Future N Clancy St / Unnamed North Road	11	Future N Clancy St / W Riggin Ave	12	N Shirk St / Avenue 320
13	N Shirk St / Shannon Pkwy	14	N Shirk St / W Riggin Ave	15	N Shirk St / W Sunnyview Ave / Ferguson Ave	16	N Shirk St / W Doe Ave
17	N Shirk St / W Goshen Ave	18	N Shirk St / W Hurley Ave	19	W Riggin Ave / N Roeben St	20	N Roeben St / W Ferguson Ave
21	N Akers St / Avenue 320	22	N Akers St / Future Shannon Pkwy	23	N Akers St / W Riggin Ave		
24	N Akers St / W Ferguson Ave	25	N Akers St / W Goshen Ave	26	N Shirk St / Shannon Pkwy		

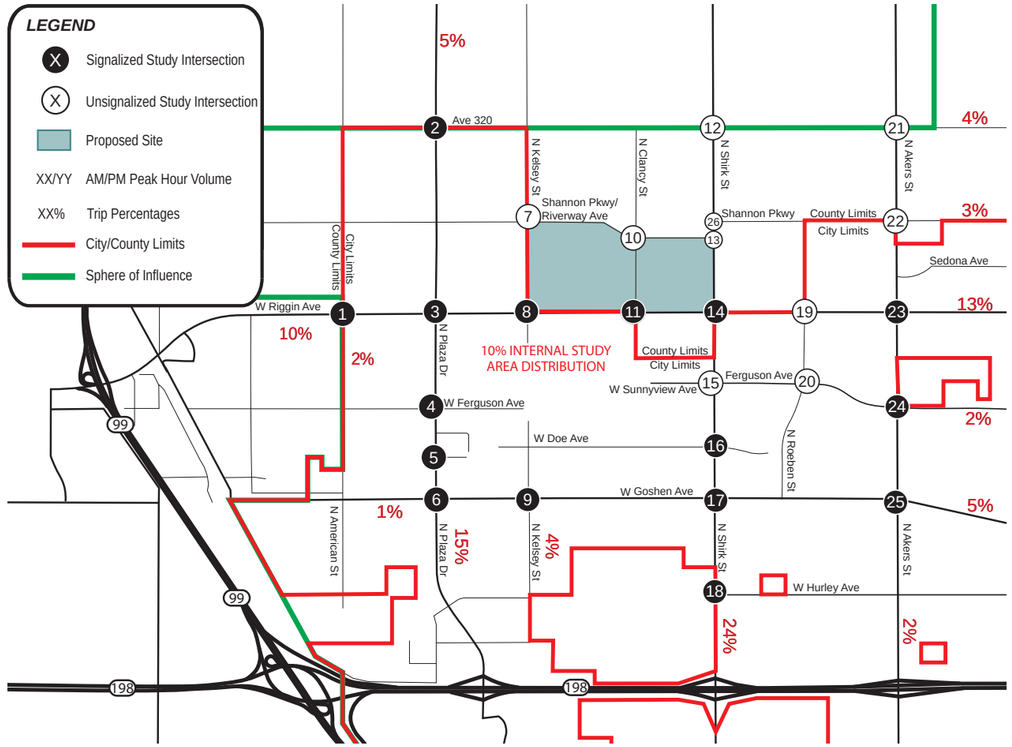


FIGURE 7 PHASE 2 PROJECT TRIP DISTRIBUTION - WEST

1	**2**	**3**	**4**
(10%) (2%) W Riggin Ave 10% N American St 2%	5% N Plaza Dr (5%) Avenue 320	N Plaza Dr (12%) (17%) W Riggin Ave 12% 17%	(17% N Plaza Dr W Ferguson Ave 17%
5	**6**	**7**	**8**
(17% N Plaza Dr Driveway Private Access Road 17%	(1%) (15% (1% N Plaza Dr 1% 1% W Goshen Ave 15%	9% N Kelsey St 3% Shannon Pkwy/Riverway 2% (2%) (9%) (3%)	(15% (1% (14% N Kelsey St 9% (14%) (1% W Riggin Ave 15% 14% 1% 1%
9	**10**	**11**	**12**
(2%) N Kelsey St (1%) W Goshen Ave (1%) 1% 2% 1%	Future N Clancy St 3% Unnamed North Road (3%)	(10% (1% (27% Future N Clancy St 27% 13% W Riggin Ave 10% (13%) (1%) 1% 1%	N Shirk St 2% 3% Avenue 320 (2%) (3%)
13	**14**	**15**	**16**
3% N Shirk St Shannon Pkwy (3%) 3% (3%)	(13% N Shirk St 18% W Riggin Ave (18%) (22%) 22% 13%	(29% (6% N Shirk St 6% W Sunnyview Ave Ferguson Ave 29%	(2% (27% N Shirk St W Doe Ave 2% 27%
17	**18**	**19**	**20**
(1% (24% (2% N Shirk St 2% W Goshen Ave 1% 24%	(24% N Shirk St W Hurley Ave 24%	17% W Riggin Ave (17%) (1%) N Roeben St 1%	N Roeben St 5% W Ferguson Ave (5%) (1%) 1%

21	**22**	**23**	
N Akers St 4% Avenue 320 (4%) (1%) 1%	(1% N Akers St 1% 2% Future Shannon Pkwy N Akers St (2%)	2% N Akers St 13% W Riggin Ave (2%) (13%) (2%) 2%	
24	**25**	**26**	
(2% N Akers St 2% W Ferguson Ave (2%) (3%) 3% 2%	(2%) (3% N Akers St 3% 2% W Goshen Ave (2%) 2%	3% N Shirk St Shannon Pkwy (3%)	

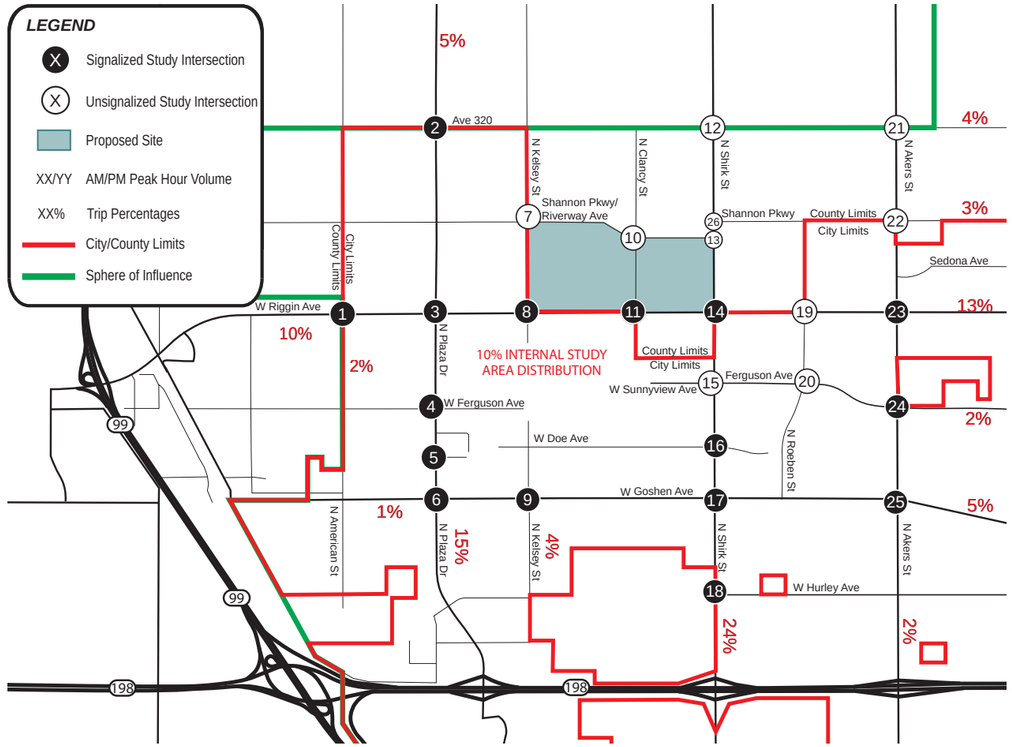


FIGURE 8 PHASE 2 PROJECT TRIP DISTRIBUTION - EAST

1
- (10%) W Riggin Ave
- (2%) W Riggin Ave
- 10% N American St
- 2%

2
- 2% N Plaza Dr
- 3% N Plaza Dr
- (3%) Avenue 320
- (2%)

3
- 2% N Plaza Dr
- (2%) W Riggin Ave
- (12%) W Riggin Ave
- (17%) W Riggin Ave
- 12%
- 17%

4
- (17% N Plaza Dr
- W Ferguson Ave
- 17%

5
- (17% N Plaza Dr
- Driveway
- Private Access Road
- 17%

6
- (1%) N Plaza Dr
- (15% N Plaza Dr
- (1%) N Plaza Dr
- 1% W Goshen Ave
- 1%
- 15%

7
- 1% N Kelsey St
- 1% N Kelsey St
- (1%) Shannon Pkwy/Riverway
- (1%) Shannon Pkwy/Riverway
- 1%
- 1%
- (1%)
- (1%)

8
- 2% N Kelsey St
- (2%) W Riggin Ave
- (31%) W Riggin Ave
- (2%) W Riggin Ave
- 31%
- 2%

9
- (2%) N Kelsey St
- (1%) W Goshen Ave
- (1%)
- 1% 2% 1% W Goshen Ave

10
- Future N Clancy St
- (2%) Unnamed North Road
- 2%

11
- (30% Future N Clancy St
- (2% Future N Clancy St
- (23% Future N Clancy St
- 23% W Riggin Ave
- (5%) W Riggin Ave
- 30%
- 5%
- 2%

12
- N Shirk St
- 5% Avenue 320
- 3%
- (3%) (5%)

13
- 8% N Shirk St
- Shannon Pkwy
- 2%
- (2%) (8%)

14
- (2% N Shirk St
- (22% N Shirk St
- (8% N Shirk St
- 3% W Riggin Ave
- 15% W Riggin Ave
- 5% (10%) (13%)
- 18% 17%

15
- (29% N Shirk St
- (6% N Shirk St
- W Sunnyview Ave
- 6% Ferguson Ave
- 29%

16
- (2% N Shirk St
- (27% N Shirk St
- W Doe Ave
- 2%
- 27%

17
- (1% N Shirk St
- (24% N Shirk St
- (2% N Shirk St
- 2% W Goshen Ave
- 1%
- 24%

18
- (24% N Shirk St
- W Hurley Ave
- 24%

19
- 17% W Riggin Ave
- (17%) N Roeben St
- (1%) N Roeben St
- 1%

20
- N Roeben St
- 5% W Ferguson Ave
- (5%) (1%)
- 1%

21
- N Akers St
- 4% Avenue 320
- (4%) (1%)
- 1%

22
- (1% N Akers St
- 1% Future Shannon Pkwy
- 2% Future Shannon Pkwy
- N Akers St
- (2%)

23
- 2% N Akers St
- 13% W Riggin Ave
- (2%) (13%) (2%)
- 2%

24
- (2% N Akers St
- 2% W Ferguson Ave
- (2%) (3%)
- 3% 2%

25
- (2% N Akers St
- (3% N Akers St
- 3% W Goshen Ave
- 2% W Goshen Ave
- (2%)
- 2%

26
- 8% N Shirk St
- Shannon Pkwy
- (8%)

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

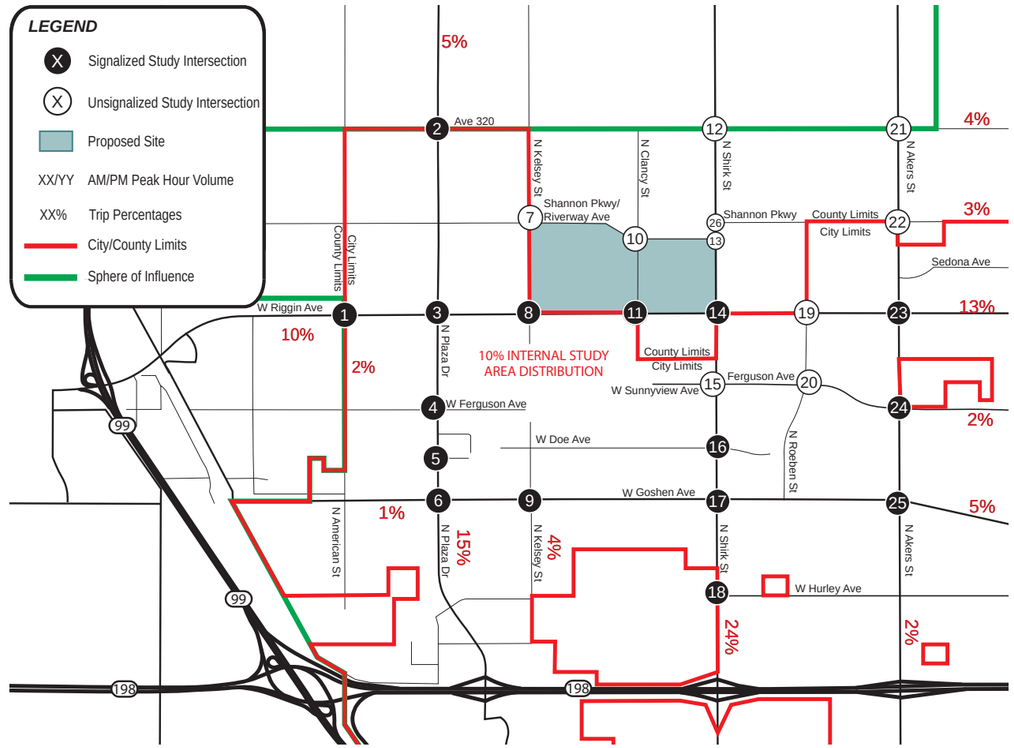


FIGURE 9 PHASE 3 (BUILDOUT) PROJECT TRIP DISTRIBUTION - WEST

1

W Riggin Ave	
(10%) ⇦ (2%) ⇨	
N American St	
10% ⇩	2% ⇗

2

N Plaza Dr	Avenue 320
5% ⇙	(5%) ⇗

3

N Plaza Dr	W Riggin Ave
	(12%) ⇦ (17%) ⇨
12% ⇨	17% ⇗

4

N Plaza Dr	W Ferguson Ave
(17% ⇩	
	17% ⇧

5

Driveway	Private Access Road
(17% ⇩ N Plaza Dr	
	17% ⇧

6

N Plaza Dr	W Goshen Ave
(1% ⇖ (15% ⇩ (1% ⇗	1% ⇗
1% ⇨	15% ⇧

7

N Kelsey St	Shannon Pkwy/Riverway
9% ⇩	3% ⇖
2% ⇘	(2%) ⇗ (9%) ⇑ (3%) ⇗

8

N Kelsey St	W Riggin Ave
(15% ⇖ (1% ⇩ (14% ⇗	9% ⇗ (14%) ⇦ (1%) ⇙
15% ⇦ 14% ⇨	1% ⇧ 1% ⇖

9

N Kelsey St	W Goshen Ave
(2%) ⇩	(1%) ⇙
(1%) ⇘	1% ⇗ 2% ⇧ 1% ⇗

10

Future N Clancy St	Unnamed North Road
	3% ⇦
(3%) ⇨	

11

Future N Clancy St	W Riggin Ave
(10% ⇖ (1% ⇩ (27% ⇗	27% ⇗ 13% ⇦
10% ⇗ (13%) ⇨ (1%) ⇘	1% ⇗ 1% ⇧

12

N Shirk St	Avenue 320
	2% ⇦ 3% ⇙
(2%) ⇨	(3%) ⇗

13

N Shirk St	Shannon Pkwy
3% ⇩	
(3%) ⇘	3% ⇗ (3%) ⇧

14

N Shirk St	W Riggin Ave
(13% ⇩	18% ⇦
(18%) ⇨ (22%) ⇘	22% ⇗ 13% ⇧

15

N Shirk St	Ferguson Ave
(29% ⇩ (6% ⇗ W Sunnyview Ave	6% ⇗
	29% ⇧

16

N Shirk St	W Doe Ave
(2% ⇖ (27% ⇩	
2% ⇗	27% ⇧

17

N Shirk St	W Goshen Ave
(1% ⇦ (24% ⇩ (2% ⇙	2% ⇗
1% ⇘	24% ⇧

18

N Shirk St	W Hurley Ave
(24% ⇩	
	24% ⇧

19

N Roeben St	W Riggin Ave
	17% ⇦
(17%) ⇨ (1%) ⇘	1% ⇧

20

N Roeben St	W Ferguson Ave
	5% ⇦
(5%) ⇨ (1%) ⇘	1% ⇧

21

N Akers St	Avenue 320
	4% ⇦
(4%) ⇨ (1%) ⇘	1% ⇧

22

N Akers St	Future Shannon Pkwy
(1%) ⇙	1% ⇗ 2% ⇙
N Akers St	(2%) ⇗

23

N Akers St	W Riggin Ave
2% ⇖	13% ⇦
(2%) ⇗ (13%) ⇨ (2%) ⇘	2% ⇧

24

N Akers St	W Ferguson Ave
(2%) ⇩	2% ⇦
(2%) ⇘ (3%) ⇙	3% ⇗ 2% ⇧

25

N Akers St	W Goshen Ave
(2%) ⇩ (2%) ⇙	2% ⇗ 3% ⇦
(3%) ⇨	2% ⇧

26

N Shirk St	Shannon Pkwy
3% ⇩	
	(3%) ⇧

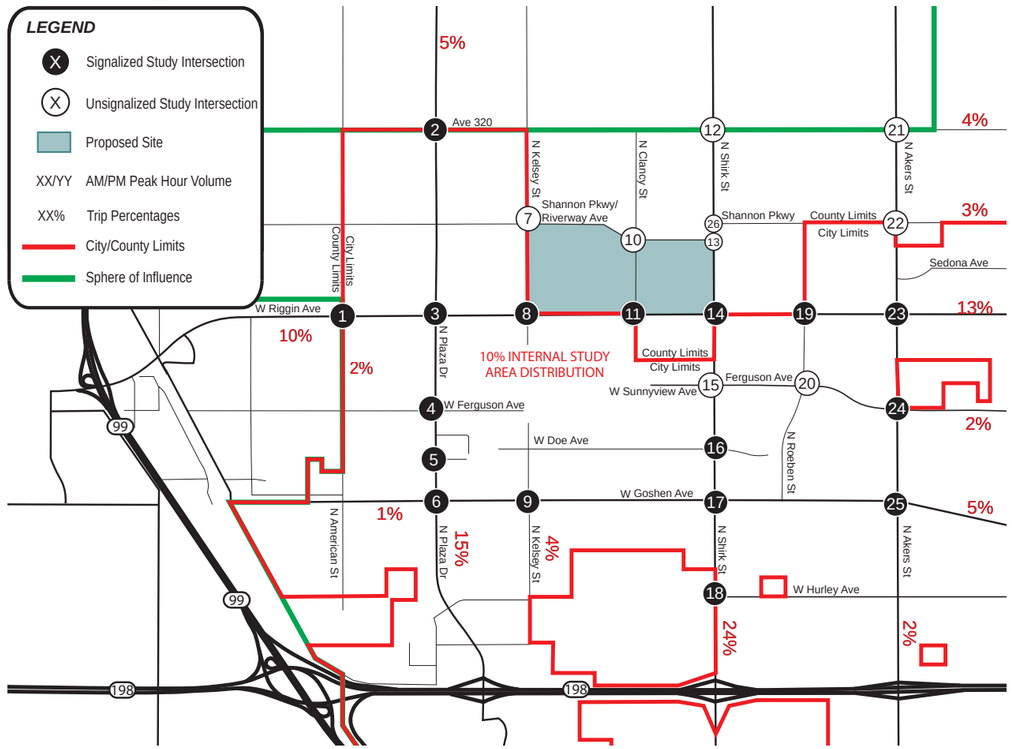


FIGURE 10 PHASE 3 (BUILDOUT) PROJECT TRIP DISTRIBUTION - EAST

1

W Riggin Ave: (10%) ⇦ (2%) ⇨
N American St: 10% ⇩ ⇦ | 2% ⇨

2

N Plaza Dr: 2% ⇩ 3% ⇗
Avenue 320: (3%) ⇦ | (2%) ⇧

3

N Plaza Dr: 2% ⇗
W Riggin Ave: (2%) ⇦ (12%) ⇦ (17%) ⇖
12% ⇩ | 17% ⇗

4

N Plaza Dr: (17% ⇩
W Ferguson Ave: 17% ⇧

5

N Plaza Dr: (17% ⇩
Driveway | Private Access Road: 17% ⇧

6

N Plaza Dr: (1%) ⇖ (15%) ⇩ (1%) ⇗
W Goshen Ave: 1% ⇗
1% ⇨ | 15% ⇧

7

N Kelsey St: 1% ⇩ 1% ⇗
Shannon Pkwy/Riverway: (1%) ⇦ (1%) ⇖
1% ⇩ 1% ⇗ | (1%) ⇘ (1%) ⇧

8

N Kelsey St: 2% ⇗
W Riggin Ave: (2%) ⇗ (31%) ⇦ (2%) ⇖
31% ⇨ | 2% ⇗

9

N Kelsey St: (2%) ⇩
W Goshen Ave: (1%) ⇙
(1%) ⇙ | 1% ⇖ 2% ⇧ 1% ⇗

10

Future N Clancy St
Unnamed North Road: (2%) ⇦
2% ⇨

11

Future N Clancy St: (26% ⇖ (1% ⇩ (16% ⇖
W Riggin Ave: 13% ⇗ (9%) ⇦ (1%) ⇖
26% ⇗ 9% ⇨ | 1% ⇧ 1% ⇗

12

N Shirk St
Avenue 320: 5% ⇙
3% ⇙ | (3%) ⇖ (5%) ⇗

13

N Shirk St: 8% ⇩
Shannon Pkwy
2% ⇙ | (2%) ⇗ (8%) ⇧

14

N Shirk St: (2%) ⇖ (25% ⇩ (12% ⇖
W Riggin Ave: 9% ⇦ 9% ⇦
5% ⇗ (6%) ⇨ (10%) ⇘ | 14% ⇗ 21% ⇧

15

N Shirk St: (29% ⇩ (6%) ⇖
W Sunnyview Ave
Ferguson Ave: 6% ⇗
29% ⇧

16

N Shirk St: (2% ⇖ (27% ⇩
W Doe Ave
2% ⇗ | 27% ⇧

17

N Shirk St: (1% ⇖ (24% ⇩ (2% ⇙
W Goshen Ave: 2% ⇗
1% ⇗ | 24% ⇧

18

N Shirk St: (24% ⇩
W Hurley Ave
24% ⇧

19

W Riggin Ave: 17% ⇦
N Roeben St: (17%) ⇨ (1%) ⇘ | 1% ⇗

20

N Roeben St
W Ferguson Ave: 5% ⇦
(5%) ⇨ (1%) ⇘ | 1% ⇖

21

N Akers St
Avenue 320: 4% ⇦
(4%) ⇨ (1%) ⇘ | 1% ⇖

22

N Akers St: (1%) ⇗
Future Shannon Pkwy: 1% ⇗ 2% ⇙
N Akers St | (2%) ⇧

23

N Akers St: 2% ⇖
W Riggin Ave: 13% ⇦
(2%) ⇗ (13%) ⇨ (2%) ⇘ | 2% ⇧

24

N Akers St: (2%) ⇩
W Ferguson Ave: 2% ⇦
(2%) ⇨ (3%) ⇘ | 3% ⇖ 2% ⇧

25

N Akers St: (2%) ⇩ (3%) ⇘
W Goshen Ave: 3% ⇗ 2% ⇦
(2%) ⇨ | 2% ⇧

26

N Shirk St: 8% ⇩
Shannon Pkwy
(8%) ⇧

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

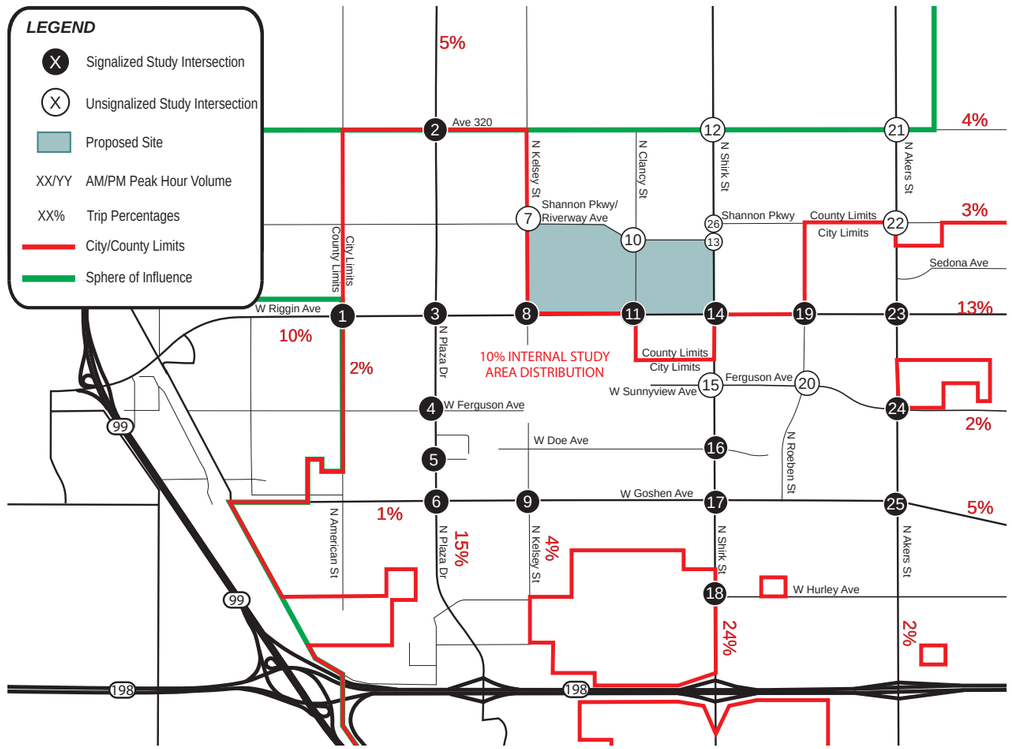


FIGURE 11 PHASE 1 PROJECT TRIP ASSIGNMENT - WEST

1

		16 / 54 3 / 11 W Riggin Ave
55 / 17 N American St		11 / 3

2

	27 / 8 N Plaza Dr	8 / 27 Avenue 320

3

N Plaza Dr		19 / 65 27 / 92 W Riggin Ave
66 / 20		93 / 28

4

	27 / 92 N Plaza Dr	W Ferguson Ave
		93 / 28

5

27 / 92 N Plaza Dr		Private Access Road
Driveway		93 / 28

6

2 / 5 24 / 81 2 / 5 N Plaza Dr		5 / 2 W Goshen Ave
5 / 2		82 / 25

7

49 / 15 N Kelsey St		27 / 8 Shannon Pkwy/Riverway
11 / 3		3 / 11 14 / 49 8 / 27

8

24 / 81 2 / 5 23 / 76 N Kelsey St		77 / 23 23 / 76 2 / 5 W Riggin Ave
82 / 25 77 / 23		5 / 2 5 / 2

9

3 / 11 N Kelsey St		2 / 5 W Goshen Ave
2 / 5		5 / 2 11 / 3 5 / 2

10

Future N Clancy St		27 / 8 Unnamed North Road
8 / 27		

11

24 / 81 2 / 5 61 / 206 Future N Clancy St		208 / 63 71 / 22 W Riggin Ave
82 / 25 21 / 70 2 / 5		5 / 2 5 / 2

12

N Shirk St		11 / 3 16 / 5 Avenue 320
3 / 11		5 / 16

13

16 / 5 N Shirk St		Shannon Pkwy
8 / 27		27 / 8 5 / 16

14

16 / 5 8 / 27 N Shirk St		99 / 30 W Riggin Ave
5 / 16 29 / 98 48 / 163		164 / 50 27 / 8

15

47 / 157 10 / 33 N Shirk St		33 / 10 Ferguson Ave
W Sunnyview Ave		159 / 48

16

3 / 11 43 / 146 N Shirk St		W Doe Ave
11 / 3		148 / 45

17

2 / 5 39 / 130 3 / 11 N Shirk St		11 / 3 W Goshen Ave
5 / 2		132 / 40

18

39 / 130 N Shirk St		W Hurley Ave
		132 / 40

19

		93 / 28 W Riggin Ave
27 / 92 2 / 5 N Roeben St		5 / 2

20

N Roeben St		27 / 8 W Ferguson Ave
8 / 27 2 / 5		5 / 2

21

	N Akers St	22 / 7 Avenue 320
6 / 22 2 / 5		5 / 2

22

	2 / 5 N Akers St	5 / 2 11 / 3 Future Shannon Pkwy
		3 / 11

23

	11 / 3 N Akers St	71 / 22 W Riggin Ave
3 / 11 21 / 70 3 / 11		11 / 3

24

	3 / 11 N Akers St	11 / 3 W Ferguson Ave
3 / 11 5 / 16		16 / 5 11 / 3

25

	3 / 11 5 / 16 N Akers St	16 / 5 11 / 3 W Goshen Ave
3 / 11		11 / 3

26

	16 / 5 N Shirk St	Shannon Pkwy
		5 / 16

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

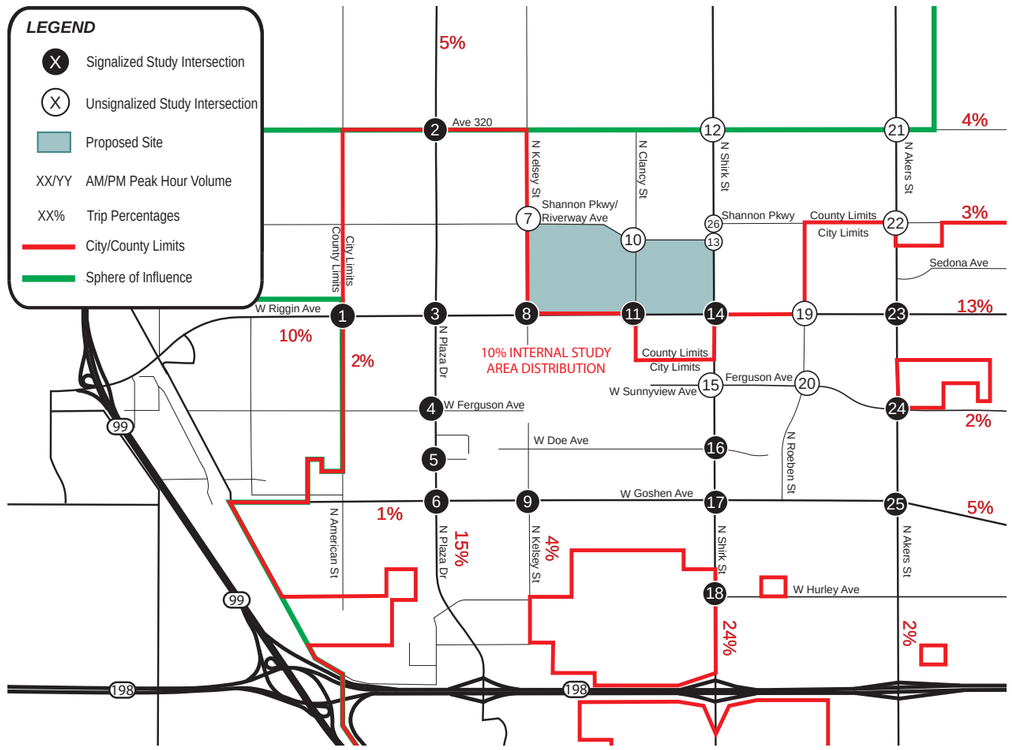


FIGURE 12 PHASE 1 PROJECT TRIP ASSIGNMENT - EAST

1	N American St	W Riggin Ave	2	N Plaza Dr	Avenue 320	3	N Plaza Dr	W Riggin Ave	4	N Plaza Dr	W Ferguson Ave
5	N Plaza Dr	Driveway / Private Access Road	6	N Plaza Dr	W Goshen Ave	7	N Kelsey St	Shannon Pkwy/Riverway	8	N Kelsey St	W Riggin Ave
9	N Kelsey St	W Goshen Ave	10	Future N Clancy St	Unnamed North Road	11	Future N Clancy St	W Riggin Ave	12	N Shirk St	Avenue 320
13	N Shirk St	Shannon Pkwy	14	N Shirk St	W Riggin Ave	15	N Shirk St	W Sunnyview Ave / Ferguson Ave	16	N Shirk St	W Doe Ave
17	N Shirk St	W Goshen Ave	18	N Shirk St	W Hurley Ave	19	W Riggin Ave / N Roeben St		20	N Roeben St	W Ferguson Ave
21	N Akers St	Avenue 320	22	N Akers St	Future Shannon Pkwy	23	N Akers St	W Riggin Ave			
24	N Akers St	W Ferguson Ave	25	N Akers St	W Goshen Ave	26	N Shirk St	Shannon Pkwy			

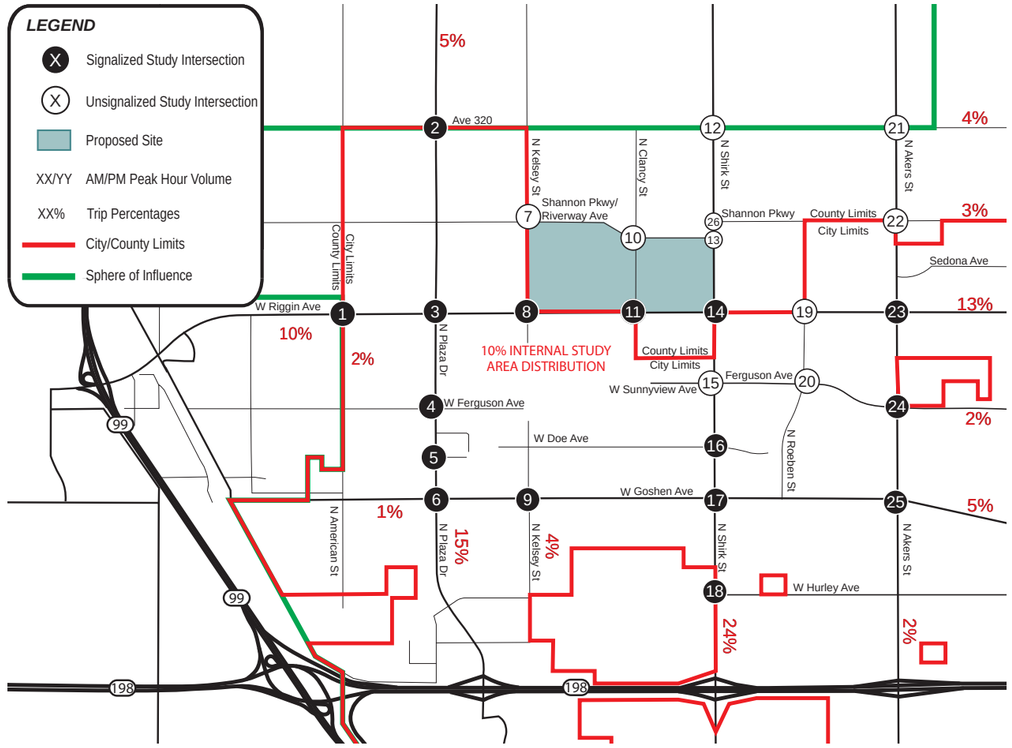


FIGURE 13 PHASE 1 PROJECT TRIP ASSIGNMENT - TOTAL

1

	⇦ 16 / 54 ⇖ 3 / 11 W Riggin Ave
55 / 17 ⇦ N American St	⇗ 11 / 3

2

27 / 8 ⇙ N Plaza Dr	⇗ 8 / 27 Avenue 320

3

N Plaza Dr	⇦ 19 / 65 ⇖ 27 / 92 W Riggin Ave
66 / 20 ⇨	⇗ 93 / 28

4

27 / 92 ⇩ N Plaza Dr	W Ferguson Ave
	⇧ 93 / 28

5

27 / 92 ⇩ N Plaza Dr	
Driveway	Private Access Road
	⇧ 93 / 28

6

2 / 5 ⇙ 24 / 81 ⇩ 2 / 5 ⇙ N Plaza Dr	⇗ 5 / 2 W Goshen Ave
5 / 2 ⇗	⇧ 82 / 25

7

49 / 15 ⇩ N Kelsey St	⇙ 27 / 8 Shannon Pkwy/Riverway
11 / 3 ⇙	⇧ ⇧ ⇧ 3 / 11 14 / 49 8 / 27

8

24 / 81 ⇙ 2 / 5 ⇩ 23 / 76 ⇙ N Kelsey St	P ⇗ 77 / 23 ⇧ 23 / 76 ⇖ 2 / 5 W Riggin Ave
82 / 25 ⇗ 77 / 23 ⇨	⇧ ⇧ 5 / 2 5 / 2

9

3 / 11 ⇩ N Kelsey St	
	⇙ 2 / 5 W Goshen Ave
2 / 5 ⇙	⇖ ⇧ ⇗ 5 / 2 11 / 3 5 / 2

10

Future N Clancy St	
	⇦ 27 / 8 Unnamed North Road
8 / 27 ⇨	

11

24 / 81 ⇙ 2 / 5 ⇩ 61 / 206 ⇙ Future N Clancy St	⇦ 208 / 63 ⇦ 71 / 22 W Riggin Ave
82 / 25 ⇗ 21 / 70 ⇨ 2 / 5 ⇙	⇖ ⇧ 5 / 2 5 / 2

12

N Shirk St	
	⇦ 11 / 3 ⇖ 16 / 5 Avenue 320
3 / 11 ⇨	⇗ 5 / 16

13

16 / 5 ⇩ N Shirk St	
	Shannon Pkwy
8 / 27 ⇙	⇖ ⇧ 27 / 8 5 / 16

14

16 / 5 ⇙ 8 / 27 ⇩ N Shirk St	
	⇦ 99 / 30 W Riggin Ave
5 / 16 ⇗ 29 / 98 ⇨ 48 / 163 ⇙	⇖ ⇧ 164 / 50 27 / 8

15

47 / 157 ⇩ 10 / 33 ⇙ N Shirk St	
W Sunnyview Ave	⇗ 33 / 10 Ferguson Ave
	⇧ 159 / 48

16

3 / 11 ⇙ 43 / 146 ⇩ N Shirk St	
	W Doe Ave
11 / 3 ⇨	⇧ 148 / 45

17

2 / 5 ⇙ 39 / 130 ⇩ 3 / 11 ⇙ N Shirk St	⇙ 11 / 3 W Goshen Ave
5 / 2 ⇗	⇧ 132 / 40

18

39 / 130 ⇩ N Shirk St	
	W Hurley Ave
	⇧ 132 / 40

19

	⇦ 93 / 28 W Riggin Ave
27 / 92 ⇨ 2 / 5 ⇙ N Roeben St	⇖ 5 / 2

20

N Roeben St	⇦ 27 / 8 W Ferguson Ave
8 / 27 ⇨ 2 / 5 ⇗	⇖ 5 / 2

21

N Akers St	⇦ 22 / 7 Avenue 320
6 / 22 ⇨ 2 / 5 ⇗	⇖ 5 / 2

22

2 / 5 ⇙ N Akers St	⇗ 5 / 2 ⇖ 11 / 3 Future Shannon Pkwy
	⇖ 3 / 11

23

11 / 3 ⇙ N Akers St	⇦ 71 / 22 W Riggin Ave
3 / 11 ⇗ 21 / 70 ⇨ 3 / 11 ⇙	⇖ 11 / 3

24

3 / 11 ⇩ N Akers St	P ⇦ 11 / 3 W Ferguson Ave
3 / 11 ⇨ 5 / 16 ⇗	⇖ ⇧ 16 / 5 11 / 3

25

3 / 11 ⇩ 5 / 16 ⇙ N Akers St	⇗ 16 / 5 ⇧ 11 / 3 W Goshen Ave
3 / 11 ⇨	⇧ 11 / 3

26

16 / 5 ⇩ N Shirk St	
	Shannon Pkwy
	⇧ 5 / 16

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

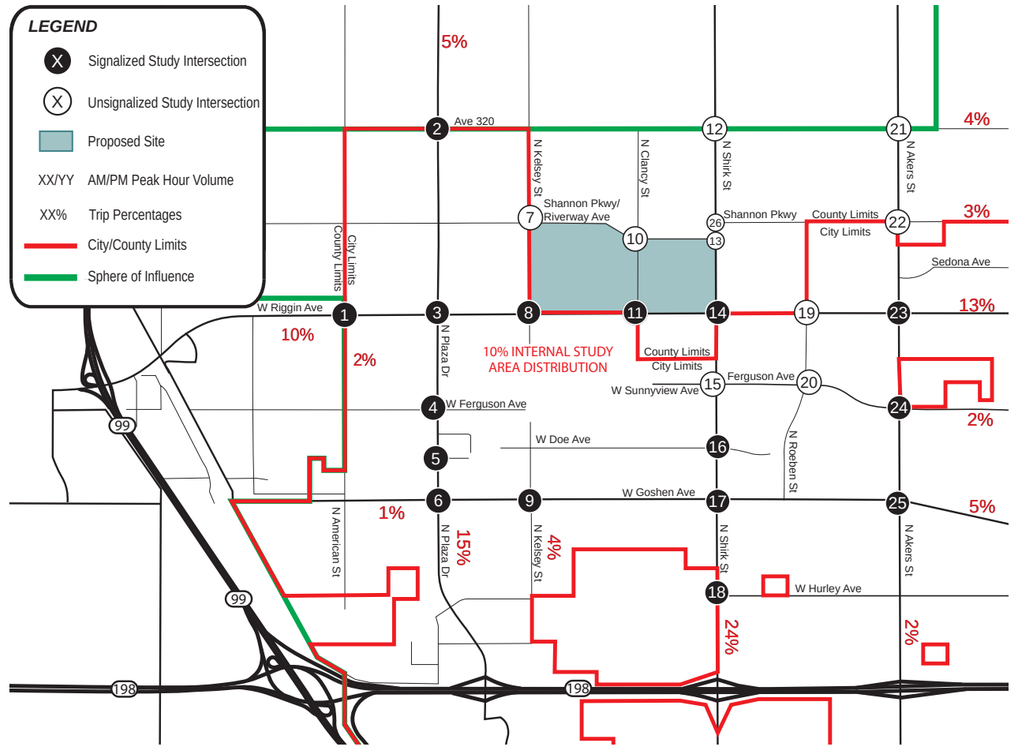


FIGURE 14 PHASE 2 PROJECT TRIP ASSIGNMENT - WEST

1
- W Riggin Ave: 19 / 63 ⇦ ; 4 / 13 ⇖
- N American St: 64 / 20 ⇨ ; 13 / 4 ⇨

2
- N Plaza Dr: 32 / 10 ⇘
- Avenue 320: 9 / 32 ⇖

3
- N Plaza Dr: 77 / 24 ⇨
- W Riggin Ave: 23 / 76 ⇦ ; 32 / 108 ⇙ ; 109 / 33 ⇨

4
- N Plaza Dr: 32 / 108 ⇩
- W Ferguson Ave: 109 / 33 ⇧

5
- N Plaza Dr: 32 / 108 ⇩
- Driveway: 109 / 33 ⇧
- Private Access Road: 109 / 33 ⇧

6
- N Plaza Dr: 2 / 6 ⇖ ; 28 / 95 ⇩ ; 2 / 6 ⇗ ; 6 / 2 ⇗
- W Goshen Ave: 6 / 2 ⇖ ; 96 / 29 ⇧

7
- N Kelsey St: 58 / 18 ⇩ ; 13 / 4 ⇙
- Shannon Pkwy/Riverway: 19 / 6 ⇙ ; 4 / 13 ⇧ ; 17 / 57 ⇧ ; 6 / 19 ⇗

8
- N Kelsey St: 28 / 95 ⇖ ; 2 / 6 ⇩ ; 26 / 89 ⇗ ; 96 / 29 ⇦ ; 90 / 27 ⇨
- W Riggin Ave: 58 / 18 ⇦ ; 26 / 89 ⇦ ; 2 / 6 ⇖ ; 6 / 2 ⇧ ; 6 / 2 ⇧

9
- N Kelsey St: 4 / 13 ⇩
- W Goshen Ave: 2 / 6 ⇦ ; 2 / 6 ⇦ ; 6 / 2 ⇧ ; 13 / 4 ⇧ ; 6 / 2 ⇧

10
- Future N Clancy St: 6 / 19 ⇨
- Unnamed North Road: 19 / 6 ⇦

11
- Future N Clancy St: 19 / 63 ⇘ ; 2 / 6 ⇩ ; 51 / 171 ⇙ ; 64 / 20 ⇨ ; 25 / 82 ⇨ ; 2 / 6 ⇨
- W Riggin Ave: 173 / 53 ⇦ ; 83 / 25 ⇦ ; 6 / 2 ⇧ ; 6 / 2 ⇧

12
- N Shirk St: 4 / 13 ⇨
- Avenue 320: 13 / 4 ⇦ ; 19 / 6 ⇖ ; 6 / 19 ⇧

13
- N Shirk St: 19 / 6 ⇩ ; 6 / 19 ⇙
- Shannon Pkwy: 19 / 6 ⇖ ; 6 / 19 ⇧

14
- N Shirk St: 25 / 82 ⇩ ; 34 / 114 ⇨ ; 42 / 139 ⇙
- W Riggin Ave: 115 / 35 ⇦ ; 141 / 43 ⇧ ; 83 / 25 ⇧

15
- N Shirk St: 55 / 184 ⇩ ; 11 / 38 ⇙
- W Sunnyview Ave: 38 / 12 ⇦
- Ferguson Ave: 186 / 57 ⇧

16
- N Shirk St: 4 / 13 ⇙ ; 51 / 171 ⇩ ; 13 / 4 ⇨
- W Doe Ave: 173 / 53 ⇧

17
- N Shirk St: 2 / 6 ⇖ ; 45 / 152 ⇩ ; 4 / 13 ⇗ ; 6 / 2 ⇙
- W Goshen Ave: 13 / 4 ⇦ ; 154 / 47 ⇧

18
- N Shirk St: 45 / 152 ⇩
- W Hurley Ave: 154 / 47 ⇧

19
- W Riggin Ave: 109 / 33 ⇦
- N Roeben St: 32 / 108 ⇦ ; 2 / 6 ⇗ ; 6 / 2 ⇙

20
- N Roeben St: 9 / 32 ⇩ ; 2 / 6 ⇗
- W Ferguson Ave: 32 / 10 ⇦ ; 6 / 2 ⇙

21
- N Akers St: 8 / 25 ⇨ ; 2 / 6 ⇙
- Avenue 320: 26 / 8 ⇦ ; 6 / 2 ⇙

22
- N Akers St: 2 / 6 ⇙
- Future Shannon Pkwy: 6 / 2 ⇦ ; 13 / 4 ⇙ ; 4 / 13 ⇧

23
- N Akers St: 13 / 4 ⇙ ; 4 / 13 ⇦ ; 25 / 82 ⇨ ; 4 / 13 ⇙
- W Riggin Ave: 83 / 25 ⇦ ; 13 / 4 ⇧

24
- N Akers St: 4 / 13 ⇩ ; 4 / 13 ⇨ ; 6 / 19 ⇙
- W Ferguson Ave: 13 / 4 ⇦ ; 19 / 6 ⇖ ; 13 / 4 ⇧

25
- N Akers St: 4 / 13 ⇩ ; 6 / 19 ⇙ ; 4 / 13 ⇨
- W Goshen Ave: 19 / 6 ⇘ ; 13 / 4 ⇦ ; 13 / 4 ⇧

26
- N Shirk St: 19 / 6 ⇩
- Shannon Pkwy: 6 / 19 ⇧

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

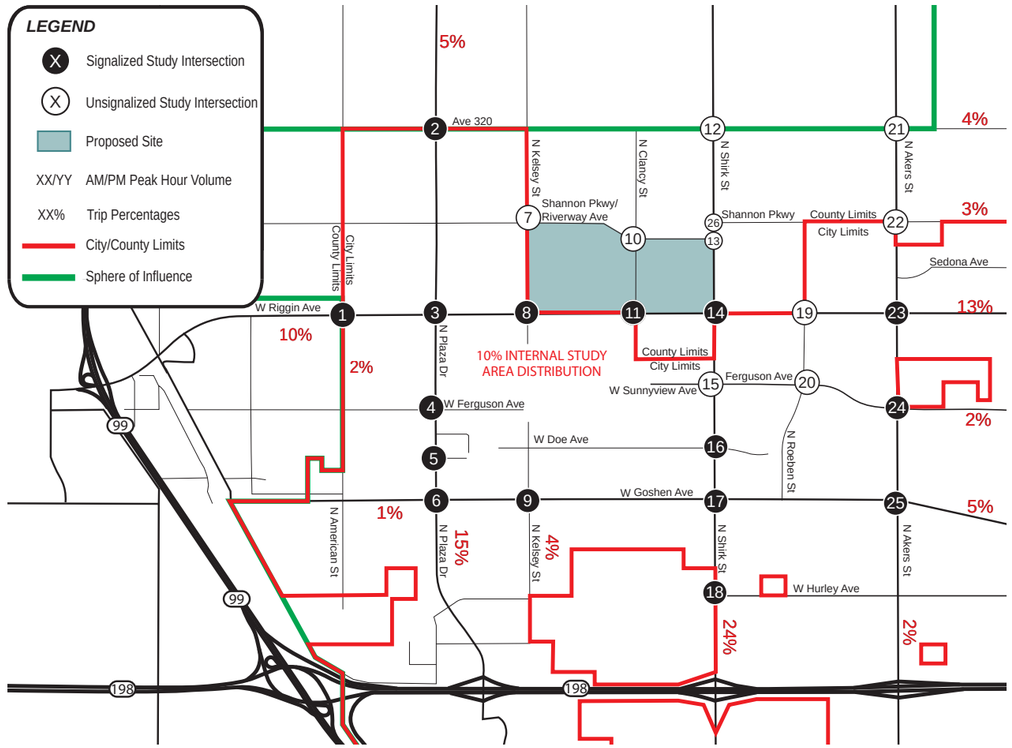


FIGURE 15 PHASE 2 PROJECT TRIP ASSIGNMENT - EAST

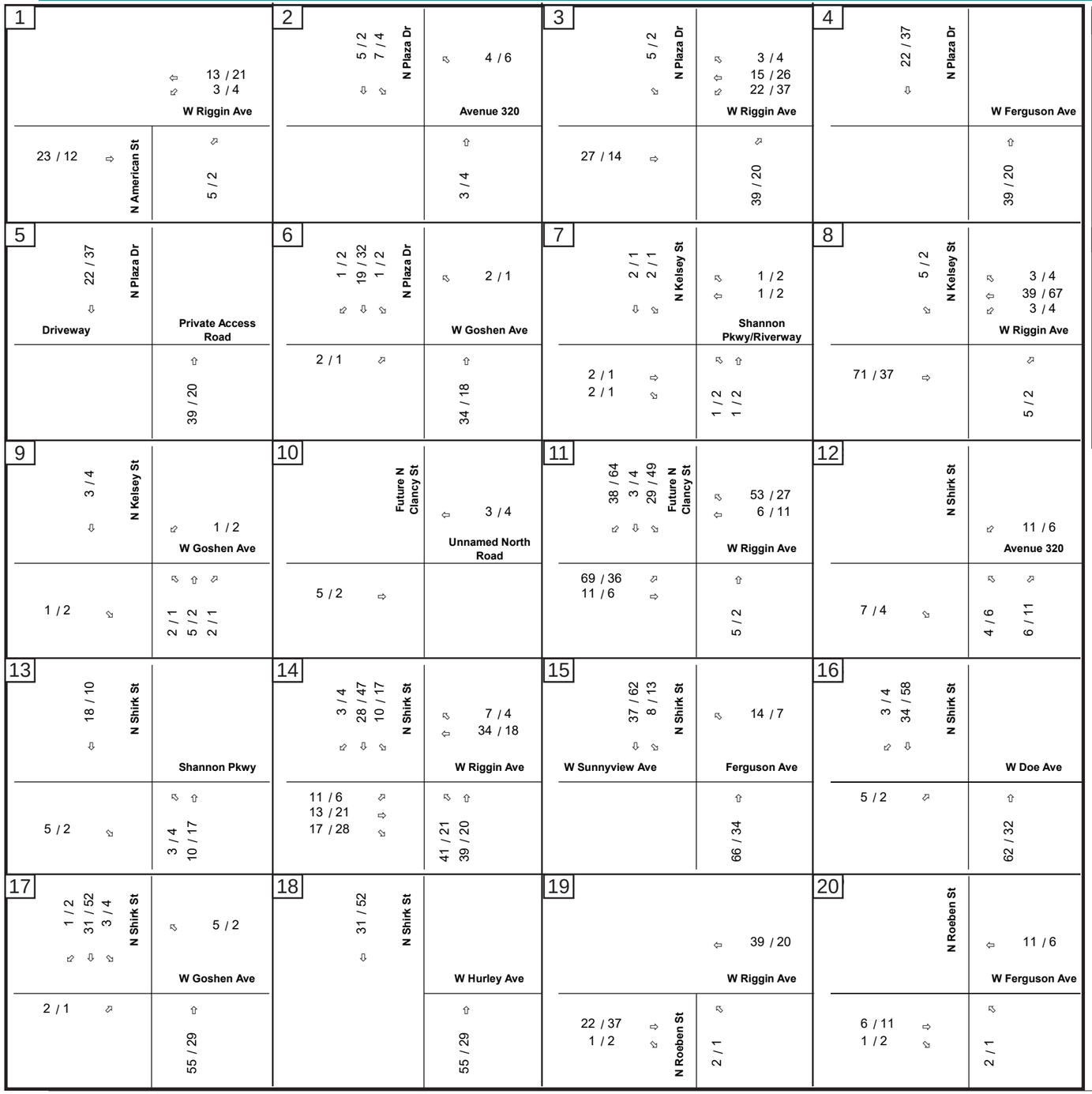


FIGURE 16 PHASE 2 PROJECT TRIP ASSIGNMENT - TOTAL

1

		32 / 84 7 / 17 W Riggin Ave
87 / 32 N American St		18 / 6

2

5 / 2 39 / 14 N Plaza Dr		13 / 38 Avenue 320
		3 / 4

3

5 / 2 N Plaza Dr		3 / 4 38 / 102 54 / 145 W Riggin Ave
104 / 38		148 / 53

4

54 / 145 N Plaza Dr		W Ferguson Ave
		148 / 53

5

54 / 145 N Plaza Dr Driveway		Private Access Road
		148 / 53

6

3 / 8 47 / 127 3 / 8 N Plaza Dr		8 / 3 W Goshen Ave
8 / 3		130 / 47

7

60 / 19 2 / 1 N Kelsey St		1 / 2 1 / 2 19 / 6 Shannon Pkwy/Riverway
2 / 1 15 / 5		5 / 15 18 / 59 6 / 19

8

28 / 95 2 / 6 31 / 91 N Kelsey St		61 / 22 65 / 156 5 / 10 W Riggin Ave
96 / 29 161 / 64		6 / 2 11 / 4

9

7 / 17 N Kelsey St		3 / 8 W Goshen Ave
3 / 8		8 / 3 18 / 6 8 / 3

10

Future N Clancy St		22 / 10 Unnamed North Road
11 / 21		

11

57 / 127 5 / 10 80 / 220 Future N Clancy St		226 / 80 89 / 36 W Riggin Ave
133 / 56 36 / 88 2 / 6		6 / 2 11 / 4

12

N Shirk St		13 / 4 30 / 12 Avenue 320
4 / 13 7 / 4		4 / 6 12 / 30

13

37 / 16 N Shirk St		Shannon Pkwy
11 / 21		22 / 10 16 / 36

14

3 / 4 53 / 129 10 / 17 N Shirk St		7 / 4 149 / 53 W Riggin Ave
11 / 6 47 / 135 59 / 167		182 / 64 122 / 45

15

92 / 246 19 / 51 N Shirk St		52 / 19
W Sunnyview Ave		Ferguson Ave
		252 / 91

16

7 / 17 85 / 229 N Shirk St		W Doe Ave
18 / 6		235 / 85

17

3 / 8 76 / 204 7 / 17 N Shirk St		18 / 6 W Goshen Ave
8 / 3		209 / 76

18

76 / 204 N Shirk St		W Hurley Ave
		209 / 76

19

		148 / 53 W Riggin Ave
54 / 145 3 / 8 N Roeben St		8 / 3

20

N Roeben St		43 / 16 W Ferguson Ave
15 / 43 3 / 8		8 / 3

21

N Akers St		35 / 13 Avenue 320
13 / 34 3 / 8		8 / 3

22

3 / 8 N Akers St		8 / 3 18 / 6 Future Shannon Pkwy
		7 / 17

23

18 / 6 N Akers St		113 / 40 W Riggin Ave
7 / 17 42 / 110 7 / 17		18 / 6

24

7 / 17 N Akers St		18 / 6 W Ferguson Ave
7 / 17 10 / 25		26 / 10 18 / 6

25

7 / 17 10 / 25 N Akers St		26 / 10 18 / 6 W Goshen Ave
7 / 17		18 / 6

26

37 / 16 N Shirk St		Shannon Pkwy
		16 / 36

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

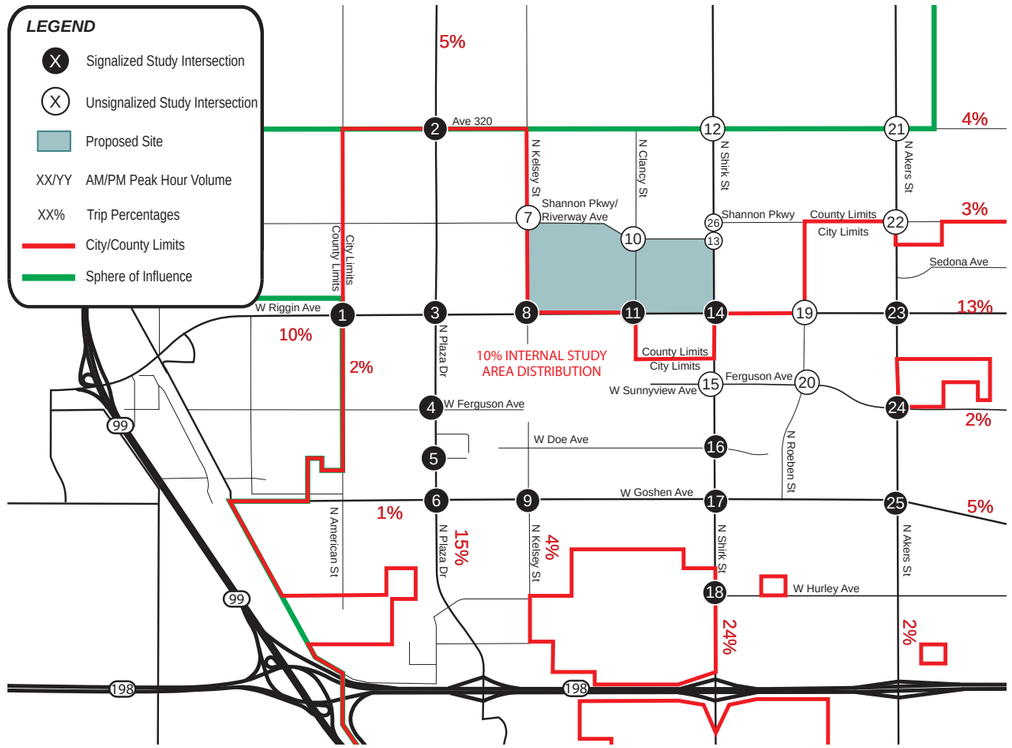


FIGURE 17 PHASE 3 (BUILDOUT) PROJECT TRIP ASSIGNMENT - WEST

1

	19 / 63 4 / 13 W Riggin Ave
64 / 20 N American St	13 / 4

2

32 / 10 N Plaza Dr		9 / 32 Avenue 320

3

N Plaza Dr	23 / 76 32 / 108 W Riggin Ave
77 / 24	109 / 33

4

32 / 108 N Plaza Dr	W Ferguson Ave
	109 / 33

5

32 / 108 N Plaza Dr	
Driveway	Private Access Road
	109 / 33

6

2 / 6 28 / 95 2 / 6 N Plaza Dr		6 / 2 W Goshen Ave
6 / 2		96 / 29

7

58 / 18 N Kelsey St	19 / 6 Shannon Pkwy/Riverway
13 / 4	4 / 13 17 / 57 6 / 19

8

28 / 95 2 / 6 26 / 89 N Kelsey St	58 / 18 26 / 89 2 / 6 W Riggin Ave
96 / 29 90 / 27	6 / 2 6 / 2

9

4 / 13 N Kelsey St	2 / 6 W Goshen Ave
2 / 6	6 / 2 13 / 4 6 / 2

10

Future N Clancy St		19 / 6 Unnamed North Road
6 / 19		

11

19 / 63 2 / 6 51 / 171 Future N Clancy St	173 / 53 83 / 25 W Riggin Ave
64 / 20 25 / 82 2 / 6	6 / 2 6 / 2

12

N Shirk St	13 / 4 19 / 6 Avenue 320
4 / 13	6 / 19

13

19 / 6 N Shirk St	Shannon Pkwy
6 / 19	19 / 6 6 / 19

14

25 / 82 N Shirk St		115 / 35 W Riggin Ave
34 / 114 42 / 139		141 / 43 83 / 25

15

55 / 184 11 / 38 N Shirk St	38 / 12
W Sunnyview Ave	Ferguson Ave
	186 / 57

16

4 / 13 51 / 171 N Shirk St	
	W Doe Ave
13 / 4	173 / 53

17

2 / 6 45 / 152 4 / 13 N Shirk St	13 / 4 W Goshen Ave
6 / 2	154 / 47

18

45 / 152 N Shirk St		W Hurley Ave
		154 / 47

19

	109 / 33 W Riggin Ave
32 / 108 2 / 6 N Roeben St	6 / 2

20

N Roeben St	32 / 10 W Ferguson Ave
9 / 32 2 / 6	6 / 2

21

N Akers St	26 / 8 Avenue 320
8 / 25 2 / 6	6 / 2

22

2 / 6 N Akers St		6 / 2 13 / 4 Future Shannon Pkwy
		4 / 13

23

13 / 4 N Akers St	83 / 25 W Riggin Ave
4 / 13 25 / 82 4 / 13	13 / 4

24

4 / 13 N Akers St	13 / 4 W Ferguson Ave
4 / 13 6 / 19	19 / 6 13 / 4

25

4 / 13 4 / 13 N Akers St		13 / 4 19 / 6 W Goshen Ave
6 / 19		13 / 4

26

19 / 6 N Shirk St	Shannon Pkwy
	6 / 19

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

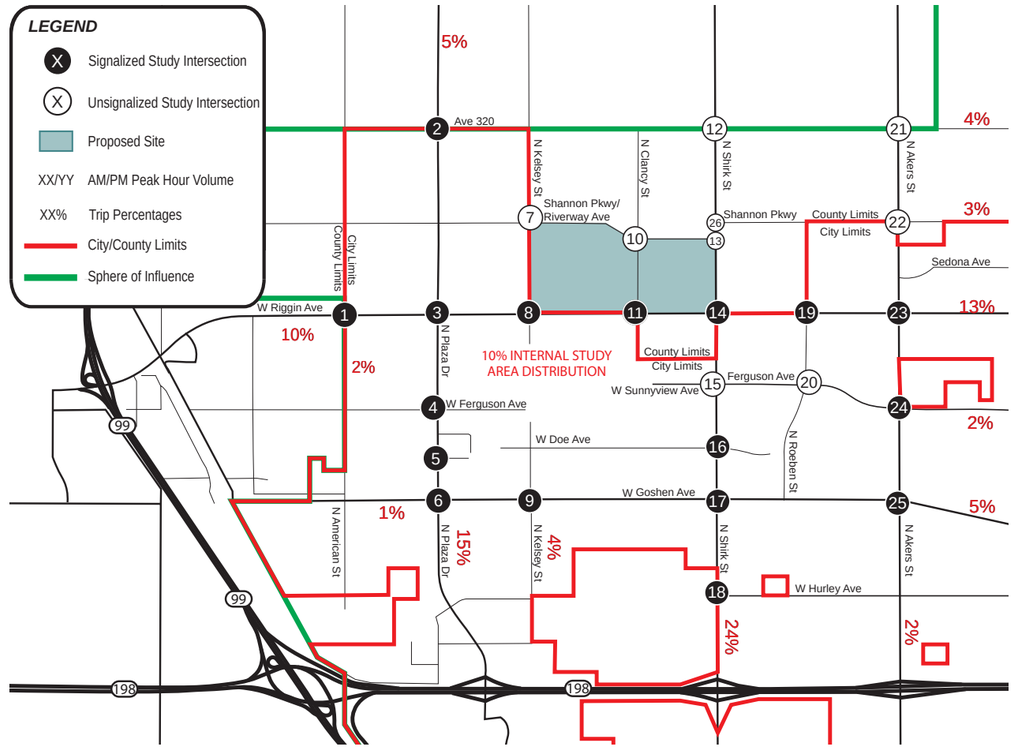


FIGURE 18 PHASE 3 (BUILDOUT) PROJECT TRIP ASSIGNMENT - EAST

1
20 / 46
4 / 9
W Riggin Ave
48 / 20
N American St
10 / 4

2
10 / 4
14 / 6
N Plaza Dr
6 / 14
Avenue 320
4 / 9

3
10 / 4
N Plaza Dr
4 / 9
24 / 56
35 / 79
W Riggin Ave
57 / 24
81 / 34

4
35 / 79
N Plaza Dr
W Ferguson Ave
81 / 34

5
35 / 79
N Plaza Dr
Driveway
Private Access Road
81 / 34

6
2 / 5
30 / 70
2 / 5
N Plaza Dr
5 / 2
W Goshen Ave
5 / 2
72 / 30

7
5 / 2
5 / 2
N Kelsey St
2 / 5
2 / 5
Shannon Pkwy/Riverway
5 / 2
5 / 2
2 / 5
2 / 5

8
10 / 4
N Kelsey St
4 / 9
63 / 144
4 / 9
W Riggin Ave
148 / 63
10 / 4

9
4 / 9
N Kelsey St
2 / 5
W Goshen Ave
2 / 5
5 / 2
10 / 4
5 / 2

10
Future N Clancy St
4 / 9
Unnamed North Road
10 / 4

11
53 / 121
2 / 5
32 / 74
Future N Clancy St
62 / 26
18 / 42
2 / 5
W Riggin Ave
124 / 53
43 / 18
5 / 2
5 / 2

12
N Shirk St
24 / 10
Avenue 320
14 / 6
6 / 14
10 / 23

13
38 / 16
N Shirk St
Shannon Pkwy
10 / 4
4 / 9
16 / 37

14
4 / 9
51 / 116
24 / 56
N Shirk St
43 / 18
43 / 18
W Riggin Ave
24 / 10
12 / 28
20 / 46
67 / 28
100 / 43

15
59 / 135
12 / 28
N Shirk St
W Sunnyview Ave
29 / 12
Ferguson Ave
138 / 59

16
4 / 9
55 / 125
N Shirk St
W Doe Ave
10 / 4
129 / 55

17
2 / 5
49 / 112
4 / 9
N Shirk St
10 / 4
W Goshen Ave
5 / 2
115 / 49

18
49 / 112
N Shirk St
W Hurley Ave
115 / 49

19
81 / 34
W Riggin Ave
35 / 79
2 / 5
N Roeben St
5 / 2

20
N Roeben St
24 / 10
W Ferguson Ave
10 / 23
2 / 5
5 / 2

21
N Akers St
19 / 8
Avenue 320
8 / 19
2 / 5
5 / 2

22
2 / 5
N Akers St
5 / 2
10 / 4
Future Shannon Pkwy
4 / 9

23
10 / 4
N Akers St
62 / 26
W Riggin Ave
4 / 9
26 / 60
4 / 9
10 / 4

24
4 / 9
N Akers St
10 / 4
W Ferguson Ave
4 / 9
6 / 14
14 / 6
10 / 4

25
4 / 9
6 / 14
N Akers St
14 / 6
10 / 4
W Goshen Ave
4 / 9
10 / 4

26
38 / 16
N Shirk St
Shannon Pkwy
16 / 37

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

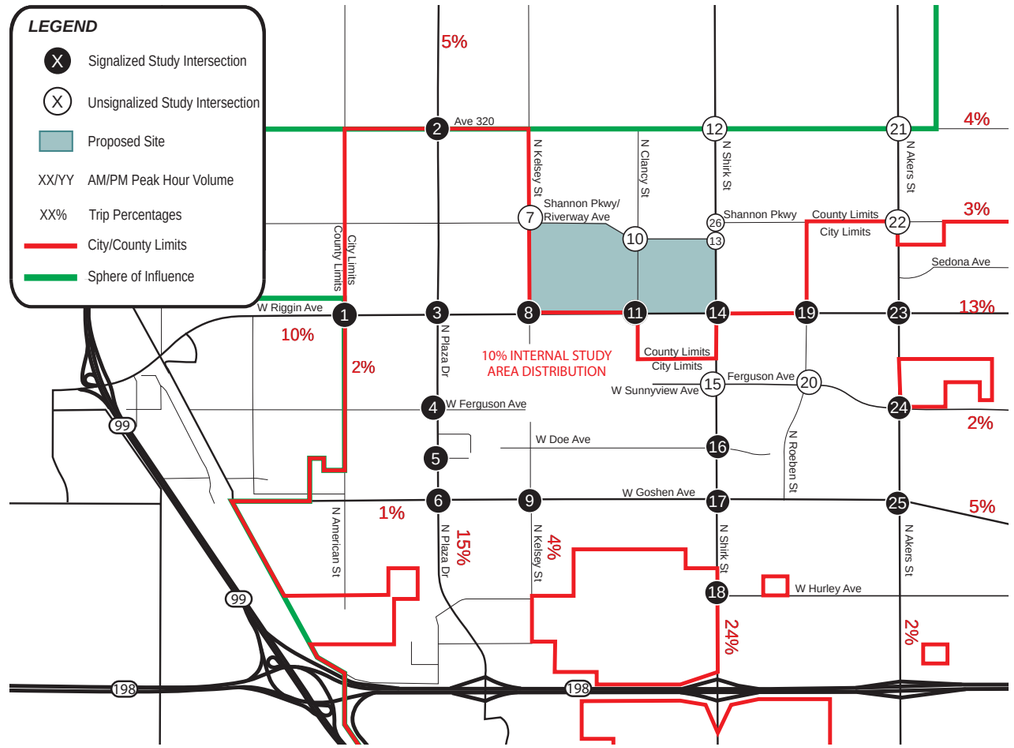


FIGURE 19 PHASE 3 (BUILDOUT) PROJECT TRIP ASSIGNMENT - TOTAL

1

		39 / 109 8 / 22 W Riggin Ave
112 / 40 N American St		23 / 8

2

10 / 4 46 / 16 N Plaza Dr		15 / 46 Avenue 320
		4 / 9

3

10 / 4 N Plaza Dr		4 / 9 47 / 132 67 / 187 W Riggin Ave
134 / 48		190 / 67

4

67 / 187 N Plaza Dr		W Ferguson Ave
		190 / 67

5

67 / 187 N Plaza Dr Driveway		Private Access Road
		190 / 67

6

4 / 11 58 / 165 4 / 11 N Plaza Dr		11 / 4 W Goshen Ave
11 / 4		168 / 59

7

63 / 20 5 / 2 N Kelsey St		2 / 5 2 / 5 19 / 6 Shannon Pkwy/Riverway
5 / 2 18 / 6		6 / 18 19 / 62 6 / 19

8

28 / 95 2 / 6 36 / 93 N Kelsey St		62 / 27 89 / 233 6 / 15 W Riggin Ave
96 / 29 238 / 90		6 / 2 16 / 6

9

8 / 22 N Kelsey St		4 / 11 W Goshen Ave
4 / 11		11 / 4 23 / 8 11 / 4

10

Future N Clancy St		23 / 15 Unnamed North Road
16 / 23		

11

72 / 184 4 / 11 83 / 245 Future N Clancy St		235 / 79 101 / 67 2 / 5 W Riggin Ave
188 / 73 68 / 100 2 / 6		6 / 2 11 / 4 5 / 2

12

N Shirk St		13 / 4 43 / 16 Avenue 320
4 / 13 14 / 6		6 / 14 16 / 42

13

57 / 22 N Shirk St		Shannon Pkwy
16 / 23		23 / 15 22 / 56

14

4 / 9 76 / 198 24 / 56 N Shirk St		43 / 18 158 / 53 W Riggin Ave
24 / 10 46 / 142 62 / 185		208 / 71 183 / 68

15

114 / 319 23 / 66 N Shirk St		67 / 24 Ferguson Ave
W Sunnyview Ave		324 / 116

16

8 / 22 106 / 296 N Shirk St		W Doe Ave
23 / 8		302 / 108

17

4 / 11 94 / 264 8 / 22 N Shirk St		23 / 8 W Goshen Ave
11 / 4		269 / 96

18

94 / 264 N Shirk St		W Hurley Ave
		269 / 96

19

		190 / 67 W Riggin Ave
67 / 187 4 / 11 N Roeben St		11 / 4

20

N Roeben St		56 / 20 W Ferguson Ave
19 / 55 4 / 11		11 / 4

21

N Akers St		45 / 16 Avenue 320
16 / 44 4 / 11		11 / 4

22

4 / 11 N Akers St		11 / 4 23 / 8 Future Shannon Pkwy
		8 / 22

23

23 / 8 N Akers St		145 / 51 W Riggin Ave
8 / 22 51 / 142 8 / 22		23 / 8

24

8 / 22 N Akers St		23 / 8 W Ferguson Ave
8 / 22 12 / 33		33 / 12 23 / 8

25

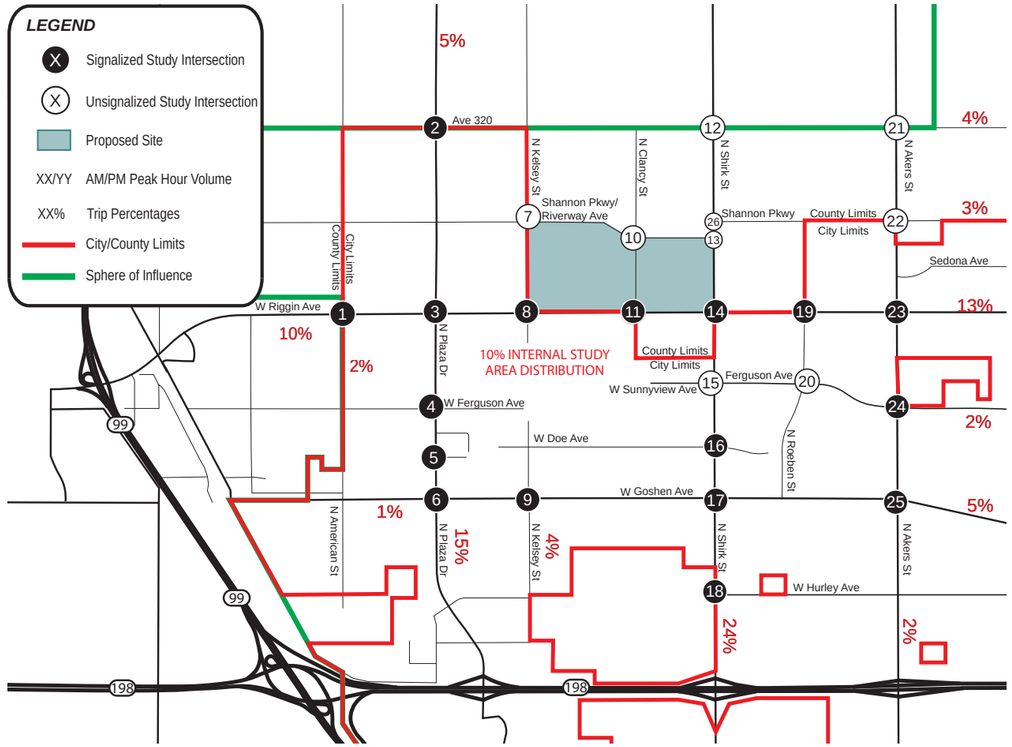
8 / 22 10 / 27 N Akers St		27 / 10 29 / 10 W Goshen Ave
10 / 28		23 / 8

26

57 / 22 N Shirk St		Shannon Pkwy
		22 / 56

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence



4. VEHICLE MILES TRAVELED ANALYSIS (CEQA)

This chapter discussed the VMT screening and analysis conducted for the proposed project.

SCREENING

The City VMT Guidelines provides details on appropriate screening thresholds that can be used to identify when a proposed land use project is presumed to result in a less than significant impact such that a more detailed level analysis is not warranted. Screening thresholds related to the proposed land use is broken into the following three steps:

1. Transit Priority Area (TPA) Screening
   As described in the OPR Technical Advisory, projects located within a half-mile from an existing major transit stop or within half of a mile from an existing stop along a high-quality transit corridor can be screened out.
2. Low VMT Area Screening
   Projects that are consistent with the City's General Plan and are located within low VMT efficient areas average can be screened out. For office land uses, these areas are identified in Figure 7 of the City's guidelines.
3. Low Project Type Screening
   Projects that are consistent with the City's General Plan and generate less than 1,000 daily trips could be considered not to lead to a significant impact and can be screened out. For projects that are not consistent with the City's General Plan, the trip threshold is 500 daily trips.

A land use project must only meet one of the above screening thresholds to be presumed to not result in a significant impact under CEQA pursuant to SB 743. However, the proposed project does not meet any of the criteria that would allow the proposed project to be presumed to have less than significant impacts and thus screened out from further evaluation. Therefore, a complete VMT analysis is required to further evaluate the potential VMT impacts of the proposed project. **Appendix M** contains the City's screening maps contained in the City VMT Guidelines.

EMPLOYMENT GENERATION

The ITE manual was also utilized to estimate employment expected to be added by the proposed project. **Table A** contains a summary of the proposed project's total expected employment generated, which is estimated by comparing ITE's trip rate per employee to the expected daily traffic generated. Based on this estimated 4,177 employees, 4,180 employees were utilized for purposes of this VMT analysis.

Land Use	Daily Trips Using ITE Rates	Trip Rate per Employee[1]	Employees Estimate
Industrial Park	11,994	2.91	4,122
Convenience Market w/ Gasoline Pumps (fueling positions)[2]	4,848	500	10
Self-Service Car Wash (1)[2]	108	100	1
Fast-Food Restaurant w/ D.T.	2,214	54.81	40
Mini-Warehouse[2]	210	50	4
TOTAL =	**19,374**		**4,177**

Note:
1. Employee Trip Rates per ITE Trip Generation Manual, 11th Edition.
2. Employee rates not available through ITE since this constitutes a low employment land use. Rates estimated based on expected employment.

TRIP TYPE

As documented under Methodology (Section 1), the VMT analysis is based on the net increase in VMT per employee within the TAZ where the site is located, consistent with the recommended VMT significance threshold in the City's VMT Guidelines. To evaluate this industrial land use type, employee commute trips are considered. The following discussion is provided regarding the employee commute trips and other trip types.

Employee commute trips. These are the primary automobile trips associated with employment generating uses such as the proposed project's industrial land use. The proposed project would provide additional employment opportunities and would primarily add employee commute related trips to the study area. The efficiency of VMT associated with employee commute trips has been assessed based on the TCAG travel demand model, consistent with the City's VMT guidelines.

Other trips. These are generally the smallest number and shortest distance of trips for a land use and include a broad range of trip types such as employee lunches off-site, maintenance teams for on-site infrastructure, supply deliveries, etc. As such, their impact to the overall VMT of the proposed project is assumed to be minimal. Therefore, it is not likely that they are impactful to the local transportation system and are secondary to the commute trips. However, it should be noted that the minimal impacts from these trips are accounted for by the TCAG travel demand model.

PROJECT VMT

The calculation of VMT has two components; the total number of trips generated and the average trip length of passenger vehicles. TCAG maintains the regional travel demand model that was developed under the San Joaquin Valley Model Improvement Plan Phase 2 (VMIP 2). As recommended by the City VMT guidelines, the latest available TCAG travel demand model developed as part of the VMIP 2 was used for determining the proposed project's VMT. The TCAG model is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The same model scenario (Base year 2015) used for developing the City of Visalia thresholds was used to calculate the proposed project's VMT, consistent with the OPR Technical Advisory. Adjustments in socio-economic data (employment) were made to the appropriate TAZ within the TCAG model to reflect the proposed project's industrial land use and employment.

VMT PER EMPLOYEE – TAZ 1696/1697

The proposed project is located completely within TAZs 1696 and 1697, which is currently be used for agricultural purposes. The TCAG model does not include VMT per employee information that can be used for comparison of net-change in VMT. With the addition of the proposed project, the TCAG model indicates that the average employee VMT would be 11.5 miles. **Appendix M** contains TCAG model calculations.

TAZ#	Existing TAZ VMT	Existing Plus Project TAZ VMT	Net Change in VMT per Employee	Potentially Significant?
1696 & 1697	N/A	11.5	N/A	N/A

VMT PER EMPLOYEE – TAZ 1210

Since the TAZs where the proposed project is located does not contain existing VMT per employee data, the proposed project was modeled within the adjacent TAZ 1210, which is located on the western boundary of the site. The TCAG model indicates that the existing average employee VMT is 10.0 miles. With the addition of the proposed project within TAZ 1210, the average employee VMT would be 8.9, a reduction of 1.1 VMT per employee. **Appendix M** contains TCAG model calculations.

TAZ#	Existing TAZ VMT	Existing Plus Project TAZ VMT	Net Change in VMT per Employee	Potentially Significant?
1210	10.0	8.9	-1.1	No

VMT PER EMPLOYEE – TAZ 1475

VMT analysis results of the project were also modeled within the adjacent TAZ 1475, which is located adjacent to the southwest corner of the site. The TCAG model indicates that the existing average employee VMT is 9.5 miles. With the addition of the proposed project within TAZ 1475, the average employee VMT would be 10.9, an increase of 1.4 VMT per employee. **Appendix M** contains TCAG model calculations.

TAZ#	Existing TAZ VMT	Existing Plus Project TAZ VMT	Net Change in VMT per Employee	Potentially Significant?
1475	9.5	10.9	+1.4	Yes

POTENTIAL IMPACTS

OPR's guidance provides latitude for the reviewing agency to implement elements of VMT standards. Since the TAZs where the proposed project is located does not contain existing VMT per employee data, the average VMT per employee determined by the proposed project modeled within TAZs 1210 and 1475 were used. **Table 6** summarizes existing VMT and existing plus project VMT within TAZs 1210 and 1475, and shows that the proposed project is expected to increase the VMT per employee by approximately 0.15 miles, or 1.54 percent of the total mile traveled. Therefore, the proposed project would result in a significant VMT impact, requiring mitigation.

Table 7 – VMT Impact Evaluation

TAZ#	Existing TAZ	Existing Plus Project TAZ	Net Change in VMT per Employee	Potentially Significant?
1210	10.0	8.9	-1.1	No
1475	9.5	10.9	+1.4	Yes
Average	**9.75**	**9.90**	**+0.15**	**Yes**

5. LOCAL TRANSPORTATION ANALYSIS (NON-CEQA)

This chapter will discuss non-CEQA traffic operation analysis prepared to determine the effect of the proposed project on the transportation system. This operational traffic analysis includes an evaluation of intersection LOS, vehicle queuing in turn pockets, signal warrant, and historic collisions.

INTERSECTION LEVEL OF SERVICE

Intersection LOS analysis was conducted to evaluate the proposed project's effect on the operation of study intersections.

EXISTING (2022) CONDITIONS

Existing (2022) Conditions represents the on-the-ground conditions present in June 2022, when the proposed project's environmental review was initiated. This scenario does not include any trips from the proposed project.

Existing (2022) Traffic Volumes

Existing (2022) Traffic Volumes were discussed in Chapter 3 and summarized in **Figure 4**.

Existing (2022) Lane Configuration and Control

Existing (2022) Transportation Conditions were discussed in Chapter 3 and summarized in **Figure 3**.

Existing (2022) Level of Service

Table 7 displays the intersection LOS analysis results under Existing (2022) Conditions, showing all intersections are expected to operate at LOS D or better during the commuter peak periods.

Appendix G contains the intersection LOS calculation worksheets.

TABLE 8 EXISTING (2022) INTERSECTION LEVEL OF SERVICE SUMMARY

EXISTING (2022)
INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	JURISDICTION	TRAFFIC CONTROL	PEAK HOUR	EXISTING (2022) CONDITIONS	
					DELAY (a)	LOS (b)
1	N American St & W Riggin Ave	City/County	Signal	AM	9.3	A
				PM	19.8	B
2	N Plaza Drive & Avenue 320	City/County	Two-Way Stop	AM	30.0	D
				PM	30.5	D
3	N Plaza Drive & W Riggin Ave	City	Signal	AM	29.4	C
				PM	25.1	C
4	N Plaza Dr & W Ferguson Ave	City	Signal	AM	29.9	C
				PM	29.8	C
5	N Plaza Dr & Private Access Road	City	Two-Way Stop	AM	13.3	B
				PM	15.4	C
6	N Plaza Dr & W Goshen Ave	City	Signal	AM	35.4	D
				PM	54.5	D
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	City/County	Two-Way Stop	AM	9.3	A
				PM	9.4	A
8	N Kelsey St & W Riggin Ave	City/County	Signal	AM	6.8	A
				PM	8.5	A
9	N Kelsey St & W Goshen Ave	City	Signal	AM	16.4	B
				PM	19.2	B
10	Future N Clancy St & Unnamed North Road	County	Two-Way Stop	AM	9.1	A
				PM	9.0	A
11	Future N Clancy St & W Riggin Ave	City/County	Two-Way Stop	AM	0.0	A
				PM	0.0	A
12	N Shirk St & Avenue 320	County	Two-Way Stop	AM	11.9	B
				PM	10.8	B
13	N Shirk St & Shannon Pkwy	County	Two-Way Stop	AM	9.3	A
				PM	0.0	A
14	N Shirk St & W Riggin Ave	City/County	All-Way Stop	AM	17.6	C
				PM	15.3	C
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	City	All-Way Stop	AM	12.9	B
				PM	13.1	B
16	N Shirk St & W Doe Ave	City	All-Way Stop	AM	33.3	D
				PM	19.2	C
17	N Shirk St & W Goshen Ave	City	Signal	AM	36.9	D
				PM	30.1	C
18	N Shirk St & W Hurley Ave	City/County	Signal	AM	50.9	D
				PM	20.0	C
19	N Roeben St & W Riggin Ave	City/County	One-Way Stop	AM	12.5	B
				PM	11.7	B
20	N Roeben St & W Ferguson Ave	City	Two-Way Stop	AM	11.5	B
				PM	13.0	B
21	N Akers St & Avenue 320	County	Two-Way Stop	AM	9.1	A
				PM	9.2	A
22	N Akers St & Future Shannon Parkway	County	Two-Way Stop	AM	0.0	A
				PM	9.2	A
23	N Akers St & W Riggin Ave	City	Signal	AM	39.1	D
				PM	24.2	C
24	N Akers St & W Ferguson Ave	City/County	Signal	AM	45.4	D
				PM	35.8	D
25	N Akers St & W Goshen Ave	City	Signal	AM	45.0	D
				PM	36.9	D
26	N Shirk St & Shannon Parkway	County	Two-Way Stop	AM	0.0	A
				PM	0.0	A

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* and performed using Synchro 11.0
City - City of Visalia
County - Tulare County

K:\SND_TPTO\195170025_Project Ritchie\ANALYSIS\EXCEL\[Shirk and Riggin Industrial Park_IN01.xlsm]Existing

NEAR-TERM (2025) CONDITIONS

Near-Term (2025) Conditions were evaluated because this represents the opening year of Phase 1 of the proposed project, which is assumed to occur in 2025

Near-Term (2025) Traffic Volumes

Per the approval of City staff, Near-Term (2025) traffic volumes were developed by applying a 2 percent annual growth (6 percent total) to Existing (2022) traffic volumes to account for general population growth, and by adding traffic generated by cumulative projects within the study area. The annual growth rate was determined based on a growth assumed within the TCAG Regional Travel Demand Forecast Model traffic projections, and is consistent with other recent TIAs performed within the City of Visalia. Cumulative projects include all developments identified by City of Visalia staff to be in planning process or approved, but not constructed, as of August 2022, and was provided August 2022. The cumulative projects identified for Near-Term (2025) Conditions are summarized in **Table 8**.

Appendix H contains detailed information and calculations related to the development of cumulative traffic volumes, including documentation of trip generation/distribution/assignment assumptions. **Figure 20** shows the locations of the cumulative projects. Near-Term (2025) peak hour turning movement volumes are presented on **Figure 21**.

Near-Term (2025) Lane Configuration and Control

Per coordination with City staff, roadway improvements are anticipated to be constructed within the study area between Existing (2022) Conditions and Near-Term (2025) Conditions. The following is a summary of relevant improvements identified by the projects listed in **Table 8** and the City's Capital Improvement Projects (CIP), which are expected to be completed prior to 2025, which are assumed to be in place in the Near-Term (2025) Conditions.

Riggin Avenue Widening & Improvements CIP

Under the Near-Term (2025) Conditions, it is assumed that the City's CIP, the Riggin Avenue Widening & Improvements project would be completed. Improvements include the widening of W Riggin Ave, between N Kelsey St and N Shirk St, from two to four lanes. The following summarizes the improvements at the study area intersections:

- Future N Clancy St & W Riggin Ave
  - Provide an eastbound/westbound left-turn pocket and additional thru lane
- N Shirk St & W Riggin Ave
  - Provide northbound left-turn pocket
  - Provide southbound left-turn and right-turn pockets
  - Provide eastbound/westbound left-turn pockets, additional thru lanes and right-turn pockets
  - Signalize intersection

Table 9 – Cumulative Projects Assumed for Near-Term (2025) Conditions

Project	Project Description	Trip Generation	AM Peak	PM Peak	Status
*Project Goldbar	1,033 KSF Warehouse and Distribution	Custom Rate – 920 ADT	284 IB / 4 OB	120 IB / 280 OB	Constructed Complete
*Mid-Valley Logistics Center	536 KSF General Light Industrial	ITE (LU 110)	351 IB / 51 OB	51 IB / 303 OB	Approved
*Crowley Park Office Campus (SPR 22-073)	35-AC Mixed-Use Development	ITE (LU 310, 710, 720 932 & 934) – 6,525 ADT	481 IB / 172 OB	634 IB / 186 OB	Approved
****YS Industrial Park Phase 2 (SPR 21-150)	354 KSF Warehouse and Distribution	ITE (LU 154) – 605 ADT	49 IB / 25 OB	20 IB / 61 OB	Under Construction
****Sandridge Partners, LP – Visalia Industrial (SPR 21-189)	100 KSF Industrial Warehouse	ITE (LU 150) – 171 ADT	14 IB / 7 OB	6 IB / 7 OB	Under Construction
****Central Point III (SPR 21-231)	2,681 KSF Warehouse and Distribution	ITE (LU 154) – 3,753 ADT	165 IB / 49 OB	75 IB / 193 OB	Approved
**Visalia Logistics Center Phase 2, Building 1 (SPR 20-185)	1,112 KSF Warehouse	Custom Rate – ADT not provided	284 IB / 278 OB	283 IB / 279 OB	Constructed Complete
****Pheasant Ridge Unit No. 7 Phase 1 (San Marino Phase 4) (SPR 22-061)	22 Single-Family Homes	ITE (LU 210) – 207 ADT	4 IB / 11 OB	13 IB / 8 OB	Approved
****Shirk & Doe Apartment Complex	200-Unit Apartment Complex	ITE (LU 220) – 1,348 ADT	19 IB / 61 OB	64 IB / 38 OB	Approved
***Carlton Acres Specific Plan – Phase 1 (SPR 22-071/073)	Portion of 507-AC Mixed Use Development (including 161 KSF Costco/Car Wash/Gas Station)	ITE (LU 210, 220 & 821) + Custom (Costco) – 21,004 ADT	328 IB / 447 OB	1,209 IB / 1,158 OB	Approved

*Traffic study prepared by Kimley-Horn. Trip generation, distribution and assignments details known.

**Trip generation information obtained from City. Trip distribution and assignment assumptions modeled.

***Trip generation, distribution and assignments obtained from development team.

****Trip generation, distribution and assignments assumptions modeled since information not available.

FIGURE 20 CUMULATIVE PROJECT LOCATIONS

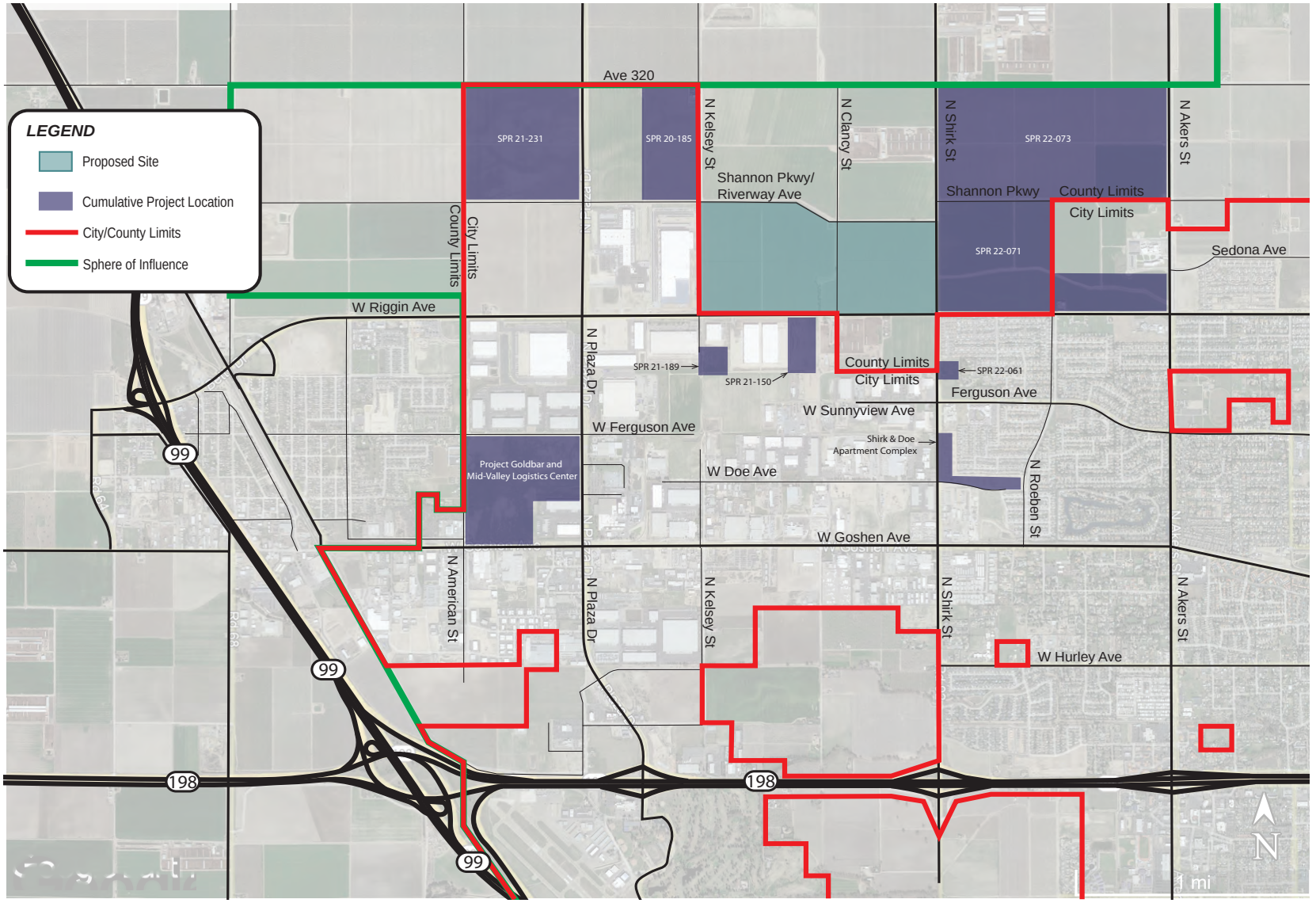


FIGURE 21 NEAR-TERM (2025) PEAK HOUR TURNING MOVEMENT VOLUMES

1

		668 / 730 18 / 57 **W Riggin Ave**
37 / 38 754 / 766 7 / 3 **N American St**	4 / 11 46 / 34	

2

1 / 0 630 / 485 58 / 65 **N Plaza Dr**	92 / 39 59 / 60 103 / 86 **Avenue 320**
1 / 1 62 / 61 36 / 17	11 / 43 438 / 718 106 / 100

3

259 / 259 515 / 432 61 / 101 **N Plaza Dr**	92 / 122 365 / 333 169 / 112 **W Riggin Ave**
248 / 272 282 / 412 247 / 116	81 / 206 428 / 664 70 / 164

4

106 / 48 828 / 694 4 / 3 **N Plaza Dr**	0 / 10 11 / 38 **W Ferguson Ave**
18 / 104 0 / 1 58 / 158	180 / 93 635 / 866 13 / 21

5

168 / 32 765 / 948 5 / 1 **N Plaza Dr**	1 / 3 1 / 6 **Private Access Road**
Driveway 20 / 149 32 / 252	282 / 61 834 / 839 19 / 3

6

48 / 96 571 / 808 182 / 255 **N Plaza Dr**	225 / 187 136 / 155 61 / 82 **W Goshen Ave**
91 / 96 167 / 231 218 / 233	181 / 161 844 / 670 69 / 61

7

56 / 56 121 / 177 **N Kelsey St**	1 / 0 2 / 2 **Shannon Pkwy/Riverway**
57 / 57 5 / 19	17 / 8 154 / 178 1 / 1

8

17 / 99 57 / 65 64 / 111 **N Kelsey St**	94 / 123 540 / 354 24 / 10 **W Riggin Ave**
60 / 69 317 / 558 32 / 16	13 / 35 65 / 62 6 / 23

9

41 / 98 69 / 144 87 / 172 **N Kelsey St**	149 / 59 368 / 262 132 / 55 **W Goshen Ave**
75 / 31 285 / 403 48 / 40	33 / 40 129 / 51 62 / 118

10

3 / 4 2 / 0 **Future N Clancy St**	1 / 0 **Unnamed North Road**
	7 / 3

11

0 / 3 **Future N Clancy St**	0 / 4 641 / 509 4 / 6 **W Riggin Ave**
335 / 718 6 / 2	3 / 7 2 / 7

12

8 / 7 57 / 33 2 / 6 **N Shirk St**	4 / 2 97 / 18 25 / 14 **Avenue 320**
5 / 9 63 / 117 30 / 28	17 / 14 31 / 86 7 / 25

13

117 / 84 **N Shirk St**	**Shannon Pkwy**
1 / 0	62 / 120

14

26 / 41 134 / 278 17 / 114 **N Shirk St**	43 / 192 483 / 357 112 / 180 **W Riggin Ave**
22 / 95 280 / 535 115 / 147	168 / 140 93 / 351 64 / 171

15

25 / 4 331 / 565 59 / 88 **N Shirk St**	65 / 85 21 / 2 135 / 68 **Ferguson Ave**
W Sunnyview Ave 5 / 54 2 / 36 23 / 88	60 / 35 255 / 540 72 / 100

16

110 / 39 376 / 669 2 / 5 **N Shirk St**	6 / 2 27 / 8 201 / 55 **W Doe Ave**
24 / 112 2 / 10 40 / 206	177 / 68 332 / 564 43 / 88

17

126 / 95 491 / 721 67 / 134 **N Shirk St**	95 / 100 368 / 219 80 / 46 **W Goshen Ave**
48 / 149 202 / 414 176 / 236	214 / 107 486 / 487 98 / 78

18

464 / 902 26 / 87 **N Shirk St**	59 / 76 67 / 32 **W Hurley Ave**
	746 / 676 33 / 80

19

	696 / 1005 83 / 34 **W Riggin Ave**
392 / 852 9 / 65 **N Roeben St**	63 / 9 82 / 37

20

15 / 5 6 / 11 25 / 16 **N Roeben St**	8 / 33 175 / 130 41 / 58 **W Ferguson Ave**
10 / 16 101 / 184 2 / 3	2 / 1 10 / 12 43 / 58

21

0 / 1 0 / 1 **N Akers St**	1 / 1 67 / 32 54 / 41 **Avenue 320**
33 / 81 14 / 26	21 / 25 1 / 0 24 / 52

22

72 / 69 **N Akers St**	0 / 1 **Future Shannon Pkwy**
	50 / 77

23

124 / 80 321 / 69 178 / 35 **N Akers St**	169 / 85 535 / 534 184 / 106 **W Riggin Ave**
132 / 47 272 / 609 75 / 257	119 / 358 248 / 213 146 / 178

24

71 / 30 551 / 295 43 / 34 **N Akers St**	51 / 33 162 / 128 240 / 102 **W Ferguson Ave**
62 / 33 109 / 129 251 / 114	133 / 205 355 / 483 113 / 239

25

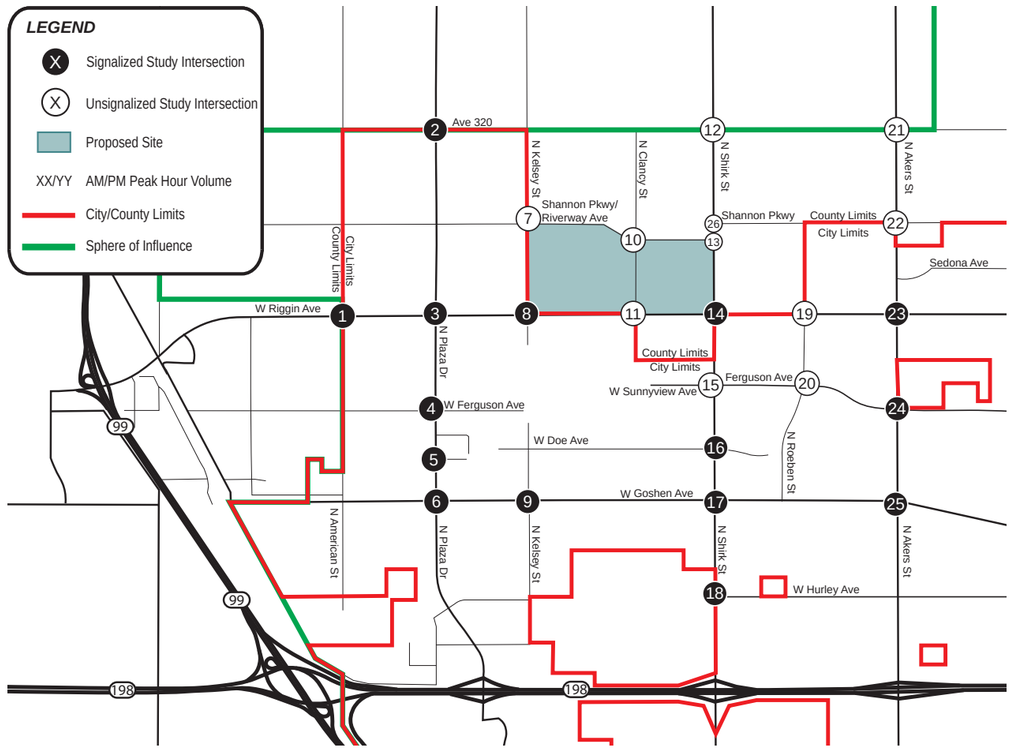
94 / 64 719 / 422 295 / 208 **N Akers St**	129 / 213 272 / 226 159 / 105 **W Goshen Ave**
47 / 124 237 / 409 42 / 85	215 / 180 464 / 789 154 / 141

26

112 / 79 0 / 1 **N Shirk St**	1 / 1 5 / 5 **Shannon Pkwy**
	61 / 108 2 / 12

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- City/County Limits
- Sphere of Influence



Shirk Capacity Enhancement CIP

Under the Near-Term (2025) Conditions, it is assumed that the City's CIP, the Shirk Capacity Enhancement project would be completed. Improvements include the widening of N Shirk St, between W School Ave and W Oriole Ave, from two to four lanes. The following summarizes the improvements at the study area intersections:

- N Shirk St & W Hurley Ave
  - Provide additional northbound thru lane by restriping the south leg from an exclusive right-turn lane to a shared thru/right-turn lane
  - Provide additional southbound thru lane
- N Shirk St & W Goshen Ave
  - Provide additional northbound and southbound thru lanes
- N Shirk St & W Doe Ave
  - Provide northbound/southbound left-turn pockets, additional thru lanes and right-turn pockets
  - Provide eastbound right-turn pocket
  - Signalize intersection
- N Shirk St & W Sunnyview Ave/Ferguson Ave
  - Provide northbound/southbound left-turn pockets, additional thru lanes and right-turn pockets

Visalia Logistics Center II (SPR 20-185)

Under the Near-Term (2025) Conditions, it is assumed that the Visalia Logistics Center II (SPR 20-185) project would be constructed on the southeast corner of N Plaza Drive & Avenue 320, and would include the following off-site improvements within the study area:

- N Plaza Dr & Avenue 320
  - Provide northbound right-turn pocket
  - Signalize intersection

Mid-Valley Logistics Center

Under the Near-Term (2025) Conditions, it is assumed that the Mid-Valley Logistics Center project would be constructed on the Private Access Rd, west of N Plaza Dr, and would include the following off-site improvements within the study area:

- N Plaza Dr & Private Access Rd
  - Provide northbound left-turn pocket
  - Provide southbound left-turn and right-turn pockets
  - Provide eastbound left-turn pocket and through/right-turn lane
  - Signalize intersection

Carlton Acres Specific Plan – Phase 1 (SPR 22-071/073)

Under the Near-Term (2025) Conditions, it is assumed that the Carlton Acres Specific Plan – Phase 1 (SPR 22-071/073) project would be constructed northeast of the N Shirk St & W Riggin Ave intersection. This phase of development would include a large commercial component, including a proposed Costco retail center, gas station and car wash. This phase of development would construct the east half of N Shirk St

(between W Shannon Pkwy and W Riggin Ave) and north half of W Riggin Ave (between N Shirk Street and east of N Denton St) to a 4-lane Arterial. To facilitate Costco's expected circulation, the development team coordinated with Applicant and obtained permission to install a full-access, signalized driveway along N Shirk St, at the midpoint between W Sedona Ave and W Riggin Ave. Following this coordination, the proposed project agreed to relocate the southernmost driveway along N Shirk Street (Driveway 19) to align with this driveway. These frontage improvements would include the following off-site improvements within the study area:

- N Shirk St & W Sedona Ave
    - Provide additional northbound thru lane and a right-turn pocket
    - Provide southbound left-turn pocket
    - Provide westbound right-turn lane (outbound left-turn restricted)
- N Shirk St & Driveway 19
    - Provide additional northbound thru lane and a right-turn pocket
    - Provide southbound left-turn pocket
    - Provide westbound left-turn pocket and through/right-turn lane
    - Signalize intersection

Tulare County Improvements

Under the Near-Term (2025) Conditions, the intersection conditions for N Shirk Street & Avenue 320 were updated to reflect the installation of stop signs along Avenue 320 to provide an all-way stop control. These improvements were completed after the survey of existing conditions and traffic data collection that occurred in June 2022.

Near-Term (2025) transportation conditions are shown on **Figure 22**. **Appendix H** contains concept drawings of improvements described above.

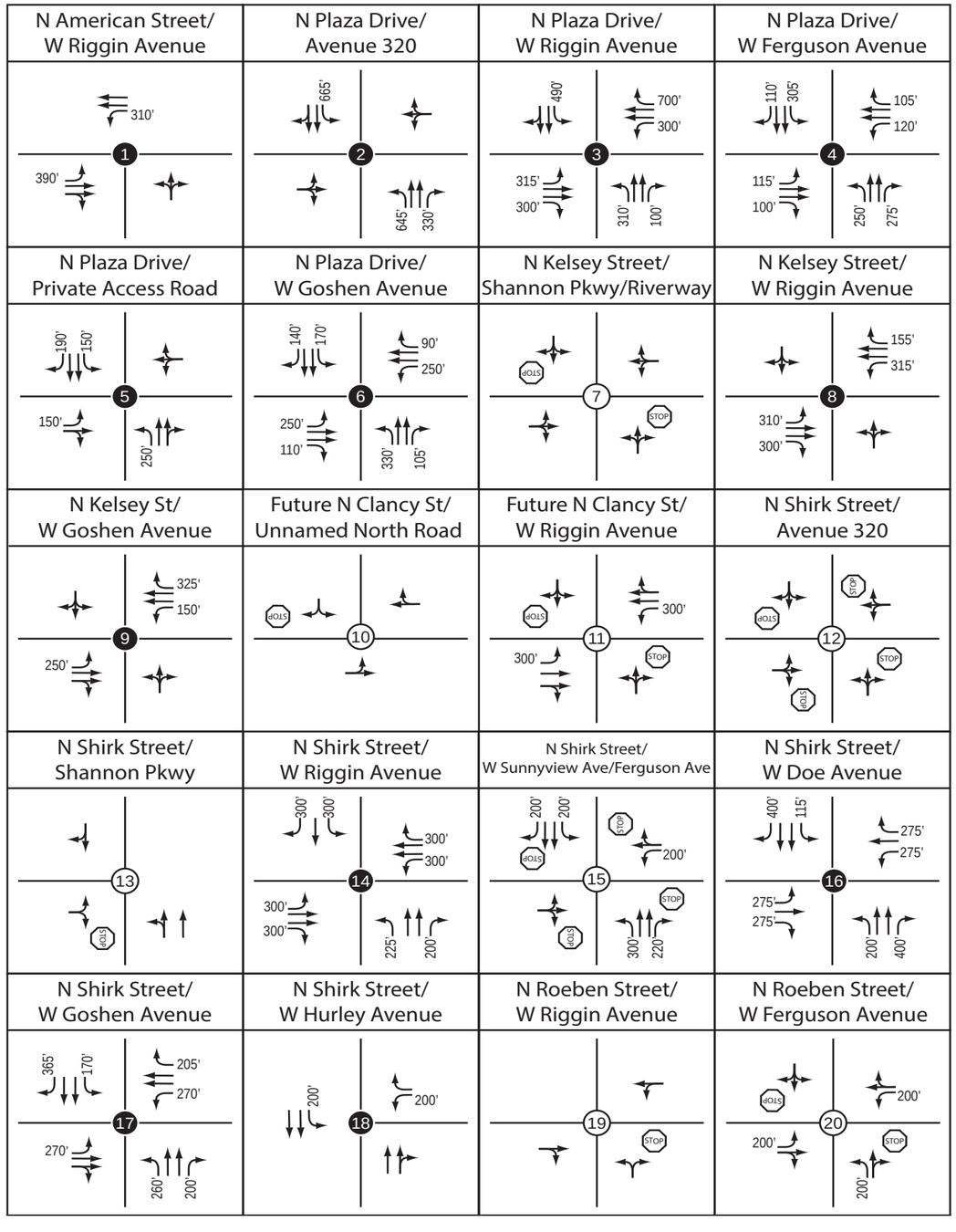
Near-Term (2025) Level of Service

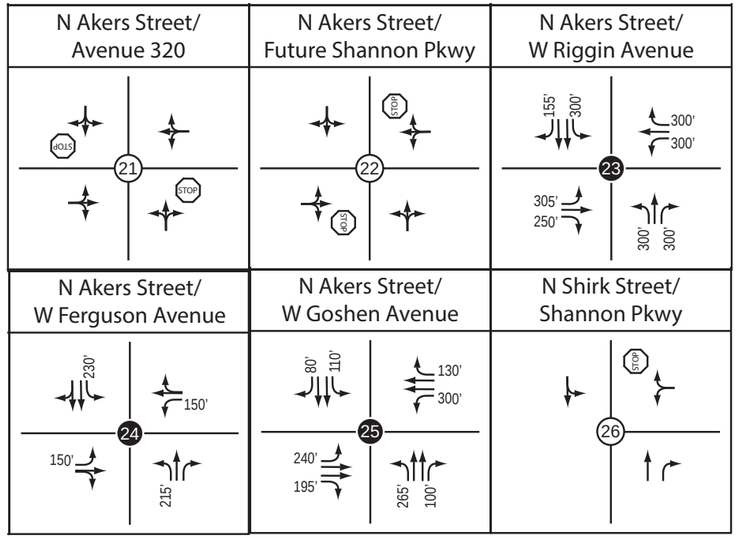
Table 9 displays the intersection LOS analysis results under Near-Term (2025) Conditions, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

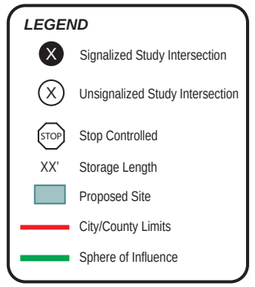
- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – PM peak)
- Intersection #19 – N Roeben Street & W Riggin Ave (LOS F – AM peak and PM peak)
- Intersection #23 – N Akers St & W Riggin Ave (LOS E – AM peak / LOS F – PM peak)

Appendix G contains the intersection LOS calculation worksheets.

FIGURE 22 NEAR TERM (2025) TRANSPORTATION CONDITIONS







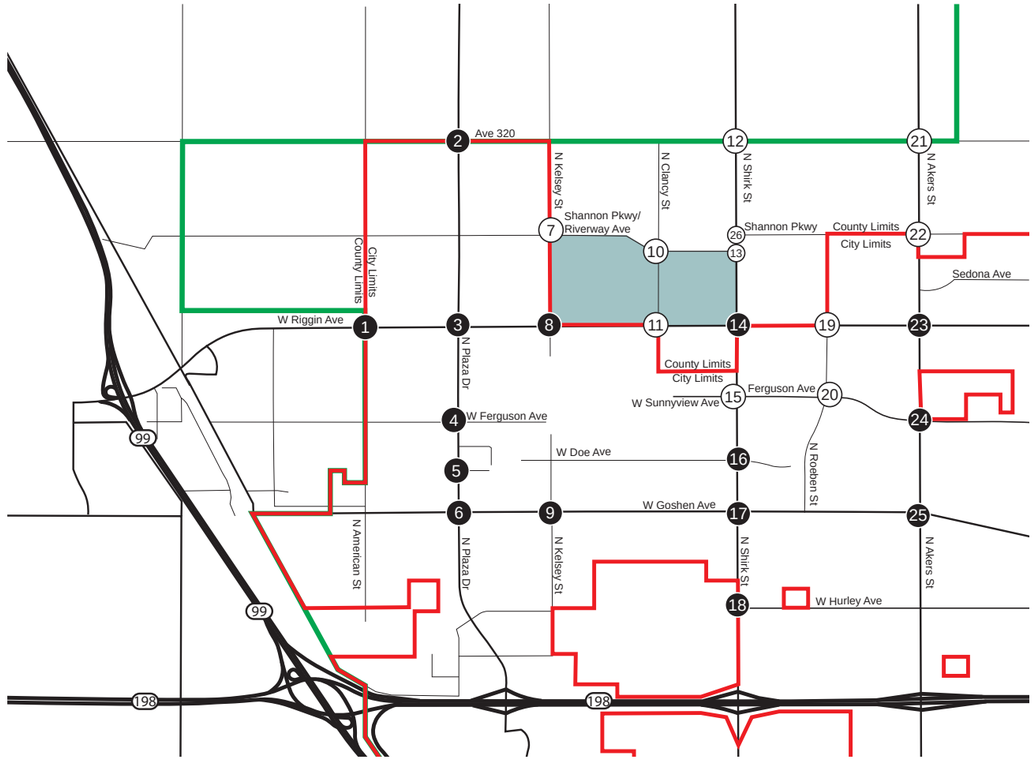


TABLE 10 NEAR-TERM (2025) INTERSECTION LEVEL OF SERVICE SUMMARY

NEAR-TERM (2025)
INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	JURISDICTION	TRAFFIC CONTROL	PEAK HOUR	NEAR-TERM (2025) CONDITIONS		NEAR-TERM (2025) CONDITIONS PLUS PHASE 1		
					DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (Δ)
1	N American St & W Riggin Ave	City/County	Signal	AM	10.9	B	11.5	B	0.6
				PM	11.8	B	12.3	B	0.5
2	N Plaza Drive & Avenue 320	City/County	Signal	AM	11.9	B	12.5	B	0.6
				PM	11.2	B	12.0	B	0.8
3	N Plaza Drive & W Riggin Ave	City	Signal	AM	46.7	D	46.8	D	0.1
				PM	41.1	D	42.1	D	1.0
4	N Plaza Dr & W Ferguson Ave	City	Signal	AM	37.5	D	37.9	D	0.4
				PM	35.5	D	36.4	D	0.9
5	N Plaza Dr & Private Access Road	City	Signal	AM	52.1	D	51.6	D	-0.5
				PM	15.9	B	17.1	B	1.2
6	N Plaza Dr & W Goshen Ave	City	Signal	AM	45.6	D	48.8	D	3.2
				PM	47.0	D	49.3	D	2.3
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	City/County	Two-Way Stop	AM	11.9	B	13.4	B	1.5
				PM	7.3	A	7.3	A	0.0
8	N Kelsey St & W Riggin Ave	City/County	Signal	AM	9.2	A	10.4	B	1.2
				PM	11.2	B	11.7	B	0.5
9	N Kelsey St & W Goshen Ave	City	Signal	AM	20.6	C	21.2	C	0.6
				PM	31.0	C	32.4	C	1.4
10	Future N Clancy St & Unnamed North Road	County	One-Way Stop	AM	8.8	A	9.2	A	0.4
				PM	0.0	A	0.0	A	0.0
11	Future N Clancy St & W Riggin Ave	City/County	Two-Way Stop/Signal	AM	14.4	B	13.3	B	-1.1
				PM	22.6	C	16.8	B	-5.8
12	N Shirk St & Avenue 320	County	All-Way Stop	AM	8.7	A	9.0	A	0.3
				PM	8.7	A	8.9	A	0.2
13	N Shirk St & Shannon Pkwy	County	Two-Way Stop	AM	10.4	B	9.7	A	-0.7
				PM	0.0	A	9.0	A	9.0
14	N Shirk St & W Riggin Ave	City/County	Signal	AM	16.7	B	20.6	C	3.9
				PM	23.7	C	25.0	C	1.3
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	City	All-Way Stop	AM	15.4	C	23.5	C	8.1
				PM	106.0	**F**	176.5	**F**	70.5
16	N Shirk St & W Doe Ave	City	Signal	AM	18.7	B	18.7	B	0.0
				PM	17.4	B	18.1	B	0.7
17	N Shirk St & W Goshen Ave	City	Signal	AM	35.5	D	36.4	D	0.9
				PM	33.9	C	36.7	D	2.8
18	N Shirk St & W Hurley Ave	City/County	Signal	AM	18.9	B	20.4	C	1.5
				PM	15.3	B	15.3	B	0.0
19	N Roeben St & W Riggin Ave	City/County	One-Way Stop	AM	87.6	**F**	ECL	**F**	>5.0
				PM	61.2	**F**	104.7	**F**	43.5
20	N Roeben St & W Ferguson Ave	City	Two-Way Stop	AM	13.7	B	14.4	B	0.7
				PM	14.5	B	15.2	C	0.7
21	N Akers St & Avenue 320	County	Two-Way Stop	AM	9.7	A	10.1	B	0.4
				PM	9.7	A	10.0	B	0.3
22	N Akers St & Future Shannon Parkway	County	Two-Way Stop	AM	0.0	A	9.3	A	9.3
				PM	9.4	A	9.4	A	0.0
23	N Akers St & W Riggin Ave	City	Signal	AM	56.6	**E**	65.0	**E**	8.4
				PM	158.8	**F**	157.5	**F**	-1.3
24	N Akers St & W Ferguson Ave	City/County	Signal	AM	50.3	D	52.2	D	1.9
				PM	38.1	D	38.4	D	0.3
25	N Akers St & W Goshen Ave	City	Signal	AM	48.6	D	48.7	D	0.1
				PM	40.3	D	41.4	D	1.1
26	N Shirk St & Shannon Parkway	County	Two-Way Stop	AM	9.9	A	10.1	B	0.2
				PM	9.7	A	9.8	A	0.1

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Editio*n and performed using Synchro 11.0
City - City of Visalia
County - Tulare County

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Near-Term (2025) Plus Phase 1 Lane Configuration and Control

The proposed project would construct the following improvements adjacent to the project site, described in further detail in Section 3 – Project Description, Proposed Off-Site Roadway Improvements:

- W Riggin Avenue
  - Construct and signalize intersection at N Clancy Street
- N Kelsey Street
  - Construct roadway, sidewalk, parkway, and five (5) access driveways along east side of N Kelsey Street (approximately half-mile).
- N Clancy Street
  - Construct sidewalk, parkway, and four (4) driveway access on west side of N Clancy Street (approximately 2,050-feet)
  - Construct west half of the roadway

Near-Term (2025) Plus Phase 1 Level of Service

Near-Term (2025) Plus Project volumes are shown on **Figure 23**, and were determined by adding the Phase 1 Project Trip Assignment to the Near-Term (2025) Traffic Volumes. **Table 9** displays the intersection LOS analysis results under Near-Term (2025) Conditions Plus Phase 1, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – PM peak)
- Intersection #19 – N Roeben Street & W Riggin Ave (LOS F – AM and PM peak)
- Intersection #23 – N Akers St & W Riggin Ave (LOS E – AM peak / LOS F – PM peak)

Appendix G contains the intersection LOS calculation worksheets.

FIGURE 23 NEAR-TERM (2025) PLUS PHASE 1 PEAK HOUR TURNING MOVEMENT VOLUMES

1

W Riggin Ave: 684 / 784 ; 21 / 68
N American St: 37 / 38 ; 809 / 783 ; 7 / 3 ; 4 / 11 ; 57 / 37

2

N Plaza Dr: 1 / 0 ; 630 / 485 ; 85 / 73
Avenue 320: 100 / 66 ; 59 / 60 ; 103 / 86
1 / 1 ; 62 / 61 ; 36 / 17 ; 11 / 43 ; 438 / 718 ; 106 / 100

3

N Plaza Dr: 259 / 259 ; 515 / 432 ; 61 / 101
W Riggin Ave: 92 / 122 ; 384 / 398 ; 196 / 204
248 / 272 ; 348 / 432 ; 247 / 116 ; 81 / 206 ; 428 / 664 ; 163 / 192

4

N Plaza Dr: 106 / 48 ; 855 / 786 ; 4 / 3
W Ferguson Ave: 0 / 10 ; 11 / 38
18 / 104 ; 0 / 1 ; 58 / 158 ; 180 / 93 ; 728 / 894 ; 13 / 21

5

N Plaza Dr: 168 / 32 ; 792 / 1040 ; 5 / 1
Private Access Road: 1 / 3 ; 1 / 6
Driveway: 20 / 149 ; 32 / 252 ; 282 / 61 ; 927 / 867 ; 19 / 3

6

N Plaza Dr: 50 / 101 ; 595 / 889 ; 184 / 260
W Goshen Ave: 230 / 189 ; 136 / 155 ; 61 / 82
96 / 98 ; 167 / 231 ; 218 / 233 ; 181 / 161 ; 926 / 695 ; 69 / 61

7

N Kelsey St: 56 / 56 ; 170 / 192
Shannon Pkwy/Riverway: 1 / 0 ; 29 / 10
57 / 57 ; 16 / 22 ; 20 / 19 ; 168 / 227 ; 9 / 28

8

N Kelsey St: 41 / 180 ; 59 / 70 ; 87 / 187
W Riggin Ave: 171 / 146 ; 563 / 430 ; 26 / 15
142 / 94 ; 394 / 581 ; 32 / 16 ; 13 / 35 ; 70 / 64 ; 11 / 25

9

N Kelsey St: 41 / 98 ; 72 / 155 ; 87 / 172
W Goshen Ave: 149 / 59 ; 368 / 262 ; 134 / 60
75 / 31 ; 285 / 403 ; 50 / 45 ; 38 / 42 ; 140 / 54 ; 67 / 120

10

Future N Clancy St: 3 / 4 ; 2 / 0
Unnamed North Road: 28 / 8
8 / 27 ; 7 / 3

11

Future N Clancy St: 24 / 81 ; 2 / 5 ; 61 / 209
W Riggin Ave: 208 / 67 ; 712 / 531 ; 4 / 6
82 / 25 ; 356 / 788 ; 8 / 7 ; 8 / 9 ; 5 / 2 ; 2 / 7

12

N Shirk St: 8 / 7 ; 57 / 33 ; 2 / 6
Avenue 320: 4 / 2 ; 108 / 21 ; 41 / 19
5 / 9 ; 66 / 128 ; 30 / 28 ; 17 / 14 ; 31 / 86 ; 12 / 41

13

N Shirk St: 133 / 89
Shannon Pkwy
1 / 0 ; 8 / 27 ; 27 / 8 ; 67 / 136

14

N Shirk St: 42 / 46 ; 142 / 305 ; 17 / 114
W Riggin Ave: 43 / 192 ; 582 / 387 ; 112 / 180
27 / 111 ; 309 / 633 ; 163 / 310 ; 332 / 190 ; 120 / 359 ; 64 / 171

15

N Shirk St: 25 / 4 ; 378 / 722 ; 69 / 121
W Sunnyview Ave: 98 / 95 ; 21 / 2 ; 135 / 68 ; Ferguson Ave
5 / 54 ; 2 / 36 ; 23 / 88 ; 60 / 35 ; 414 / 588 ; 72 / 100

16

N Shirk St: 113 / 50 ; 419 / 815 ; 2 / 5
W Doe Ave: 6 / 2 ; 27 / 8 ; 201 / 55
35 / 115 ; 2 / 10 ; 40 / 206 ; 177 / 68 ; 480 / 609 ; 43 / 88

17

N Shirk St: 128 / 100 ; 530 / 851 ; 70 / 145
W Goshen Ave: 106 / 103 ; 368 / 219 ; 80 / 46
53 / 151 ; 202 / 414 ; 176 / 236 ; 214 / 107 ; 618 / 527 ; 98 / 78

18

N Shirk St: 503 / 1032 ; 26 / 87
W Hurley Ave: 59 / 76 ; 67 / 32
878 / 716 ; 33 / 80

19

W Riggin Ave: 789 / 1033 ; 83 / 34
N Roeben St: 419 / 944 ; 11 / 70 ; 68 / 11 ; 82 / 37

20

N Roeben St: 15 / 5 ; 6 / 11 ; 25 / 16
W Ferguson Ave: 8 / 33 ; 202 / 138 ; 41 / 58
10 / 16 ; 109 / 211 ; 4 / 8 ; 7 / 3 ; 10 / 12 ; 43 / 58

21

N Akers St: 0 / 1 ; 0 / 1
Avenue 320: 1 / 1 ; 89 / 39 ; 54 / 41
39 / 103 ; 16 / 31 ; 26 / 27 ; 1 / 0 ; 24 / 52

22

N Akers St: 72 / 69 ; 2 / 5
Future Shannon Pkwy: 5 / 2 ; 11 / 4
50 / 77 ; 3 / 11

23

N Akers St: 135 / 83 ; 321 / 69 ; 178 / 35
W Riggin Ave: 169 / 85 ; 606 / 556 ; 184 / 106
135 / 58 ; 293 / 679 ; 78 / 268 ; 130 / 361 ; 248 / 213 ; 146 / 178

24

N Akers St: 71 / 30 ; 554 / 306 ; 43 / 34
W Ferguson Ave: 51 / 33 ; 173 / 131 ; 240 / 102
62 / 33 ; 112 / 140 ; 256 / 130 ; 149 / 210 ; 366 / 486 ; 113 / 239

25

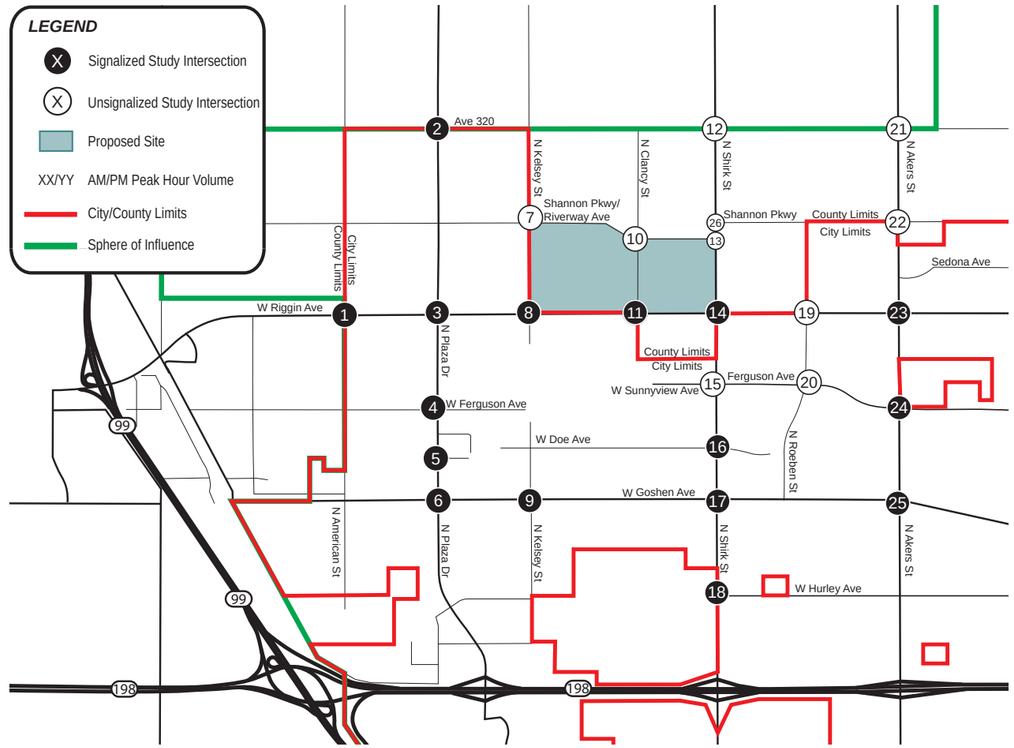
N Akers St: 94 / 64 ; 722 / 433 ; 300 / 224
W Goshen Ave: 145 / 218 ; 283 / 229 ; 159 / 105
47 / 124 ; 240 / 420 ; 42 / 85 ; 215 / 180 ; 475 / 792 ; 154 / 141

26

N Shirk St: 128 / 84 ; 0 / 1
Shannon Pkwy: 1 / 1 ; 5 / 5
66 / 124 ; 2 / 12

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- City/County Limits
- Sphere of Influence



NEAR-TERM (2026) CONDITIONS

Near-Term (2026) Conditions were evaluated because this represents the opening year of Phase 2 of the proposed project, which is assumed to occur in 2026.

Near-Term (2026) Traffic Volumes

Near-Term (2026) traffic volumes were developed similar to the Near-Term (2025) traffic volumes, by applying a 2 percent annual growth rate (8 percent total) to Existing (2022) traffic volumes and adding traffic generated by cumulative projects within the study area. The same cumulative project traffic identified in Table 8 was included since there are no additional projects expected to be completed between Near-Term (2025) and Near-Term (2026) Conditions. Near-Term (2026) peak hour turning movement volumes are presented on **Figure 24**.

Near-Term (2026) Lane Configuration and Control

Under Near-Term (2026) Conditions, no roadway improvements were assumed to occur between Near-Term (2025) Conditions and Near-Term (2026) Conditions. Therefore, only the Near-Term (2025) transportation conditions was assumed, as shown on **Figure 22**.

Near-Term (2026) Level of Service

Table 10 displays the intersection LOS analysis results under Near-Term (2026) Conditions, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – PM peak)*
- Intersection #19 – N Roeben Street & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS E – AM peak / LOS F – PM peak)*

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term (2025) Conditions.

FIGURE 24 NEAR-TERM (2026) PEAK HOUR TURNING MOVEMENT VOLUMES

1

		⇦ 679 / 739 ⇖ 18 / 58 W Riggin Ave
38 / 39 765 / 777 8 / 3 N American St	4 / 11	46 / 35

2

1 / 0 641 / 494 59 / 66 N Plaza Dr		⇦ 94 / 40 ⇦ 59 / 60 ⇖ 103 / 86 Avenue 320
1 / 1 62 / 61 36 / 17		11 / 43 446 / 731 107 / 100

3

263 / 262 522 / 438 62 / 102 N Plaza Dr		⇦ 93 / 123 ⇦ 371 / 338 ⇖ 171 / 113 W Riggin Ave
251 / 276 287 / 418 249 / 118		82 / 207 434 / 674 71 / 165

4

106 / 48 839 / 704 4 / 3 N Plaza Dr		⇦ 0 / 10 ⇖ 12 / 38 W Ferguson Ave
18 / 104 0 / 1 59 / 159		182 / 94 644 / 878 14 / 21

5

168 / 32 777 / 961 5 / 1 N Plaza Dr		⇦ 1 / 3 ⇖ 1 / 6 Private Access Road
20 / 149 32 / 252		282 / 61 845 / 851 19 / 3

6

49 / 96 580 / 818 184 / 257 N Plaza Dr		⇦ 227 / 189 ⇦ 139 / 158 ⇖ 63 / 83 W Goshen Ave
91 / 98 170 / 235 222 / 237		184 / 163 854 / 680 70 / 63

7

56 / 56 121 / 179 N Kelsey St		⇦ 1 / 0 ⇖ 2 / 2 Shannon Pkwy/Riverway
57 / 57 5 / 19		17 / 8 155 / 179 1 / 1

8

17 / 100 57 / 65 64 / 112 N Kelsey St		⇦ 95 / 124 ⇦ 548 / 358 ⇖ 24 / 10 W Riggin Ave
62 / 70 322 / 565 33 / 16		13 / 35 65 / 62 6 / 24

9

42 / 100 70 / 146 88 / 175 N Kelsey St		⇦ 151 / 59 ⇦ 373 / 266 ⇖ 134 / 55 W Goshen Ave
76 / 31 289 / 409 49 / 40		34 / 40 131 / 51 63 / 119

10

3 / 4 2 / 0 Future N Clancy St		⇦ 1 / 0 Unnamed North Road
		8 / 3

11

0 / 3 Future N Clancy St		⇦ 0 / 4 ⇦ 649 / 514 ⇖ 4 / 6 W Riggin Ave
339 / 726 6 / 2		3 / 7 2 / 7

12

8 / 7 58 / 33 2 / 6 N Shirk St		⇦ 4 / 2 ⇦ 99 / 18 ⇖ 26 / 14 Avenue 320
5 / 9 64 / 119 30 / 28		17 / 14 31 / 88 7 / 25

13

119 / 85 N Shirk St		Shannon Pkwy
1 / 0		63 / 121

14

26 / 41 136 / 279 18 / 114 N Shirk St		⇦ 43 / 192 ⇦ 490 / 361 ⇖ 113 / 180 W Riggin Ave
22 / 95 284 / 542 117 / 148		170 / 142 93 / 352 65 / 173

15

26 / 4 336 / 568 60 / 88 N Shirk St		⇦ 66 / 85 ⇦ 22 / 2 ⇖ 138 / 69 Ferguson Ave
5 / 55 2 / 37 24 / 90 W Sunnyview Ave		62 / 36 257 / 544 73 / 102

16

112 / 40 381 / 674 2 / 5 N Shirk St		⇦ 6 / 2 ⇦ 27 / 9 ⇖ 205 / 56 W Doe Ave
25 / 114 2 / 10 41 / 210		180 / 69 336 / 568 44 / 90

17

127 / 95 499 / 729 67 / 136 N Shirk St		⇦ 97 / 100 ⇦ 373 / 221 ⇖ 81 / 46 W Goshen Ave
49 / 151 205 / 419 179 / 239		217 / 108 494 / 491 99 / 80

18

471 / 913 26 / 88 N Shirk St		⇦ 60 / 77 ⇖ 68 / 32 W Hurley Ave
		757 / 684 33 / 81

19

		⇦ 705 / 1010 ⇖ 84 / 35 W Riggin Ave
397 / 860 10 / 65 N Roeben St		63 / 9 83 / 38

20

15 / 5 6 / 11 26 / 16 N Roeben St		⇦ 9 / 33 ⇦ 178 / 132 ⇖ 42 / 59 W Ferguson Ave
10 / 16 102 / 188 2 / 3		2 / 1 10 / 12 44 / 59

21

0 / 1 0 / 1 N Akers St		⇦ 1 / 1 68 / 32 ⇖ 54 / 42 Avenue 320
33 / 82 14 / 27		21 / 26 1 / 0 24 / 53

22

73 / 69 N Akers St		⇦ 0 / 1 Future Shannon Pkwy
		51 / 78

23

126 / 80 327 / 70 181 / 35 N Akers St		⇦ 172 / 86 ⇦ 543 / 539 ⇖ 188 / 108 W Riggin Ave
135 / 47 276 / 616 75 / 258		120 / 358 252 / 216 149 / 181

24

72 / 31 561 / 300 44 / 34 N Akers St		⇦ 52 / 34 ⇦ 165 / 131 ⇖ 244 / 104 W Ferguson Ave
64 / 34 111 / 131 256 / 117		135 / 208 361 / 490 116 / 243

25

95 / 65 732 / 430 301 / 212 N Akers St		⇦ 131 / 216 ⇦ 275 / 229 ⇖ 162 / 107 W Goshen Ave
48 / 126 240 / 415 43 / 86		219 / 183 472 / 803 157 / 144

26

114 / 80 0 / 1 N Shirk St		⇦ 1 / 1 ⇖ 5 / 5 Shannon Pkwy
		62 / 109 2 / 12

LEGEND

- (X) Signalized Study Intersection
- (X) Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

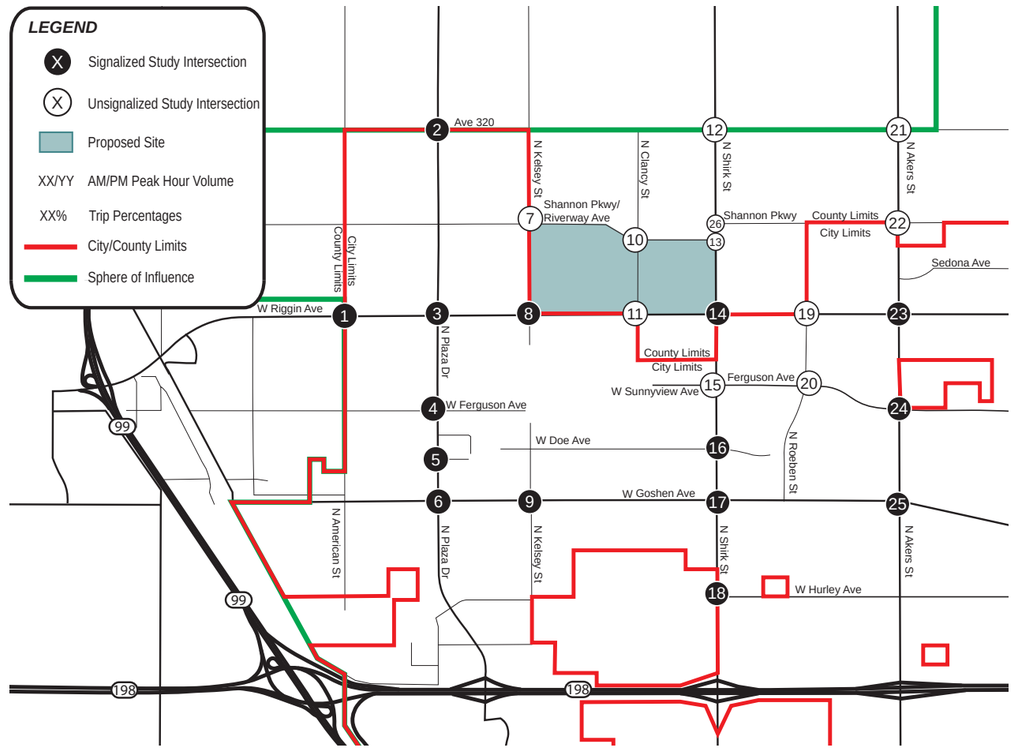


TABLE 11 NEAR-TERM (2026) INTERSECTION LEVEL OF SERVICE SUMMARY

NEAR-TERM (2026)
INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	JURISDICTION	TRAFFIC CONTROL	PEAK HOUR	NEAR-TERM (2026) CONDITIONS		NEAR-TERM (2026) CONDITIONS PLUS PHASE 2		
					DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (Δ)
1	N American St & W Riggin Ave	City/County	Signal	AM	11.0	B	12.0	B	1.0
				PM	11.9	B	12.7	B	0.8
2	N Plaza Drive & Avenue 320	City/County	Signal	AM	12.0	B	12.9	B	0.9
				PM	11.2	B	12.5	B	1.3
3	N Plaza Drive & W Riggin Ave	City	Signal	AM	47.7	D	48.1	D	0.4
				PM	41.9	D	44.2	D	2.3
4	N Plaza Dr & W Ferguson Ave	City	Signal	AM	38.1	D	39.3	D	1.2
				PM	35.7	D	37.4	D	1.7
5	N Plaza Dr & Private Access Road	City	Signal	AM	52.4	D	52.2	D	-0.2
				PM	16.0	B	18.1	B	2.1
6	N Plaza Dr & W Goshen Ave	City	Signal	AM	46.2	D	51.5	D	5.3
				PM	47.7	D	51.8	D	4.1
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	City/County	Two-Way Stop	AM	11.9	B	13.4	B	1.5
				PM	7.3	A	14.1	B	6.8
8	N Kelsey St & W Riggin Ave	City/County	Signal	AM	9.2	A	10.6	B	1.4
				PM	11.2	B	12.5	B	1.3
9	N Kelsey St & W Goshen Ave	City	Signal	AM	20.8	C	21.9	C	1.1
				PM	31.9	C	34.1	C	2.2
10	Future N Clancy St & Unnamed North Road	County	One-Way Stop	AM	8.8	A	9.2	A	0.4
				PM	0.0	A	0.0	A	0.0
11	Future N Clancy St & W Riggin Ave	City/County	Two-Way Stop/Signal	AM	14.5	B	15.2	B	0.7
				PM	22.8	C	16.9	B	-5.9
12	N Shirk St & Avenue 320	County	All-Way Stop	AM	8.7	A	9.3	A	0.6
				PM	8.7	A	9.2	A	0.5
13	N Shirk St & Shannon Pkwy	County	Two-Way Stop	AM	10.5	B	9.9	A	-0.6
				PM	0.0	A	9.0	A	9.0
14	N Shirk St & W Riggin Ave	City/County	Signal	AM	16.9	B	24.4	C	7.5
				PM	23.9	C	28.6	C	4.7
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	City	All-Way Stop	AM	15.7	C	42.6	**E**	26.9
				PM	110.3	**F**	ECL	**F**	>5.0
16	N Shirk St & W Doe Ave	City	Signal	AM	18.9	B	18.9	B	0.0
				PM	17.7	B	19.0	B	1.3
17	N Shirk St & W Goshen Ave	City	Signal	AM	35.9	D	38.0	D	2.1
				PM	34.2	C	39.0	D	4.8
18	N Shirk St & W Hurley Ave	City/County	Signal	AM	19.0	B	21.7	C	2.7
				PM	15.3	B	15.4	B	0.1
19	N Roeben St & W Riggin Ave	City/County	One-Way Stop	AM	94.2	**F**	ECL	**F**	>5.0
				PM	63.8	**F**	169.7	**F**	105.9
20	N Roeben St & W Ferguson Ave	City	Two-Way Stop	AM	13.9	B	15.2	C	1.3
				PM	14.6	B	15.9	C	1.3
21	N Akers St & Avenue 320	County	Two-Way Stop	AM	9.7	A	10.3	B	0.6
				PM	9.7	A	10.2	B	0.5
22	N Akers St & Future Shannon Parkway	County	Two-Way Stop	AM	0.0	A	9.4	A	9.4
				PM	9.4	A	9.4	A	0.0
23	N Akers St & W Riggin Ave	City	Signal	AM	58.5	**E**	75.2	**E**	16.7
				PM	158.2	**F**	158.5	**F**	0.3
24	N Akers St & W Ferguson Ave	City/County	Signal	AM	51.5	D	55.2	**E**	3.7
				PM	38.4	D	39.0	D	0.6
25	N Akers St & W Goshen Ave	City	Signal	AM	49.6	D	49.9	D	0.3
				PM	41.0	D	42.8	D	1.8
26	N Shirk St & Shannon Parkway	County	Two-Way Stop	AM	10.0	B	10.5	B	0.5
				PM	9.7	A	10.0	B	0.3

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Editio*n and performed using Synchro 11.0
City - City of Visalia
County - Tulare County

K:\SND_TPTO\195170025_Project Ritchie\ANALYSIS\EXCEL\[Shirk and Riggin Industrial Park_IN01.xlsm]2026 WP

Near-Term (2026) Plus Phase 2 Lane Configuration and Control

The proposed project would construct the following improvements adjacent to the project site, described in further detail in Section 3 – Project Description, Proposed Off-Site Roadway Improvements:

- W Riggin Avenue
  - Construct sidewalk, parkway, and one (1) driveway access between N Kelsey Street and N Clancy Street (approximately half-mile)
  - Construct sidewalk, parkway, and one (1) driveway adjacent to commercial development near N Shirk Street intersection (approximately 600-feet)
- N Clancy Street
  - Construct sidewalk, parkway, and four (4) driveway access on east side of N Clancy Street (approximately 2,050-feet)
  - Construct east half of the roadway
- N Shirk Street
  - Construct roadway, sidewalk, parkway, and one (1) driveway adjacent to commercial development near W Riggin Avenue intersection (approximately 900-feet)
  - Construct west half of the roadway

Near-Term (2026) Plus Phase 2 Level of Service

Near-Term (2026) Plus Project volumes are shown on **Figure 25**, and were determined by adding the Phase 2 Project Trip Assignment to the Near-Term (2026) Traffic Volumes. **Table 10** displays the intersection LOS analysis results under Near-Term (2026) Conditions Plus Phase 2, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS E – AM peak / LOS F – PM peak)*
- Intersection #19 – N Roeben Street & W Riggin Ave (LOS F – AM peak and PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS E – AM peak / LOS F – PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term (2025) Plus Phase 1 Conditions.

FIGURE 25 NEAR-TERM (2026) PLUS PHASE 2 PEAK HOUR TURNING MOVEMENT VOLUMES

1

		711 / 823
		25 / 75
		W Riggin Ave
38 / 39		
852 / 809		
8 / 3		
N American St		
4 / 11		64 / 41

2

1 / 0		
646 / 496		
98 / 80		
N Plaza Dr		
		107 / 78
		59 / 60
		103 / 86
		Avenue 320
1 / 1		
62 / 61		
36 / 17		
	11 / 43	
	449 / 735	
	107 / 100	

3

263 / 262		
522 / 438		
67 / 104		
N Plaza Dr		
	96 / 127	
	409 / 440	
	225 / 258	
	W Riggin Ave	
251 / 276		
391 / 456		
249 / 118		
	82 / 207	
	434 / 674	
	219 / 218	

4

106 / 48		
893 / 849		
4 / 3		
N Plaza Dr		
	0 / 10	
	12 / 38	
	W Ferguson Ave	
18 / 104		
0 / 1		
59 / 159		
	182 / 94	
	792 / 931	
	14 / 21	

5

168 / 32		
831 / 1106		
5 / 1		
N Plaza Dr		
	1 / 3	
	1 / 6	
	Private Access Road	
Driveway		
20 / 149		
32 / 252		
	282 / 61	
	993 / 904	
	19 / 3	

6

52 / 104		
627 / 945		
187 / 265		
N Plaza Dr		
	235 / 192	
	139 / 158	
	63 / 83	
	W Goshen Ave	
99 / 101		
170 / 235		
222 / 237		
	184 / 163	
	984 / 727	
	70 / 63	

7

56 / 56		
181 / 198		
2 / 1		
N Kelsey St		
	2 / 2	
	1 / 2	
	21 / 8	
	Shannon Pkwy/Riverway	
57 / 57		
2 / 1		
20 / 24		
	22 / 23	
	173 / 238	
	7 / 20	

8

45 / 195		
59 / 71		
95 / 203		
N Kelsey St		
	156 / 146	
	613 / 514	
	29 / 20	
	W Riggin Ave	
158 / 99		
483 / 629		
33 / 16		
	13 / 35	
	71 / 64	
	17 / 28	

9

42 / 100		
77 / 163		
88 / 175		
N Kelsey St		
	151 / 59	
	373 / 266	
	137 / 63	
	W Goshen Ave	
76 / 31		
289 / 409		
52 / 48		
	42 / 43	
	149 / 57	
	71 / 122	

10

3 / 4		
2 / 0		
Future N Clancy St		
	23 / 10	
	Unnamed North Road	
11 / 21		
	8 / 3	

11

57 / 127		
5 / 10		
80 / 223		
Future N Clancy St		
	226 / 84	
	738 / 550	
	4 / 6	
	W Riggin Ave	
133 / 56		
375 / 814		
8 / 8		
	9 / 9	
	11 / 4	
	2 / 7	

12

8 / 7		
58 / 33		
2 / 6		
N Shirk St		
	4 / 2	
	112 / 22	
	56 / 26	
	Avenue 320	
5 / 9		
68 / 132		
37 / 32		
	21 / 20	
	31 / 88	
	19 / 55	

13

	156 / 101	
	N Shirk St	
	Shannon Pkwy	
1 / 0		
11 / 21		
	22 / 10	
	79 / 157	

14

29 / 45		
189 / 408		
58 / 158		
N Shirk St		
	50 / 196	
	639 / 414	
	113 / 180	
	W Riggin Ave	
63 / 129		
301 / 649		
176 / 315		
	352 / 206	
	215 / 397	
	65 / 173	

15

26 / 4		
428 / 814		
79 / 139		
N Shirk St		
	118 / 104	
	22 / 2	
	138 / 69	
W Sunnyview Ave	Ferguson Ave	
5 / 55		
2 / 37		
24 / 90		
	62 / 36	
	509 / 635	
	73 / 102	

16

119 / 57		
466 / 903		
2 / 5		
N Shirk St		
	6 / 2	
	27 / 9	
	205 / 56	
	W Doe Ave	
43 / 120		
2 / 10		
41 / 210		
	180 / 69	
	571 / 653	
	44 / 90	

17

130 / 103		
575 / 933		
74 / 153		
N Shirk St		
	115 / 106	
	373 / 221	
	81 / 46	
	W Goshen Ave	
57 / 154		
205 / 419		
179 / 239		
	217 / 108	
	703 / 567	
	99 / 80	

18

547 / 1117		
26 / 88		
N Shirk St		
	60 / 77	
	68 / 32	
	W Hurley Ave	
	966 / 760	
	33 / 81	

19

	853 / 1063	
	84 / 35	
	W Riggin Ave	
451 / 1005		
13 / 73		
N Roeben St		
71 / 12		
83 / 38		

20

15 / 5		
6 / 11		
26 / 16		
N Roeben St		
	9 / 33	
	221 / 148	
	42 / 59	
	W Ferguson Ave	
10 / 16		
117 / 231		
5 / 11		
	10 / 4	
	10 / 12	
	44 / 59	

21

0 / 1		
0 / 1		
N Akers St		
	1 / 1	
	103 / 45	
	54 / 42	
	Avenue 320	
46 / 116		
17 / 35		
	29 / 29	
	1 / 0	
	24 / 53	

22

73 / 69		
3 / 8		
N Akers St		
	8 / 3	
	18 / 7	
	Future Shannon Pkwy	
	51 / 78	
	7 / 17	

23

144 / 86		
327 / 70		
181 / 35		
N Akers St		
	172 / 86	
	656 / 579	
	188 / 108	
	W Riggin Ave	
142 / 64		
318 / 726		
82 / 275		
	138 / 364	
	252 / 216	
	149 / 181	

24

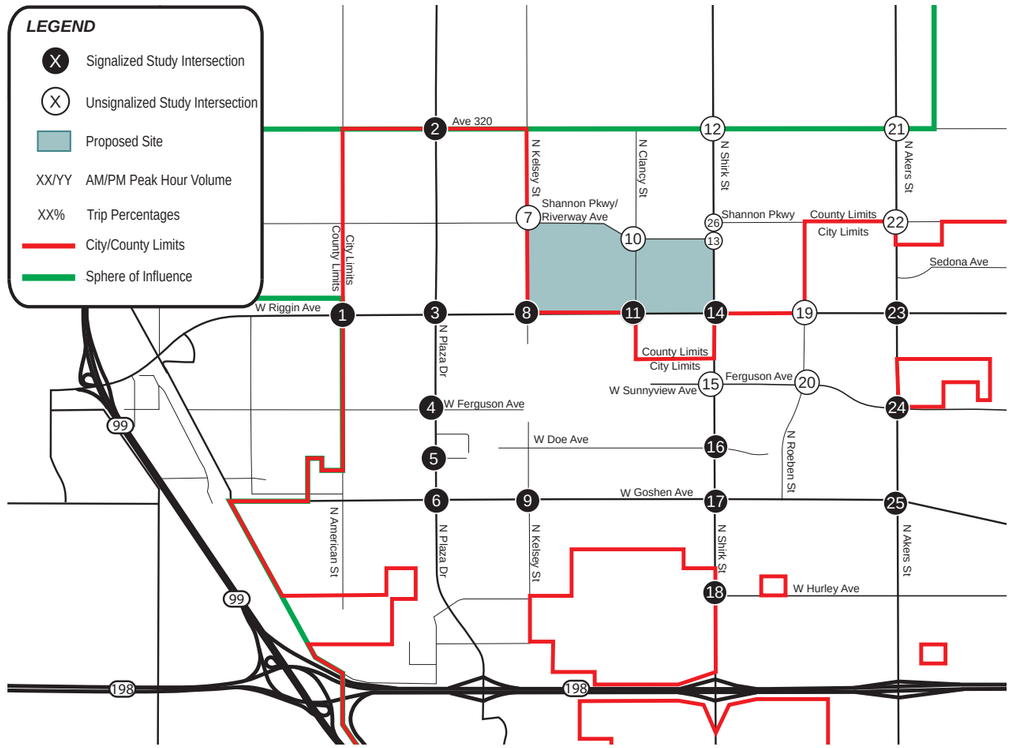
72 / 31		
568 / 317		
44 / 34		
N Akers St		
	52 / 34	
	183 / 137	
	244 / 104	
	W Ferguson Ave	
64 / 34		
118 / 148		
266 / 142		
	161 / 218	
	379 / 496	
	116 / 243	

25

95 / 65		
739 / 447		
311 / 237		
N Akers St		
	157 / 226	
	293 / 235	
	162 / 107	
	W Goshen Ave	
48 / 126		
247 / 432		
43 / 86		
	219 / 183	
	490 / 809	
	157 / 144	

26

151 / 96		
0 / 1		
N Shirk St		
	1 / 1	
	5 / 5	
	Shannon Pkwy	
	78 / 145	
	2 / 12	



NEAR-TERM (2028) CONDITIONS

Near-Term (2028) Conditions were evaluated because this represents the opening year of the full build-out of the proposed project, which is assumed to occur in 2028.

Near-Term (2028) Traffic Volumes

Near-Term (2028) traffic volumes were developed similar to the Near-Term (2025) traffic volumes, by applying a 2 percent annual growth rate (12 percent total) to Existing (2022) traffic volumes and adding traffic generated by cumulative projects within the study area. The same cumulative project traffic identified in Table 8 were included, with the addition of CASP – Phase 2 traffic summarized below.

Cumulative Project Assumed for Near-Term (2028) Conditions

Project	Project Description	Trip Generation	AM Peak	PM Peak	Status
*Carlton Acres Specific Plan – Phase 2 (SPR 22-071/073)	Portion of 507-AC Mixed Use Development	ITE (LU 210 & 220) – 4,598 ADT	67 IB / 201 OB	236 IB / 140 OB	Approved

*Trip generation, distribution and assignments obtained from development team.

Appendix H contains detailed information and calculations related to the development of cumulative traffic volumes, including documentation of trip generation/distribution/assignment assumptions. Near-Term (2028) peak hour turning movement volumes are presented on **Figure 26**.

Near-Term (2028) Lane Configuration and Control

The following roadway improvements were assumed to occur between Near-Term (2025) Conditions and Near-Term (2028) Conditions.

Carlton Acres Specific Plan – Phase 2 (SPR 22-071/073)

Under the Near-Term (2028) Conditions, it is assumed that the Carlton Acres Specific Plan – Phase 2 (SPR 22-071/073) project would be constructed northeast of the N Shirk St & W Shannon Pkwy intersection and adjacent to the N Roeben St & W Riggin Ave intersection. This development phase would construct the adjacent east half of N Shirk St (between W Pratt Ave and W Shannon Pkwy) and north half of W Riggin Ave (between east of N Denton St and west of N Akers St) to a 4-lane Arterial. These frontage improvements would include the following off-site improvements within the study area:

- N Roeben St & W Riggin Ave
  - Provide northbound/southbound left-turn pockets and through/right-turn lanes
  - Provide an eastbound/westbound left-turn pockets and additional thru lanes
  - Signalize intersection

Near-Term (2028) transportation conditions are shown on **Figure 27**.

FIGURE 26 NEAR-TERM (2028) PEAK HOUR TURNING MOVEMENT VOLUMES

1

		⇦ 703 / 755 ⇖ 20 / 60 **W Riggin Ave**
39 / 40 787 / 804 8 / 3 ⇦ ⇨ ⇙	**N American St**	4 / 11 ⇧ ⇗ 46 / 35

2

1 / 0 ⇖ 663 / 512 ⇩ 62 / 68 ⇘	**N Plaza Dr**	⇗ 97 / 41 ⇧ 59 / 60 ⇖ 105 / 87 **Avenue 320**
1 / 1 63 / 62 ⇨ 36 / 17 ⇘		11 / 43 ⇦ ⇧ ⇗ 462 / 756 108 / 101

3

270 / 269 ⇖ 537 / 450 ⇩ 64 / 105 ⇘	**N Plaza Dr**	⇗ 96 / 128 ⇧ 388 / 348 ⇖ 175 / 115 **W Riggin Ave**
257 / 284 ⇦ 298 / 435 ⇨ 253 / 121 ⇘		85 / 210 ⇦ ⇧ ⇗ 445 / 695 74 / 169

4

108 / 49 ⇖ 861 / 723 ⇩ 4 / 3 ⇘	**N Plaza Dr**	⇗ 0 / 10 ⇖ 12 / 39 **W Ferguson Ave**
20 / 107 ⇦ 0 / 1 ⇨ 60 / 161 ⇘		184 / 95 ⇦ ⇧ ⇗ 663 / 900 14 / 22

5

168 / 32 800 / 986 ⇩ 6 / 1 ⇘	**N Plaza Dr**	⇗ 1 / 3 ⇖ 1 / 7 **Private Access Road**
Driveway 20 / 149 ⇦ 32 / 252 ⇙		282 / 61 ⇦ ⇧ ⇗ 868 / 874 20 / 3

6

51 / 98 598 / 837 ⇩ 188 / 261 ⇘	**N Plaza Dr**	⇗ 230 / 192 ⇦ 144 / 163 ⇖ 65 / 86 **W Goshen Ave**
92 / 100 ⇦ 176 / 243 ⇨ 229 / 245 ⇙		190 / 169 ⇦ ⇧ ⇗ 873 / 699 73 / 65

7

56 / 56 121 / 181 ⇩	**N Kelsey St**	⇗ 1 / 0 ⇖ 2 / 2 **Shannon Pkwy/Riverway**
57 / 57 ⇦ 5 / 19 ⇙		17 / 8 ⇦ ⇧ ⇗ 157 / 181 1 / 1

8

18 / 104 57 / 65 ⇩ 64 / 115 ⇘	**N Kelsey St**	⇗ 96 / 127 ⇦ 571 / 370 ⇖ 25 / 10 **W Riggin Ave**
64 / 73 ⇦ 336 / 586 ⇨ 33 / 16 ⇙		13 / 36 ⇦ ⇧ ⇗ 65 / 62 6 / 25

9

43 / 103 72 / 151 ⇩ 90 / 179 ⇘	**N Kelsey St**	⇗ 155 / 60 ⇦ 383 / 273 ⇖ 136 / 56 **W Goshen Ave**
79 / 32 ⇦ 298 / 420 ⇨ 50 / 40 ⇙		34 / 40 ⇦ ⇧ ⇗ 135 / 53 64 / 121

10

3 / 4 2 / 0 ⇩ **Future N Clancy St**		⇦ 1 / 0 **Unnamed North Road**
		⇧ 8 / 3

11

0 / 4 **Future N Clancy St** ⇙		⇗ 0 / 4 ⇦ 673 / 526 ⇖ 4 / 6 **W Riggin Ave**
351 / 752 ⇨ 6 / 2 ⇙		3 / 7 ⇦ ⇗ 2 / 8

12

8 / 7 61 / 38 ⇩ 2 / 7 ⇘	**N Shirk St**	⇗ 6 / 3 ⇦ 102 / 19 ⇖ 29 / 16 **Avenue 320**
5 / 9 ⇦ 69 / 124 ⇨ 31 / 30 ⇙		18 / 15 ⇦ ⇧ ⇗ 31 / 89 8 / 28

13

130 / 94 ⇩	**N Shirk St**	**Shannon Pkwy**
1 / 0 ⇦		⇧ 67 / 134

14

27 / 39 149 / 279 ⇩ 23 / 116 ⇘	**N Shirk St**	⇗ 45 / 190 ⇦ 511 / 373 ⇖ 117 / 176 **W Riggin Ave**
22 / 95 ⇦ 297 / 568 ⇨ 120 / 151 ⇙		174 / 146 ⇦ ⇧ ⇗ 97 / 352 68 / 177

15

27 / 4 353 / 568 ⇩ 65 / 89 ⇘	**N Shirk St**	⇗ 69 / 88 ⇦ 22 / 2 ⇖ 143 / 71 **Ferguson Ave**
W Sunnyview Ave 6 / 57 ⇦ 2 / 38 ⇨ 25 / 93 ⇙		64 / 37 ⇦ ⇧ ⇗ 265 / 549 76 / 105

16

116 / 41 398 / 678 ⇩ 2 / 6 ⇘	**N Shirk St**	⇗ 7 / 2 ⇦ 28 / 9 ⇖ 213 / 58 **W Doe Ave**
26 / 119 ⇦ 2 / 10 ⇨ 43 / 217 ⇙		187 / 72 ⇦ ⇧ ⇗ 349 / 573 46 / 93

17

130 / 97 518 / 740 ⇩ 72 / 138 ⇘	**N Shirk St**	⇗ 101 / 101 ⇦ 381 / 227 ⇖ 84 / 48 **W Goshen Ave**
51 / 153 ⇦ 210 / 430 ⇨ 184 / 246 ⇙		223 / 111 ⇦ ⇧ ⇗ 512 / 498 103 / 83

18

487 / 931 28 / 89 ⇩ **N Shirk St** ⇘		⇗ 63 / 78 ⇖ 71 / 34 **W Hurley Ave**
		⇧ 783 / 700 35 / 84

19

9 / 9 13 / 11 ⇩ 29 / 26 ⇘	-	⇗ 10 / 38 ⇦ 719 / 941 ⇖ 90 / 38 **W Riggin Ave**
3 / 10 ⇦ 382 / 861 ⇨ 14 / 48 ⇙	**N Roeben St**	45 / 36 ⇦ ⇧ ⇗ 5 / 18 87 / 44

20

16 / 6 7 / 11 ⇩ 27 / 17 ⇘	**N Roeben St**	⇗ 9 / 35 ⇦ 185 / 137 ⇖ 44 / 62 **W Ferguson Ave**
10 / 17 ⇦ 105 / 194 ⇨ 2 / 3 ⇙		2 / 1 ⇦ ⇧ ⇗ 10 / 12 46 / 62

21

0 / 1 0 / 1 ⇩	**N Akers St**	⇗ 1 / 1 ⇧ 72 / 39 ⇖ 55 / 44 **Avenue 320**
43 / 92 ⇦ 14 / 28 ⇙		22 / 26 ⇦ ⇧ ⇗ 1 / 0 30 / 59

22

75 / 71 ⇩	**N Akers St**	⇗ 0 / 1 **Future Shannon Pkwy**
		⇧ 58 / 86

23

130 / 84 349 / 82 ⇩ 197 / 44 ⇘	**N Akers St**	⇗ 178 / 89 ⇧ 561 / 547 ⇖ 195 / 112 **W Riggin Ave**
143 / 56 ⇦ 296 / 637 ⇨ 102 / 275 ⇙		126 / 372 ⇦ ⇧ ⇗ 262 / 230 155 / 188

24

74 / 32 596 / 318 ⇩ 44 / 35 ⇘	**N Akers St**	⇗ 54 / 37 ⇧ 171 / 135 ⇖ 253 / 108 **W Ferguson Ave**
67 / 36 ⇦ 115 / 136 ⇨ 265 / 121 ⇙		140 / 216 ⇦ ⇧ ⇗ 378 / 521 120 / 252

25

97 / 67 768 / 450 ⇩ 317 / 223 ⇘	**N Akers St**	⇗ 137 / 228 ⇦ 282 / 233 ⇖ 168 / 111 **W Goshen Ave**
50 / 132 ⇦ 247 / 425 ⇨ 44 / 87 ⇙		227 / 188 ⇦ ⇧ ⇗ 492 / 840 162 / 149

26

118 / 83 1 / 5 ⇩	**N Shirk St**	⇗ 1 / 1 ⇖ 12 / 11 **Shannon Pkwy**
		⇧ 65 / 118 1 / 16

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

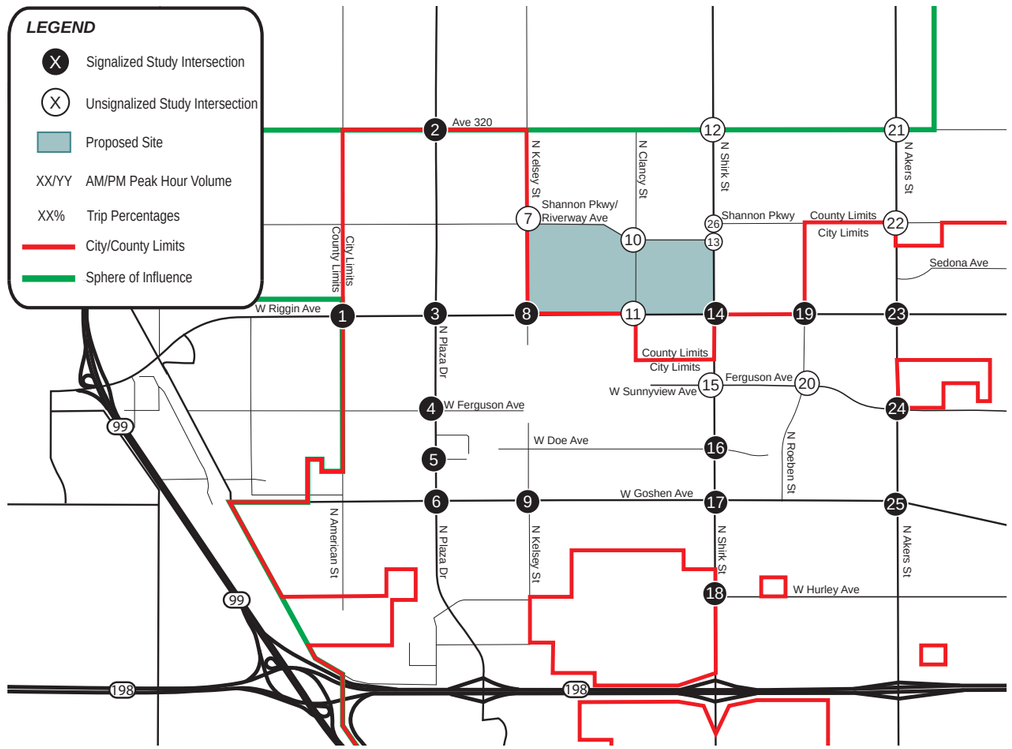
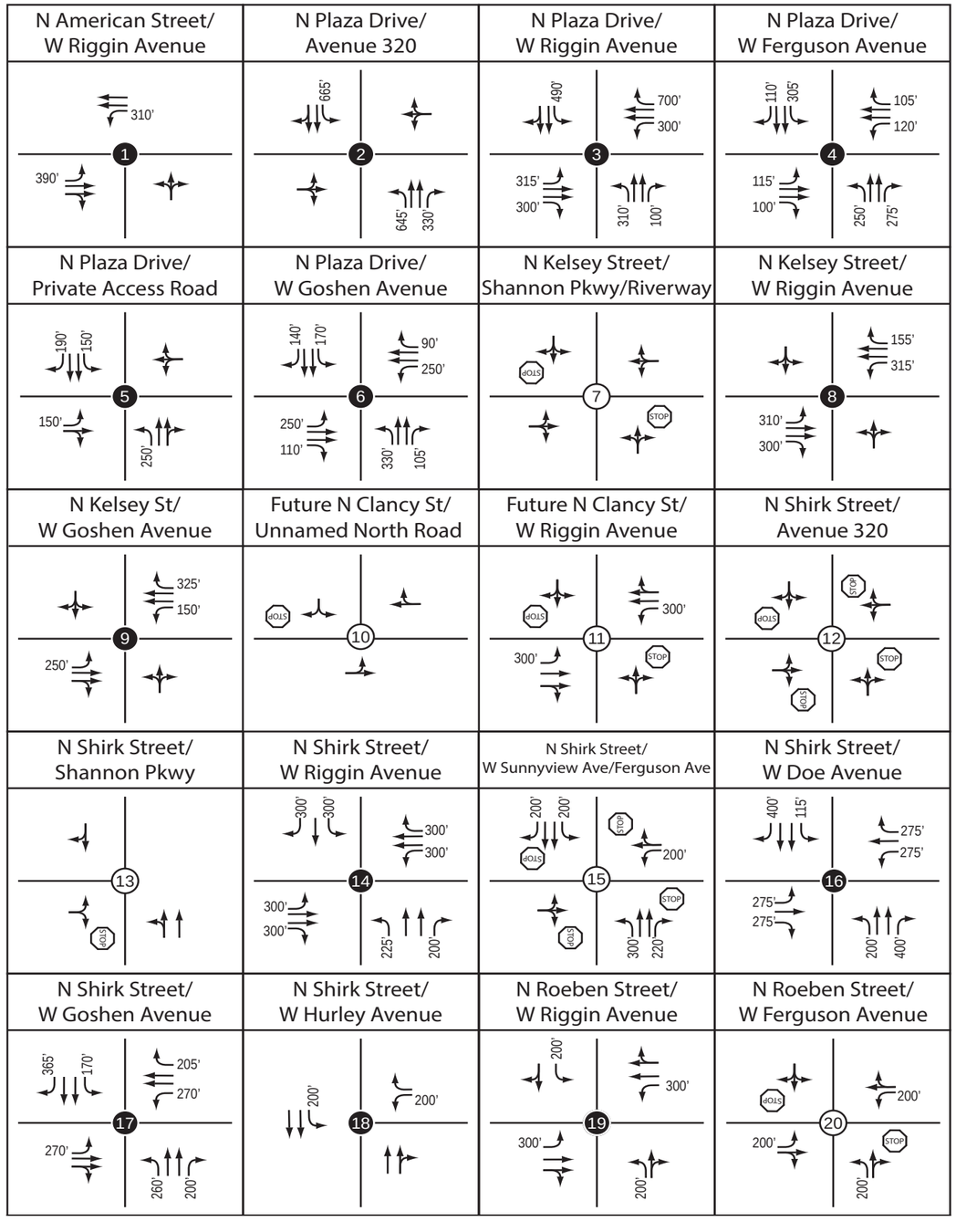


FIGURE 27 NEAR TERM (2028) TRANSPORTATION CONDITIONS



Near-Term (2028) Level of Service

Table 11 displays the intersection LOS analysis results under Near-Term (2028) Conditions, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS E – AM / LOS F – PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term (2026) Conditions.

Near-Term (2028) Plus Project Build-Out Lane Configuration and Control

The proposed project would construct the following improvements adjacent to the project site, described in further detail in Section 3 – Project Description, Proposed Off-Site Roadway Improvements:

- W Riggin Avenue
  - Construct sidewalk, parkway, and one (1) driveway between N Clancy Street and commercial development (approximately 1,950-feet)
- N Shirk Street
  - Construct roadway, sidewalk, parkway, and two (2) driveways between limits of Phase 2 improvements and north of the proposed project's frontage (approximately 1,200-feet)

Near-Term (2028) Plus Project Build-Out Level of Service

Near-Term (2028) Plus Project volumes are shown on **Figure 28**, and were determined by adding the Phase 3 (Buildout) Project Trip Assignment to the Near-Term (2028) Traffic Volumes. **Table 11** displays the intersection LOS analysis results under Near-Term (2028) Conditions Plus Project Build-out, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – AM and PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)*

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term (2026) Plus Phase 2 Conditions.

TABLE 12 NEAR-TERM (2028) INTERSECTION LEVEL OF SERVICE SUMMARY

NEAR-TERM (2028)
INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	JURISDICTION	TRAFFIC CONTROL	PEAK HOUR	NEAR-TERM (2028) CONDITIONS		NEAR-TERM (2028) CONDITIONS PLUS PROJECT BUILD-OUT		
					DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (△)
1	N American St & W Riggin Ave	City/County	Signal	AM	11.1	B	12.4	B	1.3
				PM	12.0	B	13.0	B	1.0
2	N Plaza Drive & Avenue 320	City/County	Signal	AM	12.2	B	13.3	B	1.1
				PM	11.4	B	12.9	B	1.5
3	N Plaza Drive & W Riggin Ave	City	Signal	AM	49.8	D	50.7	D	0.9
				PM	43.7	D	48.5	D	4.8
4	N Plaza Dr & W Ferguson Ave	City	Signal	AM	39.0	D	41.0	D	2.0
				PM	36.4	D	39.0	D	2.6
5	N Plaza Dr & Private Access Road	City	Signal	AM	53.0	D	52.8	D	-0.2
				PM	16.3	B	19.2	B	2.9
6	N Plaza Dr & W Goshen Ave	City	Signal	AM	47.3	D	54.6	D	7.3
				PM	49.2	D	54.4	D	5.2
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	City/County	Two-Way Stop	AM	11.9	B	13.6	B	1.7
				PM	7.3	A	14.6	B	7.3
8	N Kelsey St & W Riggin Ave	City/County	Signal	AM	9.3	A	10.7	B	1.4
				PM	11.4	B	13.3	B	1.9
9	N Kelsey St & W Goshen Ave	City	Signal	AM	21.2	C	22.8	C	1.6
				PM	33.6	C	36.6	D	3.0
10	Future N Clancy St & Unnamed North Road	County	One-Way Stop	AM	8.8	A	9.2	A	0.4
				PM	0.0	A	0.0	A	0.0
11	Future N Clancy St & W Riggin Ave	City/County	Two-Way Stop/Signal	AM	14.9	B	16.7	B	1.8
				PM	23.8	C	17.0	B	-6.8
12	N Shirk St & Avenue 320	County	All-Way Stop	AM	8.8	A	9.7	A	0.9
				PM	8.9	A	9.6	A	0.7
13	N Shirk St & Shannon Pkwy	County	Two-Way Stop	AM	10.7	B	10.2	B	-0.5
				PM	0.0	A	9.1	A	9.1
14	N Shirk St & W Riggin Ave	City/County	Signal	AM	17.4	B	28.0	C	10.6
				PM	24.2	C	32.3	C	8.1
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	City	All-Way Stop	AM	16.8	C	71.7	**F**	54.9
				PM	116.5	**F**	ECL	**F**	>5.0
16	N Shirk St & W Doe Ave	City	Signal	AM	19.3	B	19.4	B	0.1
				PM	18.1	B	20.3	C	2.2
17	N Shirk St & W Goshen Ave	City	Signal	AM	37.0	D	40.2	D	3.2
				PM	34.9	C	41.6	D	6.7
18	N Shirk St & W Hurley Ave	City/County	Signal	AM	19.4	B	23.7	C	4.3
				PM	15.4	B	15.6	B	0.2
19	N Roeben St & W Riggin Ave	City/County	Signal	AM	13.5	B	13.7	B	0.2
				PM	12.2	B	12.1	B	-0.1
20	N Roeben St & W Ferguson Ave	City	Two-Way Stop	AM	14.3	B	16.1	C	1.8
				PM	15.0	C	16.7	C	1.7
21	N Akers St & Avenue 320	County	Two-Way Stop	AM	9.8	A	10.6	B	0.8
				PM	9.9	A	10.5	B	0.6
22	N Akers St & Future Shannon Parkway	County	Two-Way Stop	AM	0.0	A	9.6	A	9.6
				PM	9.5	A	9.5	A	0.0
23	N Akers St & W Riggin Ave	City	Signal	AM	65.2	**E**	91.2	**F**	26.0
				PM	170.2	**F**	172.2	**F**	2.0
24	N Akers St & W Ferguson Ave	City/County	Signal	AM	55.4	**E**	60.7	**E**	5.3
				PM	39.5	D	40.3	D	0.8
25	N Akers St & W Goshen Ave	City	Signal	AM	52.0	D	52.3	D	0.3
				PM	43.0	D	44.9	D	1.9
26	N Shirk St & Shannon Parkway	County	Two-Way Stop	AM	10.3	B	11.2	B	0.9
				PM	10.0	B	10.6	B	0.6

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Editio*n and performed using Synchro 11.0
City - City of Visalia
County - Tulare County

K:\SND_TPTO\195170025_Project Ritchie\ANALYSIS\EXCEL\[Shirk and Riggin Industrial Park_IN01.xlsm]2028 WP

FIGURE 28 NEAR-TERM (2028) PLUS PROJECT BUILD-OUT PEAK HOUR TURNING MOVEMENT VOLUMES

1

		742 / 864
		28 / 82
		W Riggin Ave
39 / 40	N American St	4 / 11
899 / 844		69 / 43
8 / 3		

2

1 / 0		
673 / 516	N Plaza Dr	112 / 87
108 / 84		59 / 60
		105 / 87
		Avenue 320
1 / 1		11 / 43
63 / 62		466 / 765
36 / 17		108 / 101

3

270 / 269		
537 / 450	N Plaza Dr	100 / 137
74 / 109		435 / 480
		242 / 302
		W Riggin Ave
257 / 284		85 / 210
432 / 483		445 / 695
253 / 121		264 / 236

4

108 / 49		
928 / 910	N Plaza Dr	0 / 10
4 / 3		12 / 39
		W Ferguson Ave
20 / 107		184 / 95
0 / 1		853 / 967
60 / 161		14 / 22

5

168 / 32		
867 / 1173	N Plaza Dr	1 / 3
6 / 1		1 / 7
Driveway		Private Access Road
20 / 149		282 / 61
		1058 / 941
32 / 252		20 / 3

6

55 / 109		
656 / 1002	N Plaza Dr	241 / 196
192 / 272		144 / 163
		65 / 86
		W Goshen Ave
103 / 104		190 / 169
176 / 243		1041 / 758
229 / 245		73 / 65

7

56 / 56		
184 / 201	N Kelsey St	3 / 5
5 / 2		2 / 5
		21 / 8
		Shannon Pkwy/Riverway
57 / 57		23 / 26
5 / 2		176 / 243
23 / 25		7 / 20

8

46 / 199		
59 / 71	N Kelsey St	158 / 154
100 / 208		660 / 603
		31 / 25
		W Riggin Ave
160 / 102		13 / 36
574 / 676		71 / 64
33 / 16		22 / 31

9

43 / 103		
80 / 173	N Kelsey St	155 / 60
90 / 179		383 / 273
		140 / 67
		W Goshen Ave
79 / 32		45 / 44
298 / 420		158 / 61
54 / 51		75 / 125

10

3 / 4		
2 / 0	Future N Clancy St	24 / 15
		Unnamed North Road
16 / 23		8 / 3

11

72 / 184		
4 / 11	Future N Clancy St	235 / 83
83 / 249		774 / 593
		6 / 11
		W Riggin Ave
188 / 73		9 / 9
419 / 852		11 / 4
8 / 8		7 / 10

12

8 / 7		
61 / 38	N Shirk St	6 / 3
2 / 7		115 / 23
		72 / 32
		Avenue 320
5 / 9		24 / 29
73 / 137		31 / 89
45 / 36		24 / 70

13

187 / 116	N Shirk St	
		Shannon Pkwy
1 / 0		23 / 15
		89 / 190
16 / 23		

14

31 / 48		
225 / 477	N Shirk St	88 / 208
77 / 199		669 / 426
		117 / 176
		W Riggin Ave
76 / 133		382 / 217
313 / 682		280 / 420
182 / 336		68 / 177

15

27 / 4		
467 / 887	N Shirk St	136 / 112
88 / 155		22 / 2
		143 / 71
W Sunnyview Ave		Ferguson Ave
6 / 57		64 / 37
2 / 38		589 / 665
25 / 93		76 / 105

16

124 / 63		
504 / 974	N Shirk St	7 / 2
2 / 6		28 / 9
		213 / 58
		W Doe Ave
49 / 127		187 / 72
2 / 10		651 / 681
43 / 217		46 / 93

17

134 / 108		
612 / 1004	N Shirk St	124 / 109
80 / 160		381 / 227
		84 / 48
		W Goshen Ave
62 / 157		223 / 111
210 / 430		781 / 594
184 / 246		103 / 83

18

581 / 1195		
28 / 89	N Shirk St	63 / 78
		71 / 34
		W Hurley Ave
		1052 / 796
		35 / 84

19

9 / 9		
13 / 11	-	10 / 38
29 / 26		909 / 1008
		90 / 38
		W Riggin Ave
3 / 10		56 / 40
449 / 1048		5 / 18
18 / 59		87 / 44
	N Roeben St	

20

16 / 6		
7 / 11	N Roeben St	9 / 35
27 / 17		241 / 157
		44 / 62
		W Ferguson Ave
10 / 17		13 / 5
124 / 249		10 / 12
6 / 14		46 / 62

21

0 / 1		
0 / 1	N Akers St	1 / 1
		117 / 55
		55 / 44
		Avenue 320
59 / 136		33 / 30
18 / 39		1 / 0
		30 / 59

22

75 / 71		
4 / 11	N Akers St	11 / 4
		23 / 9
		Future Shannon Pkwy
		58 / 86
		8 / 22

23

153 / 92		
349 / 82	N Akers St	178 / 89
197 / 44		706 / 598
		195 / 112
		W Riggin Ave
151 / 78		149 / 380
347 / 779		262 / 230
110 / 297		155 / 188

24

74 / 32		
604 / 340	N Akers St	54 / 37
44 / 35		194 / 143
		253 / 108
		W Ferguson Ave
67 / 36		173 / 228
123 / 158		401 / 529
277 / 154		120 / 252

25

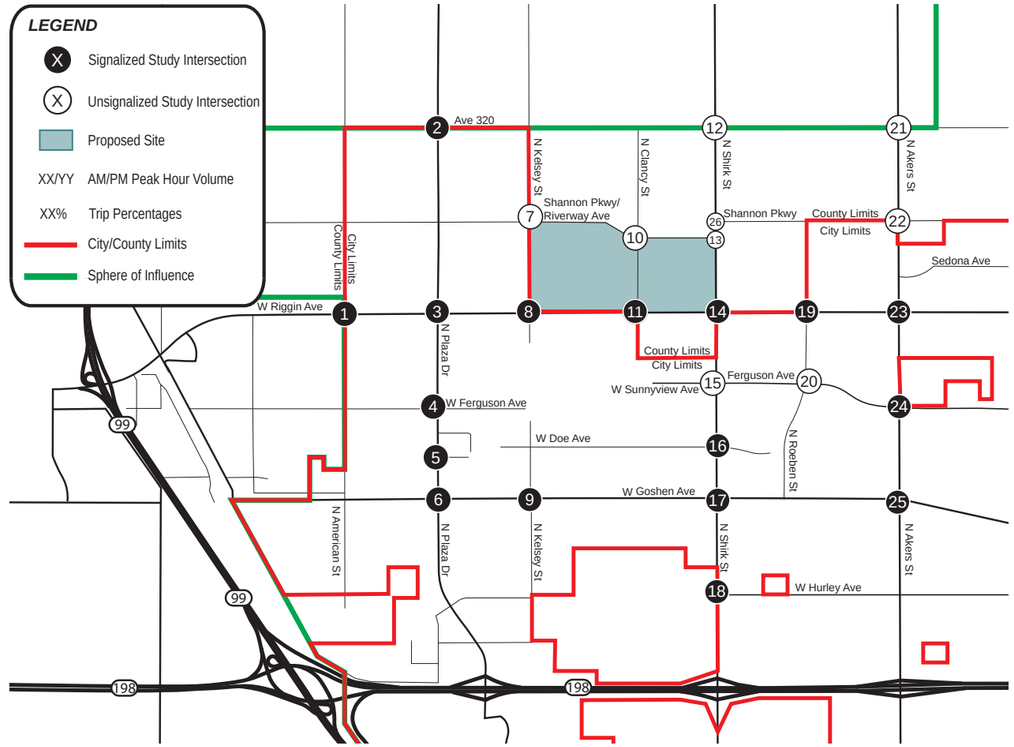
97 / 67		
776 / 472	N Akers St	164 / 238
327 / 250		311 / 243
		168 / 111
		W Goshen Ave
50 / 132		227 / 188
257 / 453		515 / 848
44 / 87		162 / 149

26

175 / 105		
1 / 5	N Shirk St	1 / 1
		12 / 11
		Shannon Pkwy
		87 / 174
		1 / 16

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence



LONG-TERM (2033) CONDITIONS

Long-Term (2033) Conditions were evaluated because this represents 5-years after the opening of the full build-out of the proposed project, year 2033.

Long-Term (2033) Traffic Volumes

Long-Term (2033) traffic volumes were developed utilizing base year 2015 and future 2042 model plots from the TCAG Regional Travel Demand Forecast Model. The model plots were used to determine the incremental difference in traffic volumes at each leg of the study intersection. The incremental difference in volumes were then used to determine growth rates to be applied to existing leg volumes. The future leg volumes were converted to intersection turning movement volumes using the Furness methodology in the *TurnsW32* software. These volumes were then adjusted to ensure that each individual Long-Term intersection turning movement traffic volume was greater than or equal to the Near-Term (2028) traffic volumes plus the addition of traffic generated by the CASP – Phase 3 development, which is assumed to be complete prior to 2033. This volume adjustment ensures the Long-Term (2033) volumes include all known cumulative project volumes expected. The CASP – Phase 3 traffic is summarized below.

Cumulative Project Assumed for Near-Term (2033) Conditions

Project	Project Description	Trip Generation	AM Peak	PM Peak	Status
*Carlton Acres Specific Plan – Phase 3 (SPR 22-071/073)	Portion of 507-AC Mixed Use Development	ITE (LU 210 & 220) – 6,993 ADT	109 IB / 322 OB	387 IB / 232 OB	Approved

*Trip generation, distribution and assignments obtained from development team.

Appendix H contains detailed information and calculations related to the development of cumulative traffic volumes, including documentation of trip generation/distribution/assignment assumptions. Long-Term (2033) peak hour turning movement volumes are presented on **Figure 29**. **Appendix L** contains the TCAG Model Plots and growth calculations.

Long-Term (2033) Lane Configuration and Control

Under Long-Term (2033) Conditions, no roadway improvements were assumed to occur within the study area between Near-Term (2028) Conditions and Long-Term (2033) Conditions. Therefore, only the Near-Term (2028) transportation conditions were assumed, as shown on **Figure 27**.

Long-Term (2033) Level of Service

Table 12 displays the intersection LOS analysis results under Long-Term (2033) Conditions, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)*

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term Conditions.

FIGURE 29 LONG-TERM (2033) PEAK HOUR TURNING MOVEMENT VOLUMES

1

		716 / 762 ⇦ 21 / 61 ⇙ W Riggin Ave
39 / 40 ⇖ 794 / 813 ⇧ 9 / 4 ⇗ N American St	5 / 14 ⇖ ⇧ ⇗	⇧ 47 / 36 ⇗

2

2 / 0 ⇖ 663 / 512 ⇩ 77 / 109 ⇗ N Plaza Dr		107 / 63 ⇦ 59 / 60 ⇧ 106 / 88 ⇗ Avenue 320
1 / 3 ⇖ 64 / 62 ⇨ 36 / 17 ⇗	11 / 43 ⇖ 462 / 756 ⇧ 108 / 102 ⇗	

3

271 / 270 ⇖ 537 / 450 ⇩ 65 / 106 ⇗ N Plaza Dr		97 / 128 ⇦ 402 / 354 ⇧ 179 / 117 ⇗ W Riggin Ave
257 / 285 ⇖ 306 / 445 ⇨ 253 / 121 ⇗	85 / 210 ⇖ 445 / 695 ⇧ 76 / 172 ⇗	

4

110 / 50 ⇖ 863 / 724 ⇩ 7 / 5 ⇗ N Plaza Dr		0 / 13 ⇦ 14 / 39 ⇙ W Ferguson Ave
22 / 108 ⇖ 0 / 2 ⇨ 60 / 161 ⇗	184 / 95 ⇖ 663 / 902 ⇧ 14 / 28 ⇗	

5

168 / 32 ⇖ 802 / 987 ⇩ 6 / 1 ⇗ N Plaza Dr		1 / 3 ⇦ 1 / 7 ⇙ Private Access Road
Driveway 20 / 149 ⇖ 32 / 252 ⇙	282 / 61 ⇖ 868 / 876 ⇧ 20 / 3 ⇗	

6

52 / 99 ⇖ 599 / 838 ⇩ 189 / 262 ⇗ N Plaza Dr		230 / 193 ⇦ 145 / 164 ⇧ 65 / 86 ⇗ W Goshen Ave
92 / 101 ⇖ 176 / 243 ⇨ 229 / 245 ⇗	190 / 169 ⇖ 873 / 700 ⇧ 73 / 65 ⇗	

7

56 / 56 ⇖ 121 / 181 ⇩ N Kelsey St		4 / 0 ⇦ 2 / 2 ⇙ Shannon Pkwy/Riverway
57 / 57 ⇖ 5 / 19 ⇙	17 / 8 ⇖ 157 / 181 ⇧ 1 / 1 ⇗	

8

31 / 110 ⇖ 57 / 65 ⇩ 65 / 116 ⇗ N Kelsey St		98 / 128 ⇦ 589 / 377 ⇧ 27 / 19 ⇗ W Riggin Ave
65 / 79 ⇖ 345 / 598 ⇨ 33 / 35 ⇗	13 / 45 ⇖ 65 / 62 ⇧ 7 / 26 ⇗	

9

43 / 103 ⇖ 72 / 151 ⇩ 90 / 179 ⇗ N Kelsey St		155 / 60 ⇦ 384 / 275 ⇧ 136 / 56 ⇙ W Goshen Ave
79 / 43 ⇖ 299 / 421 ⇨ 50 / 40 ⇗	34 / 40 ⇖ 135 / 55 ⇧ 64 / 121 ⇗	

10

4 / 6 ⇖ 5 / 0 ⇩ Future N Clancy St		6 / 0 ⇦ Unnamed North Road
	8 / 3 ⇧	

11

1 / 4 ⇖ Future N Clancy St		1 / 5 ⇦ 695 / 535 ⇧ 6 / 7 ⇗ W Riggin Ave
362 / 766 ⇖ 6 / 2 ⇙	3 / 7 ⇖ ⇧ ⇗	⇧ 3 / 9 ⇗

12

8 / 7 ⇖ 62 / 39 ⇩ 10 / 10 ⇗ N Shirk St		14 / 5 ⇦ 103 / 23 ⇧ 31 / 19 ⇗ Avenue 320
5 / 9 ⇖ 75 / 134 ⇨ 33 / 31 ⇗	19 / 16 ⇖ 33 / 90 ⇧ 17 / 43 ⇗	

13

163 / 118 ⇩ N Shirk St		Shannon Pkwy
3 / 0 ⇖	⇧ 89 / 161	

14

39 / 44 ⇖ 161 / 233 ⇩ 31 / 121 ⇗ N Shirk St		54 / 200 ⇦ 524 / 379 ⇧ 120 / 174 ⇗ W Riggin Ave
25 / 95 ⇖ 301 / 579 ⇨ 120 / 151 ⇗	174 / 146 ⇖ 103 / 354 ⇧ 68 / 177 ⇗	

15

30 / 7 ⇖ 366 / 528 ⇩ 67 / 81 ⇗ N Shirk St		70 / 88 ⇦ 24 / 3 ⇙ 143 / 71 ⇙ Ferguson Ave
W Sunnyview Ave 8 / 69 ⇖ 3 / 42 ⇨ 31 / 95 ⇗	64 / 48 ⇖ 270 / 551 ⇧ 76 / 105 ⇗	

16

116 / 48 ⇖ 411 / 638 ⇩ 3 / 10 ⇗ N Shirk St		7 / 3 ⇦ 31 / 19 ⇙ 219 / 85 ⇙ W Doe Ave
29 / 119 ⇖ 4 / 24 ⇨ 52 / 235 ⇗	187 / 81 ⇖ 353 / 575 ⇧ 65 / 159 ⇗	

17

132 / 93 ⇖ 527 / 713 ⇩ 75 / 130 ⇗ N Shirk St		102 / 101 ⇦ 382 / 228 ⇙ 84 / 48 ⇙ W Goshen Ave
51 / 153 ⇖ 210 / 430 ⇨ 184 / 246 ⇗	223 / 111 ⇖ 515 / 500 ⇧ 103 / 83 ⇗	

18

494 / 910 ⇩ 30 / 83 ⇗ N Shirk St		64 / 79 ⇦ 79 / 48 ⇙ W Hurley Ave
	786 / 700 ⇧ 39 / 108 ⇗	

19

14 / 12 ⇖ 24 / 18 ⇩ 55 / 50 ⇗ -		53 / 70 ⇦ 748 / 961 ⇧ 94 / 51 ⇙ W Riggin Ave
7 / 17 ⇖ 405 / 880 ⇨ 15 / 48 ⇗ N Roeben St	45 / 37 ⇖ 13 / 29 ⇧ 88 / 82 ⇗	

20

18 / 8 ⇖ 15 / 30 ⇩ 29 / 19 ⇗ N Roeben St		10 / 38 ⇦ 185 / 137 ⇙ 69 / 84 ⇙ W Ferguson Ave
12 / 24 ⇖ 105 / 194 ⇨ 4 / 6 ⇗	3 / 3 ⇖ 20 / 48 ⇧ 59 / 128 ⇗	

21

0 / 1 ⇖ 0 / 1 ⇩ N Akers St		1 / 1 ⇦ 95 / 63 ⇧ 61 / 69 ⇗ Avenue 320
71 / 120 ⇖ 21 / 55 ⇙	34 / 38 ⇖ 1 / 0 ⇧ 37 / 64 ⇗	

22

84 / 106 ⇩ N Akers St		0 / 12 ⇦ Future Shannon Pkwy
	⇧ 65 / 106	

23

140 / 92 ⇖ 404 / 137 ⇩ 251 / 116 ⇗ N Akers St		240 / 117 ⇦ 596 / 580 ⇧ 195 / 112 ⇗ W Riggin Ave
150 / 63 ⇖ 327 / 662 ⇨ 150 / 310 ⇗	170 / 419 ⇖ 314 / 257 ⇧ 155 / 188 ⇗	

24

77 / 34 ⇖ 630 / 334 ⇩ 48 / 37 ⇗ N Akers St		55 / 39 ⇦ 171 / 135 ⇧ 253 / 108 ⇗ W Ferguson Ave
68 / 37 ⇖ 115 / 137 ⇨ 265 / 123 ⇗	140 / 216 ⇖ 398 / 542 ⇧ 120 / 252 ⇗	

25

101 / 70 ⇖ 786 / 458 ⇩ 329 / 228 ⇗ N Akers St		143 / 235 ⇦ 282 / 233 ⇧ 168 / 111 ⇗ W Goshen Ave
51 / 134 ⇖ 247 / 421 ⇨ 45 / 83 ⇗	227 / 188 ⇖ 504 / 853 ⇧ 162 / 149 ⇗	

26

139 / 97 ⇩ 3 / 7 ⇗ N Shirk St		5 / 6 ⇦ 24 / 21 ⇙ Shannon Pkwy
	⇧ 79 / 133	⇧ 10 / 28 ⇗

LEGEND

- (X) Signalized Study Intersection
- (X) Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

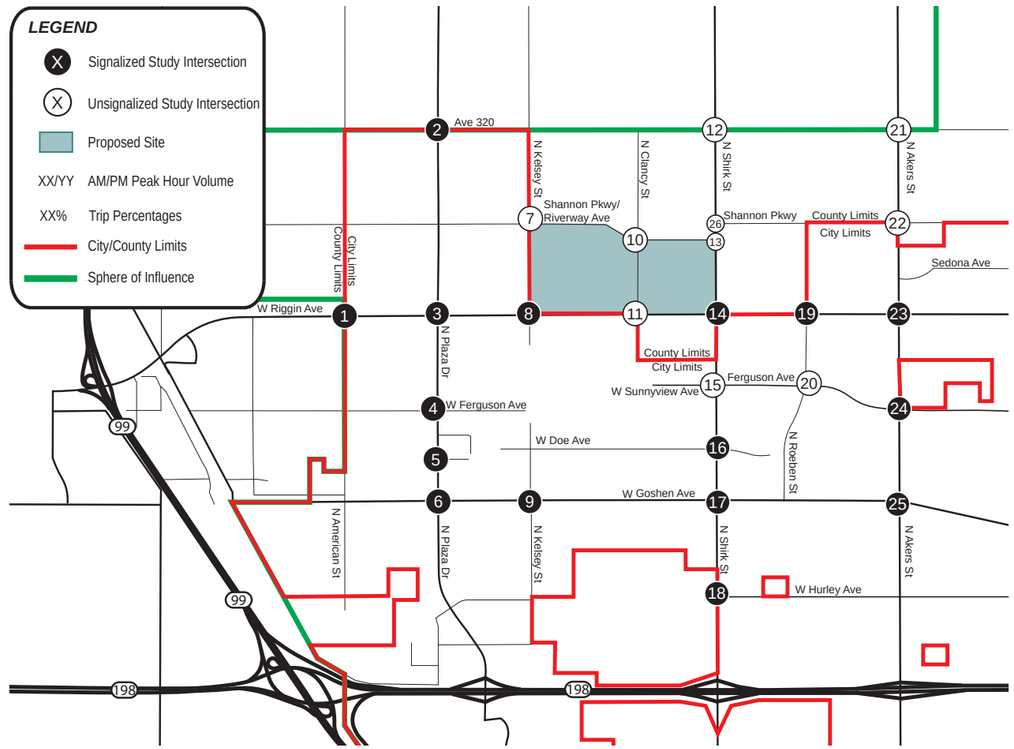


TABLE 13 LONG-TERM (2033) INTERSECTION LEVEL OF SERVICE SUMMARY

LONG-TERM (2033)
INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	JURISDICTION	TRAFFIC CONTROL	PEAK HOUR	LONG-TERM (2033) CONDITIONS		LONG-TERM (2033) CONDITIONS PLUS PROJECT BUILD-OUT		
					DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (△)
1	N American St & W Riggin Ave	City/County	Signal	AM	11.2	B	12.5	B	1.3
				PM	12.1	B	13.1	B	1.0
2	N Plaza Drive & Avenue 320	City/County	Signal	AM	12.7	B	13.8	B	1.1
				PM	12.9	B	14.6	B	1.7
3	N Plaza Drive & W Riggin Ave	City	Signal	AM	40.7	D	41.9	D	1.2
				PM	43.8	D	48.9	D	5.1
4	N Plaza Dr & W Ferguson Ave	City	Signal	AM	39.7	D	41.7	D	2.0
				PM	36.6	D	39.2	D	2.6
5	N Plaza Dr & Private Access Road	City	Signal	AM	53.2	D	52.9	D	-0.3
				PM	16.3	B	19.3	B	3.0
6	N Plaza Dr & W Goshen Ave	City	Signal	AM	47.4	D	54.7	D	7.3
				PM	49.4	D	54.7	D	5.3
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	City/County	Two-Way Stop	AM	11.9	B	13.7	B	1.8
				PM	7.3	A	14.6	B	7.3
8	N Kelsey St & W Riggin Ave	City/County	Signal	AM	9.6	A	11.0	B	1.4
				PM	11.8	B	13.7	B	1.9
9	N Kelsey St & W Goshen Ave	City	Signal	AM	21.3	C	22.8	C	1.5
				PM	34.0	C	37.0	D	3.0
10	Future N Clancy St & Unnamed North Road	County	One-Way Stop	AM	8.9	A	9.3	A	0.4
				PM	0.0	A	0.0	A	0.0
11	Future N Clancy St & W Riggin Ave	City/County	Two-Way Stop/Signal	AM	24.1	C	18.5	B	-5.6
				PM	24.5	C	20.7	C	-3.8
12	N Shirk St & Avenue 320	County	All-Way Stop	AM	9.1	A	11.1	B	2.0
				PM	9.1	A	9.3	A	0.2
13	N Shirk St & Shannon Pkwy	County	Two-Way Stop	AM	11.5	B	11.1	B	-0.4
				PM	0.0	A	9.3	A	9.3
14	N Shirk St & W Riggin Ave	City/County	Signal	AM	17.8	B	28.9	C	11.1
				PM	23.1	C	31.0	C	7.9
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	City	All-Way Stop	AM	17.7	C	73.8	**F**	56.1
				PM	112.8	**F**	ECL	**F**	>5.0
16	N Shirk St & W Doe Ave	City	Signal	AM	19.6	B	19.8	B	0.2
				PM	19.7	B	22.7	C	3.0
17	N Shirk St & W Goshen Ave	City	Signal	AM	37.3	D	40.6	D	3.3
				PM	34.4	C	40.8	D	6.4
18	N Shirk St & W Hurley Ave	City/County	Signal	AM	19.6	B	23.9	C	4.3
				PM	15.5	B	15.6	B	0.1
19	N Roeben St & W Riggin Ave	City/County	Signal	AM	17.0	B	17.1	B	0.1
				PM	15.8	B	16.2	B	0.4
20	N Roeben St & W Ferguson Ave	City	Two-Way Stop	AM	16.8	C	19.5	C	2.7
				PM	19.6	C	22.8	C	3.2
21	N Akers St & Avenue 320	County	Two-Way Stop	AM	10.7	B	11.6	B	0.9
				PM	11.0	B	11.9	B	0.9
22	N Akers St & Future Shannon Parkway	County	Two-Way Stop	AM	0.0	A	9.7	A	9.7
				PM	10.0	B	10.2	B	0.2
23	N Akers St & W Riggin Ave	City	Signal	AM	102.1	**F**	132.7	**F**	30.6
				PM	ECL	**F**	ECL	**F**	>5.0
24	N Akers St & W Ferguson Ave	City/County	Signal	AM	58.3	**E**	64.6	**E**	6.3
				PM	40.1	D	40.9	D	0.8
25	N Akers St & W Goshen Ave	City	Signal	AM	51.5	D	51.9	D	0.4
				PM	41.3	D	43.1	D	1.8
26	N Shirk St & Shannon Parkway	County	Two-Way Stop	AM	10.8	B	11.8	B	1.0
				PM	10.2	B	10.9	B	0.7

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Editio*n and performed using Synchro 11.0
City - City of Visalia
County - Tulare County

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Long-Term (2033) Plus Project Build-out Level of Service

Long-Term (2033) Plus Project volumes are shown on **Figure 30**, and were determined by adding the Phase 3 (Buildout) Project Trip Assignment to the Long-Term (2033) Traffic Volumes. **Table 12** displays the intersection LOS analysis results under Long-Term (2033) Conditions Plus Project Build-out, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – AM and PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)*

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term Plus Project Conditions.

FIGURE 30 LONG-TERM (2033) PLUS PROJECT BUILD-OUT PEAK HOUR TURNING MOVEMENT VOLUMES

1

	755 / 871 29 / 83 W Riggin Ave	
39 / 40 906 / 853 9 / 4 N American St		5 / 14 70 / 44

2

2 / 0 673 / 516 123 / 125 N Plaza Dr		122 / 109 59 / 60 106 / 88 Avenue 320
1 / 3 64 / 62 36 / 17		11 / 43 466 / 765 108 / 102

3

271 / 270 537 / 450 75 / 110 N Plaza Dr		101 / 137 449 / 486 246 / 304 W Riggin Ave
257 / 285 440 / 493 253 / 121		85 / 210 445 / 695 266 / 239

4

110 / 50 930 / 911 7 / 5 N Plaza Dr		0 / 13 14 / 39 W Ferguson Ave
22 / 108 0 / 2 60 / 161		184 / 95 853 / 969 14 / 28

5

168 / 32 869 / 1174 6 / 1 N Plaza Dr		1 / 3 1 / 7 Private Access Road
20 / 149 32 / 252 Driveway		282 / 61 1058 / 943 20 / 3

6

56 / 110 657 / 1003 193 / 273 N Plaza Dr		241 / 197 145 / 164 65 / 86 W Goshen Ave
103 / 105 176 / 243 229 / 245		190 / 169 1041 / 759 73 / 65

7

56 / 56 184 / 201 5 / 2 N Kelsey St		6 / 5 2 / 5 21 / 8 Shannon Pkwy/Riverway
57 / 57 5 / 2 23 / 25		23 / 26 176 / 243 7 / 20

8

59 / 205 59 / 71 101 / 209 N Kelsey St		160 / 155 678 / 610 33 / 34 W Riggin Ave
161 / 108 583 / 688 33 / 35		13 / 45 71 / 64 23 / 32

9

43 / 103 80 / 173 90 / 179 N Kelsey St		155 / 60 384 / 275 140 / 67 W Goshen Ave
79 / 43 299 / 421 54 / 51		45 / 44 158 / 63 75 / 125

10

4 / 6 5 / 0 Future N Clancy St		29 / 15 Unnamed North Road
16 / 23		8 / 3

11

72 / 184 4 / 11 84 / 249 Future N Clancy St		W 236 / 84 796 / 602 8 / 12 W Riggin Ave
188 / 73 430 / 866 8 / 8		9 / 9 11 / 4 8 / 11

12

8 / 7 62 / 39 10 / 10 N Shirk St		14 / 5 116 / 27 74 / 35 Avenue 320
5 / 9 79 / 147 47 / 37		25 / 30 33 / 90 33 / 85

13

220 / 140 N Shirk St		Shannon Pkwy
3 / 0 16 / 23		23 / 15 111 / 217

14

43 / 53 237 / 431 85 / 204 N Shirk St		97 / 218 682 / 432 120 / 174 W Riggin Ave
79 / 133 317 / 693 182 / 336		382 / 217 286 / 422 68 / 177

15

30 / 7 480 / 847 90 / 147 N Shirk St		137 / 112 24 / 3 143 / 71 Ferguson Ave
8 / 69 3 / 42 31 / 95 W Sunnyview Ave		64 / 48 594 / 667 76 / 105

16

124 / 70 517 / 934 3 / 10 N Shirk St		7 / 3 31 / 19 219 / 85 W Doe Ave
52 / 127 4 / 24 52 / 235		187 / 81 655 / 683 65 / 159

17

136 / 104 621 / 977 83 / 152 N Shirk St		125 / 109 382 / 228 84 / 48 W Goshen Ave
62 / 157 210 / 430 184 / 246		223 / 111 784 / 596 103 / 83

18

588 / 1174 30 / 83 N Shirk St		64 / 79 79 / 48 W Hurley Ave
		1055 / 796 39 / 108

19

14 / 12 24 / 18 55 / 50 -		53 / 70 938 / 1028 94 / 51 W Riggin Ave
7 / 17 472 / 1067 19 / 59 N Roeben St		56 / 41 13 / 29 88 / 82

20

18 / 8 15 / 30 29 / 19 N Roeben St		10 / 38 241 / 157 69 / 84 W Ferguson Ave
12 / 24 124 / 249 8 / 17		14 / 7 20 / 48 59 / 128

21

0 / 1 0 / 1 N Akers St		1 / 1 140 / 79 61 / 69 Avenue 320
87 / 164 25 / 66		45 / 42 1 / 0 37 / 64

22

84 / 106 4 / 11 N Akers St		11 / 4 23 / 20 Future Shannon Pkwy
		65 / 106 8 / 22

23

163 / 100 404 / 137 251 / 116 N Akers St		240 / 117 741 / 631 195 / 112 W Riggin Ave
158 / 85 378 / 804 158 / 332		193 / 427 314 / 257 155 / 188

24

77 / 34 638 / 356 48 / 37 N Akers St		55 / 39 194 / 143 253 / 108 W Ferguson Ave
68 / 37 123 / 159 277 / 156		173 / 228 421 / 550 120 / 252

25

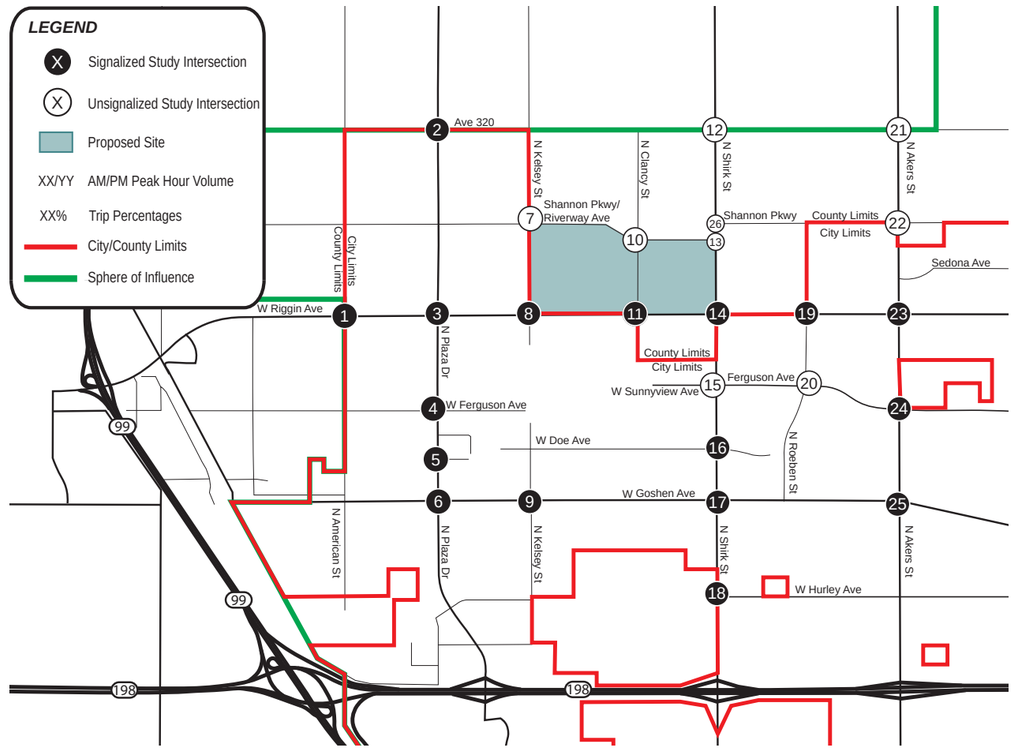
101 / 70 794 / 480 339 / 255 N Akers St		170 / 245 311 / 243 168 / 111 W Goshen Ave
51 / 134 257 / 449 45 / 83		227 / 188 527 / 861 162 / 149

26

196 / 119 3 / 7 N Shirk St		5 / 6 24 / 21 Shannon Pkwy
		101 / 189 10 / 28

LEGEND

- Signalized Study Intersection
- Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence



LONG-TERM (2038) CONDITIONS

Long-Term (2038) Conditions were evaluated because this represents 10-years after the opening of the full build-out of the Project, year 2038.

Long-Term (2038) Traffic Volumes

Long-Term (2038) traffic volumes were developed following the same methodology as Long-Term (2033), utilizing TCAG Regional Travel Demand Forecast Model plots, Furness methodology and balancing volumes with cumulative volumes within the study area. The same cumulative project traffic identified under Long-Term (2033) Conditions was included since there are no cumulative projects expected to be completed between Long-Term (2033) and Long-Term (2038) Conditions.

Long-Term (2038) peak hour turning movement volumes are presented on **Figure 31**. **Appendix L** contains the TCAG Model Plots and growth calculations.

Long-Term (2038) Lane Configuration and Control

Under Long-Term (2038) Conditions, no roadway improvements were assumed to occur within the study area between Near-Term (2028) Conditions and Long-Term (2038) Conditions. Therefore, only the Near-Term (2028) transportation conditions was assumed, as shown on **Figure 27**.

Long-Term (2038) Level of Service

Table 13 displays the intersection LOS analysis results under Long-Term (2038) Conditions, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)*

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term Conditions.

Long-Term (2038) Plus Project Build-out Level of Service

Long-Term (2038) Plus Project volumes are shown on **Figure 32**, and were determined by adding the Phase 3 (Buildout) Project Trip Assignment to the Long-Term (2038) Traffic Volumes. **Table 13** displays the intersection LOS analysis results under Long-Term (2038) Conditions Plus Project Build-out, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – AM and PM peak)*
- Intersection #23 – N Akers St & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)*

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term Plus Project Conditions.

FIGURE 31 LONG-TERM (2038) PEAK HOUR TURNING MOVEMENT VOLUMES

1

		716 / 762 21 / 61 W Riggin Ave
39 / 40 794 / 813 10 / 5 N American St	6 / 16	47 / 36

2

3 / 0 663 / 512 87 / 132 N Plaza Dr		117 / 76 59 / 60 106 / 88 Avenue 320
2 / 4 64 / 62 36 / 17	11 / 43 462 / 756 108 / 102	

3

271 / 270 537 / 450 65 / 106 N Plaza Dr		97 / 128 402 / 354 179 / 117 W Riggin Ave
257 / 285 306 / 445 253 / 121	85 / 210 445 / 695 76 / 172	

4

110 / 50 863 / 724 8 / 6 N Plaza Dr		0 / 15 18 / 40 W Ferguson Ave
22 / 108 0 / 2 60 / 161	184 / 95 663 / 902 14 / 32	

5

168 / 32 802 / 987 6 / 1 N Plaza Dr Driveway		1 / 3 1 / 7 Private Access Road
20 / 149 32 / 252	282 / 61 868 / 876 20 / 3	

6

52 / 99 599 / 838 189 / 262 N Plaza Dr		230 / 193 145 / 164 65 / 86 W Goshen Ave
92 / 101 176 / 243 229 / 245	190 / 169 873 / 700 73 / 65	

7

56 / 56 121 / 181 N Kelsey St		6 / 0 3 / 2 Shannon Pkwy/Riverway
57 / 57 5 / 19	17 / 8 157 / 181 1 / 1	

8

38 / 118 57 / 65 65 / 116 N Kelsey St		98 / 128 589 / 377 30 / 27 W Riggin Ave
69 / 85 345 / 598 38 / 51	13 / 56 65 / 62 7 / 27	

9

43 / 103 72 / 151 90 / 179 N Kelsey St		155 / 60 384 / 275 136 / 56 W Goshen Ave
79 / 50 299 / 421 50 / 40	34 / 40 135 / 66 64 / 121	

10

5 / 6 6 / 0 Future N Clancy St		8 / 0 Unnamed North Road
	8 / 3	

11

1 / 4 Future N Clancy St		1 / 5 695 / 535 6 / 7 W Riggin Ave
362 / 766 6 / 2	3 / 7	3 / 9

12

8 / 7 62 / 39 10 / 11 N Shirk St		14 / 8 103 / 26 31 / 19 Avenue 320
5 / 9 75 / 146 33 / 31	19 / 16 33 / 90 17 / 43	

13

163 / 118 N Shirk St		Shannon Pkwy
4 / 0	89 / 161	

14

39 / 44 161 / 233 31 / 121 N Shirk St		54 / 200 524 / 379 120 / 174 W Riggin Ave
25 / 95 301 / 579 120 / 151	174 / 146 103 / 354 68 / 177	

15

33 / 9 366 / 528 67 / 81 N Shirk St		70 / 88 26 / 4 143 / 71 Ferguson Ave
9 / 78 3 / 46 35 / 101 W Sunnyview Ave	65 / 55 270 / 551 76 / 105	

16

116 / 53 411 / 638 3 / 12 N Shirk St		7 / 3 34 / 25 232 / 99 W Doe Ave
32 / 119 6 / 33 58 / 254	191 / 88 353 / 575 76 / 192	

17

132 / 93 527 / 713 75 / 130 N Shirk St		102 / 101 382 / 228 84 / 48 W Goshen Ave
51 / 153 210 / 430 184 / 246	223 / 111 515 / 500 103 / 83	

18

494 / 910 30 / 83 N Shirk St		64 / 79 87 / 56 W Hurley Ave
	786 / 700 43 / 123	

19

14 / 12 24 / 18 55 / 50 -		53 / 70 748 / 961 101 / 60 W Riggin Ave
7 / 17 405 / 880 15 / 48 N Roeben St	45 / 37 13 / 29 93 / 103	

20

20 / 9 21 / 40 31 / 21 N Roeben St		11 / 40 185 / 137 82 / 97 W Ferguson Ave
13 / 25 105 / 194 4 / 7	4 / 4 26 / 69 67 / 159	

21

0 / 1 0 / 1 N Akers St		1 / 1 95 / 63 61 / 69 Avenue 320
71 / 120 26 / 71	41 / 46 1 / 0 37 / 64	

22

84 / 106 N Akers St		0 / 14 Future Shannon Pkwy
	71 / 124	

23

140 / 92 404 / 137 251 / 116 N Akers St		240 / 117 596 / 580 195 / 112 W Riggin Ave
150 / 63 327 / 662 150 / 310	170 / 419 314 / 257 155 / 188	

24

77 / 34 630 / 334 48 / 37 N Akers St		55 / 39 171 / 135 253 / 108 W Ferguson Ave
68 / 37 115 / 148 265 / 130	140 / 216 398 / 542 120 / 252	

25

101 / 70 786 / 458 329 / 228 N Akers St		143 / 235 282 / 233 168 / 111 W Goshen Ave
51 / 134 247 / 421 45 / 83	227 / 188 504 / 853 162 / 149	

26

139 / 97 3 / 7 N Shirk St		5 / 6 24 / 21 Shannon Pkwy
	79 / 133 10 / 28	

LEGEND

- (X) Signalized Study Intersection
- (X) Unsignalized Study Intersection
- Proposed Site
- XX/YY AM/PM Peak Hour Volume
- XX% Trip Percentages
- City/County Limits
- Sphere of Influence

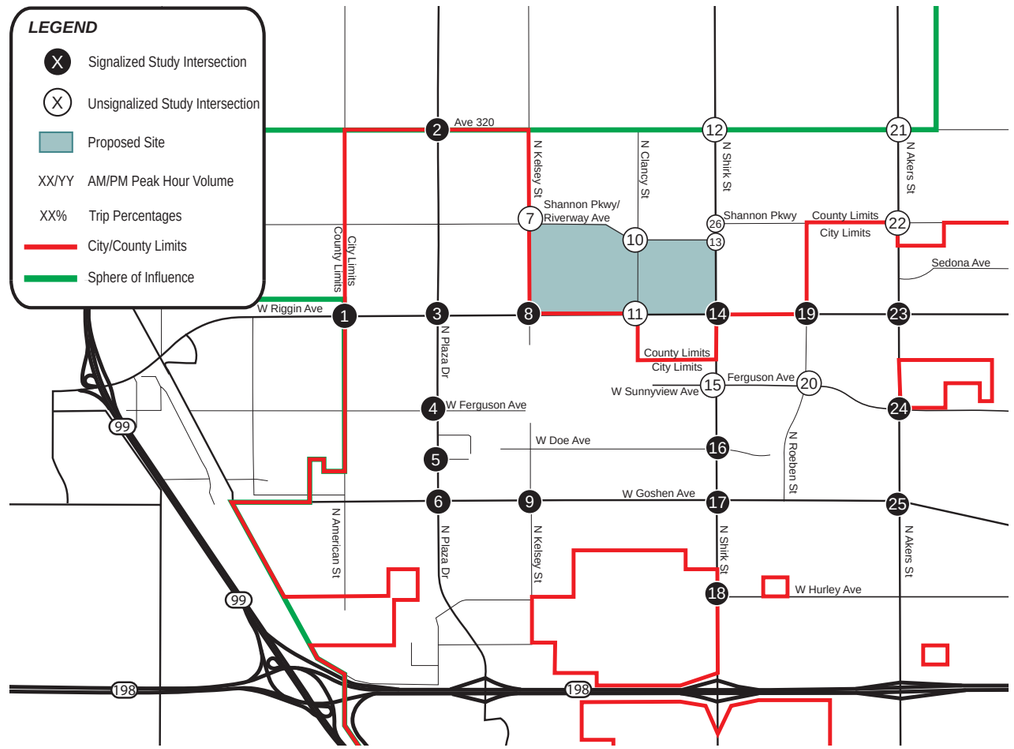


TABLE 14 LONG-TERM (2038) INTERSECTION LEVEL OF SERVICE SUMMARY

LONG-TERM (2038)
INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	JURISDICTION	TRAFFIC CONTROL	PEAK HOUR	LONG-TERM (2038) CONDITIONS		LONG-TERM (2038) CONDITIONS PLUS PROJECT BUILD-OUT		
					DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (Δ)
1	N American St & W Riggin Ave	City/County	Signal	AM	11.3	B	12.5	B	1.2
				PM	12.2	B	13.2	B	1.0
2	N Plaza Drive & Avenue 320	City/County	Signal	AM	13.0	B	14.2	B	1.2
				PM	13.8	B	15.7	B	1.9
3	N Plaza Drive & W Riggin Ave	City	Signal	AM	40.7	D	41.9	D	1.2
				PM	43.8	D	48.9	D	5.1
4	N Plaza Dr & W Ferguson Ave	City	Signal	AM	40.1	D	42.3	D	2.2
				PM	36.7	D	39.2	D	2.5
5	N Plaza Dr & Private Access Road	City	Signal	AM	53.2	D	52.9	D	-0.3
				PM	16.3	B	19.3	B	3.0
6	N Plaza Dr & W Goshen Ave	City	Signal	AM	47.4	D	54.7	D	7.3
				PM	49.6	D	54.7	D	5.1
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	City/County	Two-Way Stop	AM	12.0	B	13.8	B	1.8
				PM	7.3	A	14.6	B	7.3
8	N Kelsey St & W Riggin Ave	City/County	Signal	AM	9.8	A	11.3	B	1.5
				PM	12.1	B	14.0	B	1.9
9	N Kelsey St & W Goshen Ave	City	Signal	AM	21.3	C	22.8	C	1.5
				PM	34.5	C	37.6	D	3.1
10	Future N Clancy St & Unnamed North Road	County	One-Way Stop	AM	8.9	A	9.3	A	0.4
				PM	0.0	A	0.0	A	0.0
11	Future N Clancy St & W Riggin Ave	City/County	Two-Way Stop/Signal	AM	24.1	C	18.5	B	-5.6
				PM	24.5	C	20.7	C	-3.8
12	N Shirk St & Avenue 320	County	All-Way Stop	AM	9.1	A	11.2	B	2.1
				PM	9.3	A	9.3	A	0.0
13	N Shirk St & Shannon Pkwy	County	Two-Way Stop	AM	11.5	B	11.2	B	-0.3
				PM	0.0	A	9.3	A	9.3
14	N Shirk St & W Riggin Ave	City/County	Signal	AM	17.8	B	28.9	C	11.1
				PM	23.1	C	31.0	C	7.9
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	City	All-Way Stop	AM	17.9	C	75.6	**F**	57.7
				PM	121.8	**F**	ECL	**F**	>5.0
16	N Shirk St & W Doe Ave	City	Signal	AM	20.1	C	20.5	C	0.4
				PM	21.3	C	25.2	C	3.9
17	N Shirk St & W Goshen Ave	City	Signal	AM	37.3	D	40.6	D	3.3
				PM	34.4	C	40.8	D	6.4
18	N Shirk St & W Hurley Ave	City/County	Signal	AM	19.8	B	24.2	C	4.4
				PM	15.6	B	15.8	B	0.2
19	N Roeben St & W Riggin Ave	City/County	Signal	AM	17.0	B	17.0	B	0.0
				PM	16.5	B	17.0	B	0.5
20	N Roeben St & W Ferguson Ave	City	Two-Way Stop	AM	18.9	C	22.5	C	3.6
				PM	23.3	C	28.2	D	4.9
21	N Akers St & Avenue 320	County	Two-Way Stop	AM	10.9	B	12.0	B	1.1
				PM	11.4	B	12.3	B	0.9
22	N Akers St & Future Shannon Parkway	County	Two-Way Stop	AM	0.0	A	9.7	A	9.7
				PM	10.2	B	10.4	B	0.2
23	N Akers St & W Riggin Ave	City	Signal	AM	102.1	**F**	132.7	**F**	30.6
				PM	ECL	**F**	ECL	**F**	>5.0
24	N Akers St & W Ferguson Ave	City/County	Signal	AM	58.3	**E**	64.6	**E**	6.3
				PM	40.2	D	41.0	D	0.8
25	N Akers St & W Goshen Ave	City	Signal	AM	51.5	D	51.9	D	0.4
				PM	41.3	D	43.1	D	1.8
26	N Shirk St & Shannon Parkway	County	Two-Way Stop	AM	10.8	B	11.8	B	1.0
				PM	10.2	B	10.9	B	0.7

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Editio* n and performed using Synchro 11.0
City - City of Visalia
County - Tulare County

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FIGURE 32 LONG-TERM (2038) PLUS PROJECT BUILD-OUT PEAK HOUR TURNING MOVEMENT VOLUMES

1

		755 / 871 29 / 83 **W Riggin Ave**
39 / 40 906 / 853 10 / 5 **N American St**	6 / 16	70 / 44

2

3 / 0 673 / 516 133 / 148 **N Plaza Dr**		132 / 122 59 / 60 106 / 88 **Avenue 320**
2 / 4 64 / 62 36 / 17	11 / 43 466 / 765 108 / 102	

3

271 / 270 537 / 450 75 / 110 **N Plaza Dr**		101 / 137 449 / 486 246 / 304 **W Riggin Ave**
257 / 285 440 / 493 253 / 121	85 / 210 445 / 695 266 / 239	

4

110 / 50 930 / 911 8 / 6 **N Plaza Dr**		0 / 15 18 / 40 **W Ferguson Ave**
22 / 108 0 / 2 60 / 161	184 / 95 853 / 969 14 / 32	

5

168 / 32 869 / 1174 6 / 1 **N Plaza Dr**		1 / 3 1 / 7 **Private Access Road**
20 / 149 32 / 252 **Driveway**	282 / 61 ### / 943 20 / 3	

6

56 / 110 657 / 1003 193 / 273 **N Plaza Dr**		241 / 197 145 / 164 65 / 86 **W Goshen Ave**
103 / 105 176 / 243 229 / 245	190 / 169 ### / 759 73 / 65	

7

56 / 56 184 / 201 5 / 2 **N Kelsey St**		8 / 5 2 / 5 22 / 8 **Shannon Pkwy/Riverway**
57 / 57 5 / 2 23 / 25	23 / 26 176 / 243 7 / 20	

8

66 / 213 59 / 71 101 / 209 **N Kelsey St**		160 / 155 678 / 610 36 / 42 **W Riggin Ave**
165 / 114 583 / 688 38 / 51	13 / 56 71 / 64 23 / 33	

9

43 / 103 80 / 173 90 / 179 **N Kelsey St**		155 / 60 384 / 275 140 / 67 **W Goshen Ave**
79 / 50 299 / 421 54 / 51	45 / 44 158 / 74 75 / 125	

10

5 / 6 6 / 0 **Future N Clancy St**		31 / 15 **Unnamed North Road**
16 / 23	8 / 3	

11

72 / 184 4 / 11 84 / 249 **Future N Clancy St**		236 / 84 796 / 602 8 / 12 **W Riggin Ave**
188 / 73 430 / 866 8 / 8	9 / 9 11 / 4 8 / 11	

12

8 / 7 62 / 39 10 / 11 **N Shirk St**		14 / 8 116 / 30 74 / 35 **Avenue 320**
5 / 9 79 / 159 47 / 37	25 / 30 33 / 90 33 / 85	

13

220 / 140 **N Shirk St**		**Shannon Pkwy**
4 / 0 16 / 23	23 / 15 111 / 217	

14

43 / 53 237 / 431 85 / 204 **N Shirk St**		97 / 218 682 / 432 120 / 174 **W Riggin Ave**
79 / 133 317 / 693 182 / 336	382 / 217 286 / 422 68 / 177	

15

33 / 9 480 / 847 90 / 147 **N Shirk St**		137 / 112 26 / 4 143 / 71 **Ferguson Ave**
9 / 78 3 / 46 35 / 101 **W Sunnyview Ave**	65 / 55 594 / 667 76 / 105	

16

124 / 75 517 / 934 3 / 12 **N Shirk St**		7 / 3 34 / 25 232 / 99 **W Doe Ave**
55 / 127 6 / 33 58 / 254	191 / 88 655 / 683 76 / 192	

17

136 / 104 621 / 977 83 / 152 **N Shirk St**		125 / 109 382 / 228 84 / 48 **W Goshen Ave**
62 / 157 210 / 430 184 / 246	223 / 111 784 / 596 103 / 83	

18

588 / 1174 30 / 83 **N Shirk St**		64 / 79 87 / 56 **W Hurley Ave**
	1055 / 796 43 / 123	

19

14 / 12 24 / 18 55 / 50 -		53 / 70 938 / 1028 101 / 60 **W Riggin Ave**
7 / 17 472 / 1067 19 / 59 **N Roeben St**	56 / 41 13 / 29 93 / 103	

20

20 / 9 21 / 40 31 / 21 **N Roeben St**		11 / 40 241 / 157 82 / 97 **W Ferguson Ave**
13 / 25 124 / 249 8 / 18	15 / 8 26 / 69 67 / 159	

21

0 / 1 0 / 1 **N Akers St**		1 / 1 140 / 79 61 / 69 **Avenue 320**
87 / 164 30 / 82	52 / 50 1 / 0 37 / 64	

22

84 / 106 4 / 11 **N Akers St**		11 / 4 23 / 22 **Future Shannon Pkwy**
	71 / 124 8 / 22	

23

163 / 100 404 / 137 251 / 116 **N Akers St**		240 / 117 741 / 631 195 / 112 **W Riggin Ave**
158 / 85 378 / 804 158 / 332	193 / 427 314 / 257 155 / 188	

24

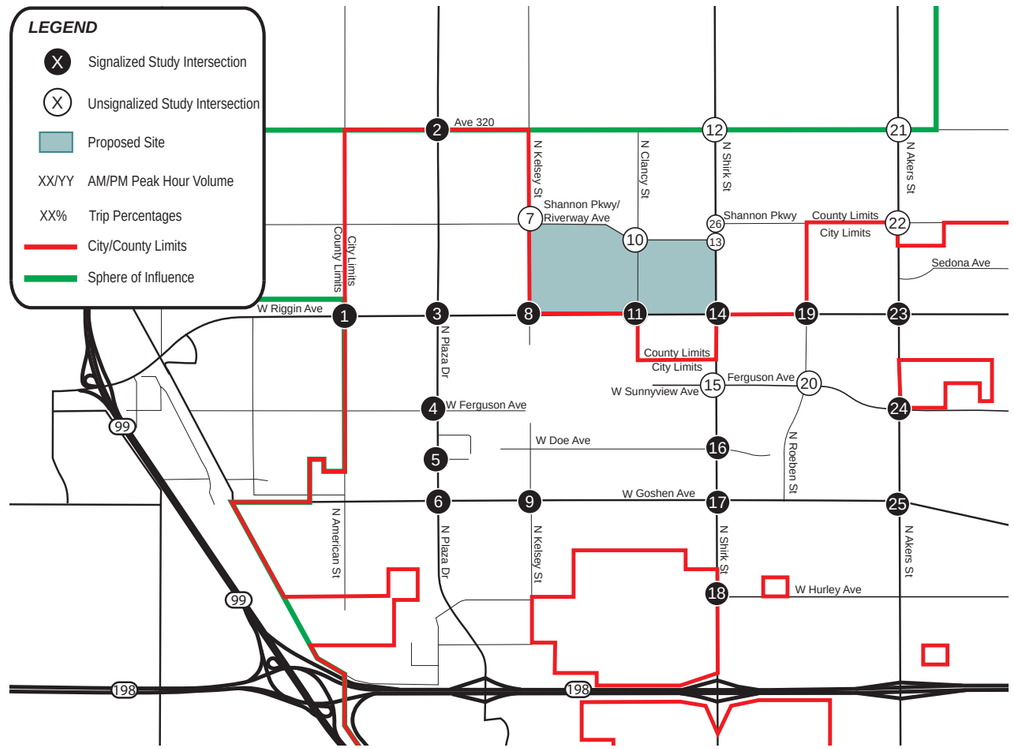
77 / 34 638 / 356 48 / 37 **N Akers St**		55 / 39 194 / 143 253 / 108 **W Ferguson Ave**
68 / 37 123 / 170 277 / 163	173 / 228 421 / 550 120 / 252	

25

101 / 70 794 / 480 339 / 255 **N Akers St**		170 / 245 311 / 243 168 / 111 **W Goshen Ave**
51 / 134 257 / 449 45 / 83	227 / 188 527 / 861 162 / 149	

26

196 / 119 3 / 7 **N Shirk St**		5 / 6 24 / 21 **Shannon Pkwy**
	101 / 189 10 / 28	



LONG-TERM (2048) CONDITIONS

Long-Term (2048) Conditions were evaluated because this represents 20-years after the opening of the full build-out of the proposed project, year 2048.

Long-Term (2048) Traffic Volumes

Long-Term (2048) traffic volumes were developed following the same methodology as Long-Term (2033), utilizing TCAG Regional Travel Demand Forecast Model plots, Furness methodology and balancing volumes with cumulative volumes within the study area. Since the current TCAG travel demand model only forecast out to 2042, the traffic model was extrapolated to project out an additional six years to 2048. These volumes were then adjusted to ensure that each individual Long-Term intersection turning movement traffic volume was greater than or equal to the Long-Term (2038) traffic volumes plus the addition of traffic generated by the CASP – Phase 4 development, which is assumed to be complete prior to 2048. This volume adjustment ensures the Long-Term (2048) volumes include all known cumulative project volumes expected. The CASP – Phase 4 traffic is summarized below.

Cumulative Project Assumed for Long-Term (2048) Conditions

Project	Project Description	Trip Generation	AM Peak	PM Peak	Status
*Carlton Acres Specific Plan – Phase 4 (SPR 22-071/073)	Portion of 507-AC Mixed Use Development	ITE (LU 210, 220, 520 & 821) – 8,724 ADT	419 IB / 528 OB	411 IB / 307 OB	Approved

*Trip generation, distribution and assignments obtained from development team.

Appendix H contains detailed information and calculations related to the development of cumulative traffic volumes, including documentation of trip generation/distribution/assignment assumptions. Long-Term (2048) peak hour turning movement volumes are presented on **Figure 33**. **Appendix L** contains the TCAG Model Plots and growth calculations.

Long-Term (2048) Lane Configuration and Control

Under Long-Term (2048) Conditions, no roadway improvements were assumed to occur within the study area between Near-Term (2028) Conditions and Long-Term (2048) Conditions. Therefore, only the Near-Term (2028) transportation conditions was assumed, as shown on **Figure 27**.

Long-Term (2048) Level of Service

Table 14 displays the intersection LOS analysis results under Long-Term (2048) Conditions, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – PM peak)*
- Intersection #20 – N Roeben St & W Ferguson Ave (LOS E – PM peak)
- Intersection #23 – N Akers St & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)*

Appendix G contains the intersection LOS calculation worksheets.
*Intersection operates deficiently under Near-Term Conditions.

FIGURE 33 LONG-TERM (2048) PEAK HOUR TURNING MOVEMENT VOLUMES

1

		729 / 768 25 / 61 W Riggin Ave
39 / 40 801 / 822 12 / 6 N American St	7 / 20	48 / 40

2

4 / 0 663 / 512 109 / 178 N Plaza Dr		136 / 102 59 / 60 106 / 88 Avenue 320
2 / 6 64 / 62 36 / 17	11 / 43 462 / 756 108 / 102	

3

271 / 270 537 / 450 66 / 107 N Plaza Dr		97 / 127 416 / 359 182 / 118 W Riggin Ave
257 / 285 313 / 454 253 / 121	85 / 210 445 / 695 78 / 174	

4

111 / 50 865 / 725 11 / 9 N Plaza Dr		0 / 18 24 / 47 W Ferguson Ave
27 / 109 0 / 3 60 / 161	184 / 95 663 / 903 18 / 42	

5

168 / 32 804 / 988 6 / 1 N Plaza Dr		1 / 3 1 / 7 Private Access Road
20 / 149 32 / 252	282 / 61 868 / 877 20 / 3	

6

52 / 99 600 / 838 189 / 262 N Plaza Dr		230 / 193 145 / 164 65 / 86 W Goshen Ave
92 / 101 176 / 243 229 / 245	190 / 169 873 / 700 73 / 65	

7

56 / 56 121 / 181 N Kelsey St		8 / 0 4 / 2 Shannon Pkwy/Riverway
57 / 57 5 / 19	17 / 8 157 / 181 1 / 1	

8

52 / 134 57 / 65 66 / 117 N Kelsey St		99 / 129 607 / 384 42 / 43 W Riggin Ave
76 / 100 354 / 610 49 / 81	13 / 78 65 / 62 8 / 42	

9

48 / 103 72 / 157 90 / 179 N Kelsey St		155 / 60 384 / 276 136 / 56 W Goshen Ave
79 / 63 299 / 421 50 / 40	34 / 40 135 / 90 64 / 121	

10

6 / 8 9 / 0 Future N Clancy St		13 / 0 Unnamed North Road
	8 / 3	

11

1 / 3 Future N Clancy St		2 / 6 716 / 544 7 / 8 W Riggin Ave
373 / 780 6 / 2	3 / 7	4 / 10

12

8 / 7 62 / 40 17 / 20 N Shirk St		22 / 20 106 / 30 33 / 21 Avenue 320
5 / 9 87 / 173 34 / 31	19 / 16 35 / 90 25 / 57	

13

195 / 141 N Shirk St		Shannon Pkwy
6 / 0	110 / 187	

14

51 / 48 173 / 186 38 / 126 N Shirk St		63 / 210 537 / 385 123 / 171 W Riggin Ave
28 / 95 305 / 589 120 / 151	174 / 146 108 / 356 68 / 176	

15

39 / 12 378 / 487 69 / 72 N Shirk St		70 / 87 30 / 6 143 / 71 Ferguson Ave
11 / 96 4 / 53 42 / 110 W Sunnyview Ave	68 / 67 274 / 552 76 / 105	

16

116 / 61 423 / 597 4 / 16 N Shirk St		7 / 3 41 / 39 258 / 125 W Doe Ave
36 / 119 9 / 54 71 / 292	206 / 102 357 / 576 98 / 255	

17

133 / 88 536 / 685 78 / 122 N Shirk St		103 / 101 382 / 228 84 / 48 W Goshen Ave
51 / 152 210 / 430 184 / 246	223 / 111 518 / 501 103 / 83	

18

501 / 888 31 / 77 N Shirk St		64 / 79 100 / 73 W Hurley Ave
	788 / 700 49 / 150	

19

19 / 15 35 / 25 81 / 74 -		96 / 101 777 / 981 115 / 76 W Riggin Ave
10 / 23 428 / 899 15 / 47 N Roeben St	45 / 38 21 / 39 103 / 145	

20

22 / 10 32 / 62 34 / 24 N Roeben St		12 / 45 185 / 137 107 / 121 W Ferguson Ave
14 / 26 105 / 194 5 / 8	4 / 5 38 / 111 82 / 217	

21

0 / 1 0 / 1 N Akers St		1 / 1 117 / 87 66 / 94 Avenue 320
98 / 147 38 / 103	54 / 60 2 / 0 44 / 69	

22

92 / 141 N Akers St		0 / 17 Future Shannon Pkwy
	90 / 159	

23

150 / 100 459 / 191 304 / 188 N Akers St		302 / 144 630 / 612 195 / 112 W Riggin Ave
157 / 69 357 / 686 198 / 344	214 / 465 366 / 283 155 / 200	

24

80 / 36 664 / 349 51 / 39 N Akers St		56 / 40 171 / 135 253 / 108 W Ferguson Ave
69 / 38 115 / 171 265 / 144	140 / 216 417 / 563 120 / 252	

25

105 / 72 804 / 466 340 / 233 N Akers St		148 / 242 282 / 233 168 / 111 W Goshen Ave
52 / 135 247 / 416 45 / 78	227 / 187 515 / 865 162 / 149	

26

160 / 110 5 / 9 N Shirk St		9 / 10 35 / 31 Shannon Pkwy
	92 / 148 19 / 39	

LEGEND

- X — Signalized Study Intersection
- X — Unsignalized Study Intersection
- Proposed Site
- XX/YY — AM/PM Peak Hour Volume
- XX% — Trip Percentages
- City/County Limits
- Sphere of Influence

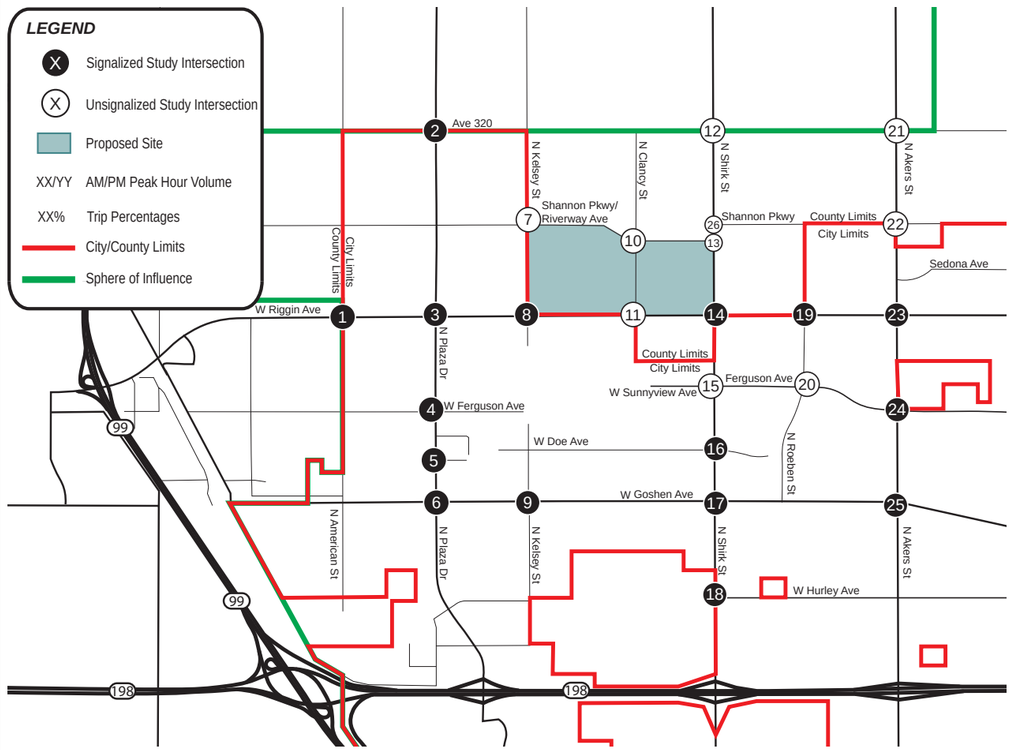


TABLE 15 LONG-TERM (2048) INTERSECTION LEVEL OF SERVICE SUMMARY

LONG-TERM (2048)
INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	JURISDICTION	TRAFFIC CONTROL	PEAK HOUR	LONG-TERM (2048) CONDITIONS		LONG-TERM (2048) CONDITIONS PLUS PROJECT BUILD-OUT		
					DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (△)
1	N American St & W Riggin Ave	City/County	Signal	AM	11.6	B	12.8	B	1.2
				PM	12.3	B	13.3	B	1.0
2	N Plaza Drive & Avenue 320	City/County	Signal	AM	13.9	B	15.1	B	1.2
				PM	15.9	B	18.2	B	2.3
3	N Plaza Drive & W Riggin Ave	City	Signal	AM	40.8	D	42.1	D	1.3
				PM	43.8	D	49.1	D	5.3
4	N Plaza Dr & W Ferguson Ave	City	Signal	AM	41.0	D	43.2	D	2.2
				PM	37.1	D	39.7	D	2.6
5	N Plaza Dr & Private Access Road	City	Signal	AM	53.2	D	53.0	D	-0.2
				PM	16.4	B	19.3	B	2.9
6	N Plaza Dr & W Goshen Ave	City	Signal	AM	47.4	D	54.7	D	7.3
				PM	49.6	D	54.7	D	5.1
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	City/County	Two-Way Stop	AM	12.1	B	13.8	B	1.7
				PM	7.3	A	14.6	B	7.3
8	N Kelsey St & W Riggin Ave	City/County	Signal	AM	10.4	B	11.8	B	1.4
				PM	12.9	B	15.6	B	2.7
9	N Kelsey St & W Goshen Ave	City	Signal	AM	21.4	C	22.9	C	1.5
				PM	36.1	D	39.3	D	3.2
10	Future N Clancy St & Unnamed North Road	County	One-Way Stop	AM	9.0	A	9.4	A	0.4
				PM	0.0	A	0.0	A	0.0
11	Future N Clancy St & W Riggin Ave	City/County	Two-Way Stop/Signal	AM	25.2	D	18.6	B	-6.6
				PM	25.1	D	20.8	C	-4.3
12	N Shirk St & Avenue 320	County	All-Way Stop	AM	9.4	A	12.3	B	2.9
				PM	9.9	A	9.4	A	-0.5
13	N Shirk St & Shannon Pkwy	County	Two-Way Stop	AM	12.4	B	12.3	B	-0.1
				PM	0.0	A	9.4	A	9.4
14	N Shirk St & W Riggin Ave	City/County	Signal	AM	18.3	B	29.8	C	11.5
				PM	22.7	C	31.1	C	8.4
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	City	All-Way Stop	AM	19.1	C	84.9	**F**	65.8
				PM	122.0	**F**	ECL	**F**	>5.0
16	N Shirk St & W Doe Ave	City	Signal	AM	22.5	C	23.5	C	1.0
				PM	24.7	C	30.5	C	5.8
17	N Shirk St & W Goshen Ave	City	Signal	AM	37.6	D	41.0	D	3.4
				PM	34.5	C	39.8	D	5.3
18	N Shirk St & W Hurley Ave	City/County	Signal	AM	20.1	C	24.6	C	4.5
				PM	15.7	B	15.8	B	0.1
19	N Roeben St & W Riggin Ave	City/County	Signal	AM	17.1	B	17.1	B	0.0
				PM	18.5	B	19.3	B	0.8
20	N Roeben St & W Ferguson Ave	City	Two-Way Stop	AM	24.8	C	31.2	D	6.4
				PM	39.4	**E**	57.3	**F**	17.9
21	N Akers St & Avenue 320	County	Two-Way Stop	AM	12.1	B	13.5	B	1.4
				PM	13.4	B	14.9	B	1.5
22	N Akers St & Future Shannon Parkway	County	Two-Way Stop	AM	0.0	A	10.0	B	10.0
				PM	10.8	B	11.1	B	0.3
23	N Akers St & W Riggin Ave	City	Signal	AM	148.6	**F**	ECL	**F**	>5.0
				PM	ECL	**F**	ECL	**F**	>5.0
24	N Akers St & W Ferguson Ave	City/County	Signal	AM	61.9	**E**	69.3	**E**	7.4
				PM	40.9	D	42.1	D	1.2
25	N Akers St & W Goshen Ave	City	Signal	AM	52.4	D	52.9	D	0.5
				PM	41.9	D	43.8	D	1.9
26	N Shirk St & Shannon Parkway	County	Two-Way Stop	AM	11.5	B	12.7	B	1.2
				PM	10.6	B	11.3	B	0.7

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Editio*n and performed using Synchro 11.0
City - City of Visalia
County - Tulare County

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Long-Term (2048) Plus Project Build-out Level of Service

Long-Term (2048) Plus Project volumes are shown on **Figure 34**, and were determined by adding the Phase 3 (Buildout) Project Trip Assignment to the Long-Term (2048) Traffic Volumes. **Table 13** displays the intersection LOS analysis results under Long-Term (2048) Conditions Plus Project Build-out, showing all intersections are expected to operate at LOS D or better during the commuter peak periods with the exception of:

- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave (LOS F – AM and PM peak)*
- Intersection #20 – N Roeben St & W Ferguson Ave (LOS F – PM peak)
- Intersection #23 – N Akers St & W Riggin Ave (LOS F – AM and PM peak)*
- Intersection #24 – N Akers St & W Ferguson Ave (LOS E – AM peak)*

Appendix G contains the intersection LOS calculation worksheets.

*Intersection operates deficiently under Near-Term Plus Project Conditions.

FIGURE 34 LONG-TERM (2048) PLUS PROJECT BUILD-OUT PEAK HOUR TURNING MOVEMENT VOLUMES

1

	768 / 877 33 / 83 W Riggin Ave	
39 / 40 913 / 862 12 / 6 N American St	7 / 20	71 / 48

2

4 / 0 673 / 516 155 / 194 N Plaza Dr	151 / 148 59 / 60 106 / 88 Avenue 320	
2 / 6 64 / 62 36 / 17	11 / 43	466 / 765 108 / 102

3

271 / 270 537 / 450 76 / 111 N Plaza Dr	101 / 136 463 / 491 249 / 305 W Riggin Ave	
257 / 285 447 / 502 253 / 121	85 / 210	445 / 695 268 / 241

4

111 / 50 932 / 912 11 / 9 N Plaza Dr	0 / 18 24 / 47 W Ferguson Ave	
27 / 109 0 / 3 60 / 161	184 / 95	853 / 970 18 / 42

5

168 / 32 871 / 1175 6 / 1 N Plaza Dr	1 / 3 1 / 7 Private Access Road	
Driveway 20 / 149 32 / 252	282 / 61	### / 944 20 / 3

6

56 / 110 658 / 1003 193 / 273 N Plaza Dr	241 / 197 145 / 164 65 / 86 W Goshen Ave	
103 / 105 176 / 243 229 / 245	190 / 169	### / 759 73 / 65

7

56 / 56 184 / 201 5 / 2 N Kelsey St	10 / 5 2 / 5 23 / 8 Shannon Pkwy/Riverway	
57 / 57 5 / 2 23 / 25	23 / 26	176 / 243 7 / 20

8

80 / 229 59 / 71 102 / 210 N Kelsey St	161 / 156 696 / 617 48 / 58 W Riggin Ave	
172 / 129 592 / 700 49 / 81	13 / 78	71 / 64 24 / 48

9

48 / 103 80 / 179 90 / 179 N Kelsey St	155 / 60 384 / 276 140 / 67 W Goshen Ave	
79 / 63 299 / 421 54 / 51	45 / 44	158 / 98 75 / 125

10

6 / 8 9 / 0 Future N Clancy St	36 / 15 Unnamed North Road	
16 / 23		8 / 3

11

72 / 184 4 / 11 84 / 248 Future N Clancy St	237 / 85 817 / 611 9 / 13 W Riggin Ave	
188 / 73 441 / 880 8 / 8	9 / 9	11 / 4 9 / 12

12

8 / 7 62 / 40 17 / 20 N Shirk St	22 / 20 119 / 34 76 / 37 Avenue 320	
5 / 9 91 / 186 48 / 37	25 / 30	35 / 90 41 / 99

13

252 / 163 N Shirk St	Shannon Pkwy	
6 / 0 16 / 23	23 / 15	132 / 243

14

55 / 57 249 / 384 92 / 209 N Shirk St	106 / 228 695 / 438 123 / 171 W Riggin Ave	
82 / 133 321 / 703 182 / 336	382 / 217	291 / 424 68 / 176

15

39 / 12 492 / 806 92 / 138 N Shirk St	137 / 111 30 / 6 143 / 71 Ferguson Ave	
W Sunnyview Ave 11 / 96 4 / 53 42 / 110	68 / 67	598 / 668 76 / 105

16

124 / 83 529 / 893 4 / 16 N Shirk St	7 / 3 41 / 39 258 / 125 W Doe Ave	
59 / 127 9 / 54 71 / 292	206 / 102	659 / 684 98 / 255

17

137 / 99 630 / 949 86 / 144 N Shirk St	126 / 109 382 / 228 84 / 48 W Goshen Ave	
62 / 156 210 / 430 184 / 246	223 / 111	787 / 597 103 / 83

18

595 / 1152 31 / 77 N Shirk St	64 / 79 100 / 73 W Hurley Ave	
	1057 / 796	49 / 150

19

19 / 15 35 / 25 81 / 74 -	96 / 101 967 / 1048 115 / 76 W Riggin Ave	
10 / 23 495 / 1086 19 / 58 N Roeben St	56 / 42	21 / 39 103 / 145

20

22 / 10 32 / 62 34 / 24 N Roeben St	12 / 45 241 / 157 107 / 121 W Ferguson Ave	
14 / 26 124 / 249 9 / 19	15 / 9	38 / 111 82 / 217

21

0 / 1 0 / 1 N Akers St	1 / 1 162 / 103 66 / 94 Avenue 320	
114 / 191 42 / 114	65 / 64	2 / 0 44 / 69

22

92 / 141 4 / 11 N Akers St	11 / 4 23 / 25 Future Shannon Pkwy	
	90 / 159	8 / 22

23

173 / 108 459 / 191 304 / 188 N Akers St	302 / 144 775 / 663 195 / 112 W Riggin Ave	
165 / 91 408 / 828 206 / 366	237 / 473	366 / 283 155 / 200

24

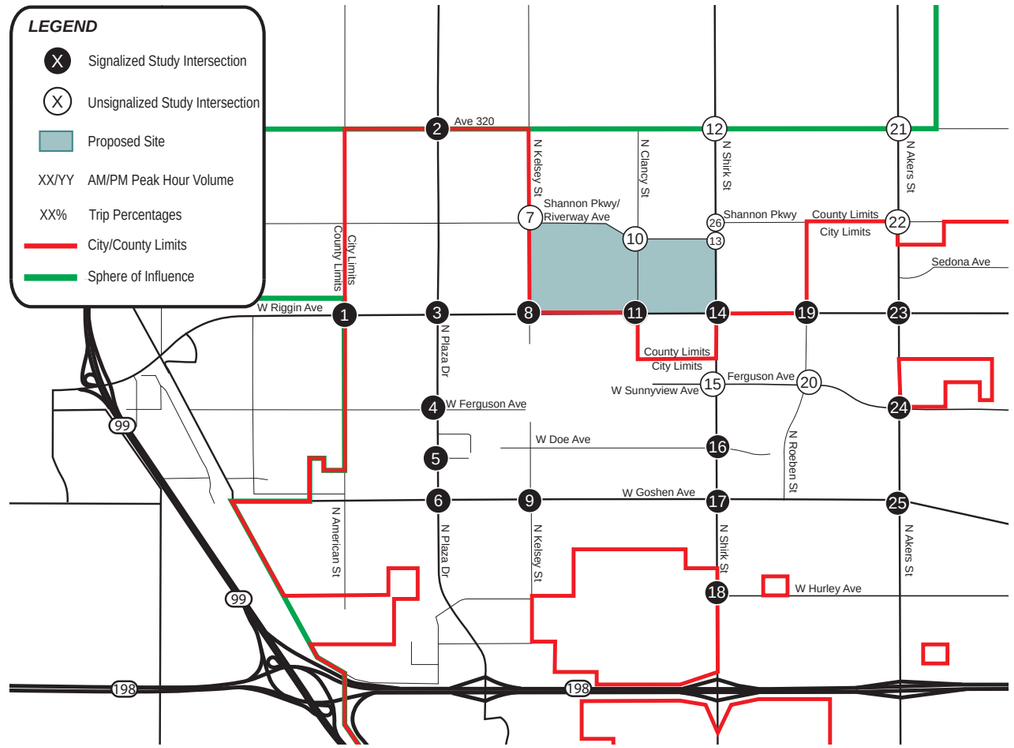
80 / 36 672 / 371 51 / 39 N Akers St	56 / 40 194 / 143 253 / 108 W Ferguson Ave	
69 / 38 123 / 193 277 / 177	173 / 228	440 / 571 120 / 252

25

105 / 72 812 / 488 350 / 260 N Akers St	175 / 252 311 / 243 168 / 111 W Goshen Ave	
52 / 135 257 / 444 45 / 78	227 / 187	538 / 873 162 / 149

26

217 / 132 5 / 9 N Shirk St	9 / 10 35 / 31 Shannon Pkwy	
	114 / 204	19 / 39



SIGNAL WARRANT

Traffic signals may be justified when one or more signal warrants is satisfied. Intersection turning movement traffic volumes at ten (10) unsignalized intersections that are currently not planned for signalization were compared against the 8-hour, 4-hour and peak-hour warrants in the *2014 California Manual on Uniform Traffic Control Devices (CA MUTCD)*[11]. The expected traffic volumes for the Near-Term (2025), (2026) and (2028) Conditions, and Near-Term (2025) Conditions Plus Phase 1, Near-Term (2026) Conditions Plus Phase 2, and Near-Term (2028) Conditions Plus Project Build-Out were evaluated for the unsignalized intersection locations for the hours of 6 AM – 6PM.

Traffic Signal Warrant #1 – Eight Hour Vehicular Volume is satisfied when traffic volumes on the major and minor approaches exceed thresholds for eight hours of the day. This warrant typically applies at locations where a large volume of intersection traffic is the principal reason to consider installing a traffic control signal or when traffic volumes on a major street are so heavy that traffic on the minor street suffers excessive delay or conflict in entering or crossing the major street.

Traffic Signal Warrant #2 – Four Hour Vehicular Volume is satisfied when traffic volumes on the major and minor approaches exceed thresholds for four hours of the day. This warrant typically applies at locations where a large volume of intersection traffic is the principal reason to consider installing a traffic control signal or when traffic volumes on a major street are so heavy that traffic on the minor street suffers excessive delay or conflict in entering or crossing the major street.

Traffic Signal Warrant #3 – Peak Hour Vehicular Volume is satisfied when traffic volumes on the major and minor approaches exceed thresholds for one hour of the day. This warrant applies to unusual cases, such as office complex, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. This warrant is recommended to only be considered at intersections that provide direct access to proposed project site (Intersections 7, 11 and Driveway 18). Following the County's guidelines, the peak hour signal warrant was evaluated for the intersections under the County's jurisdiction (Intersections 7, 10, 11, 12, 13, 21, 22 and Driveway 18). Therefore, this warrant did not apply to Intersections 15 and 20.

The following summarizes the traffic signal warrant evaluation:

- Intersection #7 – N Kelsey St & Shannon Parkway/Riverway
  - Does not satisfy Warrant 1, 2 or 3 under all scenarios
- Intersection #10 – Future N Clancy St & Unnamed North Road
  - Does not satisfy Warrant 1, 2 or 3 under all scenarios
- Intersection #11 – Future N Clancy St & W Riggin Ave
  - Satisfies Warrant 1, 2 and 3 under all Near-Term Plus Project scenarios (2025, 2026 and 2028)
- Intersection #12 – N Shirk St & Avenue 320
  - Does not satisfy Warrant 1, 2 or 3 under all scenarios
- Intersection #13/26 – N Shirk St & Shannon Parkway
  - Does not satisfy Warrant 1, 2 or 3 under all scenarios
- Intersection #15 – N Shirk St & W Sunnyview Ave/Ferguson Ave
  - Satisfies Warrant 1 and 2 under all scenarios. Warrant 3 would not apply at this location.

[11] *California Manual on Uniform Traffic Control Devices,* (FHWA's MUTCD 2009 Edition, including Revisions 1 & 2 as amended for use in California), 2014 Edition, Revision 7 (March 10, 2023)

- Intersection #20 – N Roeben St & W Ferguson Ave
    - Does not satisfy Warrant 1, 2 or 3 under all scenarios
- Intersection #21 – N Akers St & Avenue 320
    - Does not satisfy Warrant 1, 2 or 3 under all scenarios
- Intersection #22 – N Akers St & Future Shannon Pkwy
    - Does not satisfy Warrant 1, 2 or 3 under all scenarios
- N Shirk St & Driveway 18 / Sedona Ave
    - Does not satisfy Warrant 1, 2 or 3 under Near-Term (2028) scenarios

The unsignalized intersection of N Roeben St & W Riggin Ave was excluded from signal warrant analysis since this location is recommended to be signalized by the future Carlton Acres project under 2028 conditions, and provided direct access for this development. CA MUTCD Traffic Signal Warrants are provided in **Appendix I.**

INTERSECTION QUEUING

The effects of vehicle queuing for all exclusive turn lanes were analyzed for all Near-Term scenarios using *Synchro 11* software and *HCM* methodology. For comparison purposes, the Near-Term baseline and plus project scenarios were evaluated. **Table 15** summarizes the queuing analysis. Locations where the proposed project's traffic is generated is highlighted and locations where queues exceed the available storage length are bolded. A queuing deficiency is assumed to occur if the proposed project adds traffic to the subject movement, causes the queue to exceed the available storage length, and increases the 95th percentile queue by more than one vehicle length, or 25-feet. Based on this threshold, the proposed project would result in the following queuing deficiencies:

- Intersection #3 – N Plaza Dr & W Riggin Ave
    - Northbound right-turn pocket (deficiency identified in 2026)
    - Westbound left-turn pocket (deficiency identified in 2026)
- Intersection #14 – N Shirk St & W Riggin Ave
    - Northbound left-turn pocket (deficiency identified in 2025)
    - Eastbound right-turn pocket (deficiency identified in 2025)
- Intersection #24 – N Akers St & W Ferguson Ave
    - Northbound left-turn pocket (deficiency identified in 2026)
- Intersection #25 – N Akers St & W Goshen Ave
    - Southbound left-turn pocket (deficiency identified in 2026)

TABLE 16 INTERSECTION QUEUEING SUMMARY

INTERSECTION QUEUEING SUMMARY

INTERSECTION		CONTROL	MVT.	STORAGE LENGTH (ft)	NEAR-TERM (2025) CONDITION		NEAR-TERM (2025) CONDITION PLUS PHASE 1		NEAR-TERM (2026) CONDITION		NEAR-TERM (2026) CONDITION PLUS PHASE 2		NEAR-TERM (2028) CONDITION		NEAR-TERM (2028) CONDITION PLUS PROJECT BUILD-OUT		PROJECT DEFICIENCY
					AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	
1	N American Street & W Riggin Avenue	Signal	EBL	390	29	32	29	33	30	33	31	35	31	34	32	37	-
			WBL	310	39	87	43	99	39	87	49	108	42	89	53	115	NO
2	N Plaza Drive & Avenuenue 320	Signal	NBL	645	<25	55	<25	56	<25	56	<25	57	<25	57	<25	59	-
			NBR	330	84	72	91	75	86	72	96	76	88	74	100	76	-
			SBL	665	65	74	90	82	67	75	103	89	71	79	116	94	NO
3	N Plaza Drive & W Riggin Avenue	Signal	EBL	315	**#387**	**#332**	**#385**	**#332**	**#395**	**#340**	**#395**	**#340**	**#406**	**#354**	**#406**	**#354**	-
			EBR	300	66	37	65	41	65	39	65	43	66	41	66	45	-
			NBL	310	113	#275	113	#275	114	#276	114	#276	117	#283	117	#283	-
			NBR	100	<25	92	70	**104**	25	93	91	**118**	28	97	**109**	**130**	**YES**
			WBL	300	#231	144	#285	230	#234	145	**#344**	#296	#244	147	**#377**	**#390**	**YES**
			WBR	700	42	46	42	46	42	47	43	51	43	51	43	56	NO
			SBL	490	92	#158	92	#158	93	#161	98	#166	97	#167	107	#177	-
4	N Plaza Drive & W Ferguson Avenue	Signal	EBL	200	41	**#204**	41	**#207**	41	**#207**	41	**#207**	44	**#214**	44	**#214**	-
			EBR	110	0	47	0	48	0	48	0	48	0	48	0	48	-
			NBL	250	**#308**	124	**#308**	126	**#311**	127	**#311**	127	**#317**	127	**#317**	127	-
			NBR	275	0	0	0	0	0	0	0	0	0	0	0	0	-
			WBL	120	29	67	29	68	31	68	31	68	31	69	31	69	-
			WBR	105	-	0	-	0	-	0	-	0	-	0	-	0	-
			SBL	305	<25	<25	<25	<25	<25	<25	<25	<25	15	13	15	13	-
			SBR	110	30	0	30	0	30	0	30	0	32	0	32	0	-
5	N Plaza Drive & Private Access Road	Signal	EBL	150	<25	134	25	148	<25	136	27	**158**	24	139	28	**168**	-
			NBL	250	**#310**	#101	**#335**	#112	**#312**	#103	**#357**	#119	**#319**	#106	**#375**	#127	-
			SBL	150	<25	<25	11	<25	<25	<25	<25	<25	12	5	14	6	-
			SBR	190	<25	<25	<25	<25	0	<25	<25	<25	20	8	19	7	-
6	N Plaza Drive & W Goshen Avenue	Signal	EBL	250	#185	#187	#195	#192	#185	#192	#202	#199	#186	#198	#213	#208	NO
			EBR	110	58	61	58	61	59	61	59	61	60	62	60	63	-
			NBL	330	#270	#277	#270	#277	#277	#280	#277	#280	#289	#294	#280	#288	-
			NBR	105	26	0	26	0	27	0	27	0	29	1	29	<25	-
			WBL	250	#117	#149	#117	#149	#122	#151	#122	#151	#127	#160	#127	#160	-
			WBR	90	60	55	60	56	60	56	61	56	60	56	61	56	-
			SBL	185	**#315**	**#393**	**#320**	**#404**	**#320**	**#395**	**#327**	**#413**	**#329**	**#406**	**#327**	**#399**	NO
			SBR	140	64	106	66	110	65	106	68	114	67	108	71	118	NO
7	N Kelsey Street & Shannon Pkwy/Riverway Ave	Two-Way Stop	N/A														-
																	-
8	N Kelsey Street & W Riggin Avenue	Signal	EBL	310	51	63	105	84	52	66	123	97	54	69	131	108	NO
			EBR	300	<25	<25	<25	<25	<25	<25	<25	0	10	1	<25	0	-
			WBL	315	28	<25	33	25	28	<25	38	32	30	<25	41	40	NO
			WBR	155	26	37	38	40	27	37	41	41	27	38	46	45	NO
			SBL	200	DNE	DNE	71	127	DNE	DNE	82	152	DNE	DNE	89	172	NO
9	N Kelsey Street & W Goshen Avenue	Signal	EBL	250	97	56	98	56	99	56	99	56	102	58	103	58	NO
			WBL	325	146	86	150	94	150	86	153	97	153	89	158	102	NO
			WBR	150	33	26	33	26	33	26	32	26	33	26	33	26	-
10	Future N Clancy Street & Unnamed North Road	Two-Way Stop	N/A														-
																	-
11	Future N Clancy Street & W Riggin Avenue	Two-Way Stop / Signal	EBL	300	0	0	89	35	0	0	143	66	0	0	#243	84	NO
			NBL	200	-	-	<25	<25	-	-	<25	<25	DNE	DNE	<25	<25	NO
			WBL	300	0	0	<25	<25	0	0	<25	<25	0	0	<25	<25	NO
			WBR	200	DNE	DNE	147	50	DNE	DNE	172	67	DNE	DNE	182	71	NO
			SBL	300	DNE	DNE	72	#195	DNE	DNE	93	#239	DNE	DNE	100	**#304**	NO
12	N Shirk Street & Avenuenue 320	Two-Way Stop	N/A														-
																	-
13	N Shirk Street & Shannon Pkwy	Two-Way Stop	NBL	150	0	0	<25	0	0	0	<25	0	0	0	<25	0	NO
			SBL	150	0	0	0	0	0	0	0	0	0	0	0	0	-
14	N Shirk Street & W Riggin Avenue	Signal	EBL	300	36	127	41	153	36	127	82	176	38	128	99	#185	NO
			EBR	300	115	158	148	**334**	117	158	161	**345**	121	161	168	**372**	**YES**
			NBL	225	157	171	**#367**	**#260**	159	174	**#468**	**#294**	168	180	**#555**	**#317**	**YES**
			NBR	200	59	186	63	**202**	60	189	76	**205**	64	198	84	**210**	-
			WBL	300	115	#267	112	#286	117	#267	130	#290	124	#263	142	#279	-
			WBR	300	46	203	43	199	47	203	53	204	49	201	86	218	NO
			SBL	300	31	144	31	150	32	145	78	204	39	148	100	#282	NO
			SBR	300	37	56	55	66	37	56	45	64	38	55	49	68	NO

Note:

Project trips on this movement.

Queue lengths that exceed storage length by more than one vehicle (25 feet) are bolded and project deficiency are shaded.

95th percentile volume exceeds capacity; queue may be longer. Queue shown is maximum after two cycles.

DNE - Does Not Exist

TABLE 16 INTERSECTION QUEUEING SUMMARY - CONTINUED

INTERSECTION QUEUEING SUMMARY

INTERSECTION		CONTROL	MVT.	STORAGE LENGTH (ft)	EXISTING (2022)		NEAR-TERM (2025) CONDITION		NEAR-TERM (2025) CONDITION PLUS PHASE 1		NEAR-TERM (2026) CONDITION		NEAR-TERM (2026) CONDITION PLUS PHASE 2		NEAR-TERM (2028) CONDITION		NEAR-TERM (2028) CONDITION PLUS PROJECT BUILD-OUT		PROJECT DEFICIENCY
					AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	
15	N Shirk Street & W Sunnyview Avenue/Ferguson Avenue	All-Way Stop	NBL	300	DNE	DNE	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	-
			NBR	200	DNE	DNE	48	**270**	90	**335**	48	**280**	145	**398**	55	**300**	**210**	**448**	-
			WBL	200	33	<25	48	30	58	33	50	33	68	35	55	35	78	35	-
			SBL	200	DNE	DNE	<25	35	<25	58	<25	35	25	75	<25	40	30	95	NO
			SBR	200	DNE	DNE	38	123	53	**215**	40	125	73	**293**	45	130	90	**370**	-
16	N Shirk Street & W Doe Avenue	Signal	EBL	275	<25	28	37	131	49	135	38	134	60	141	40	141	67	149	NO
			EBR	275	<25	60	50	206	51	206	52	210	53	210	54	216	25	216	-
			NBL	200	DNE	DNE	160	92	164	92	163	93	#175	93	172	98	#199	98	-
			NBR	400	DNE	DNE	37	75	37	75	38	77	37	77	38	80	38	80	-
			WBL	275	<25	<25	175	79	180	79	180	82	192	82	190	84	#218	84	-
			WBR	275	<25	<25	<25	<25	12	<25	<25	<25	<25	<25	13	7	14	7	-
			SBL	115	DNE	DNE	<25	<25	<25	<25	<25	<25	<25	<25	7	18	8	18	-
			SBR	400	DNE	DNE	97	44	99	54	98	46	102	60	102	47	107	66	NO
17	N Shirk Street & W Goshen Avenue	Signal	EBL	270	48	94	79	182	87	198	80	185	94	201	84	191	100	204	NO
			NBL	260	**#294**	#105	**#309**	#181	**#321**	#196	**#315**	#185	**#331**	#199	**#338**	#194	**#344**	#205	-
			NBR	200	40	26	32	0	30	0	32	0	33	0	32	0	39	0	-
			WBL	270	#130	76	#141	#99	#148	#107	#147	#100	#152	#107	#154	#109	#158	#113	-
			WBR	205	25	<25	<25	<25	30	<25	<25	<25	36	<25	26	<25	37	<25	NO
			SBL	200	75	95	102	165	108	189	101	168	113	198	110	172	#122	**207**	NO
			SBR	365	68	40	137	91	138	93	138	90	140	96	141	92	143	100	NO
18	N Shirk Street & W Hurley Avenue	Signal	WBL	195	71	42	88	51	88	51	88	51	88	51	91	54	91	54	-
			SBL	200	34	69	45	125	45	125	45	115	45	126	47	127	47	127	-
19	N Roeben Street & W Riggin Avenue	One-Way Stop	N/A																-
		Signal	EBL	150	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	<25	21	<25	<25	-
			NBL	150	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	51	48	66	58	NO
			WBL	150	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	83	49	93	55	-
			SBL	150	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	39	38	43	43	-
20	N Roeben Street & W Ferguson Avenue	Two-Way Stop	EBL	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
			NBL	200	0	0	0	0	<25	0	0	0	<25	0	0	0	<25	<25	NO
			WBL	200	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	-
21	N Akers Street & Avenuenue 320	Two-Way Stop	N/A																-
																			-
22	N Akers Street & Future Shannon Pkwy	Signal	N/A																-
																			-
23	N Akers Street & W Riggin Avenue	Signal	EBL	305	#187	54	#218	76	#224	#102	#225	76	#241	#118	#243	#101	#260	#151	NO
			EBR	250	<25	<25	<25	78	<25	96	<25	81	<25	107	25	92	30	127	NO
			NBL	300	59	55	#247	**#675**	#271	**#679**	#250	**#677**	#288	**#689**	#263	**#710**	**#313**	**#725**	NO
			NBR	300	34	57	33	57	33	57	33	57	33	57	33	57	33	57	-
			WBL	300	#244	123	#275	132	#275	132	#284	135	#284	135	#299	142	#299	142	-
			WBR	300	29	<25	42	25	54	25	44	26	62	26	48	27	71	27	-
			SBL	300	#210	26	**#303**	#66	**#303**	#66	**#311**	#66	**#311**	#66	**#345**	#92	**#345**	#92	-
			SBR	155	29	<25	30	<25	31	<25	31	<25	31	<25	31	<25	31	22	NO
24	N Akers Street & W Ferguson Avenue	Signal	EBL	150	93	51	99	62	99	62	102	64	102	64	106	67	106	67	-
			EBR	300	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	-
			NBL	215	#183	**228**	#202	**242**	**#226**	**247**	#205	**245**	**#262**	**257**	**#216**	**255**	**#287**	**269**	**YES**
			NBR	750	32	52	37	53	37	53	40	54	40	54	41	61	41	63	-
			WBL	150	**#280**	135	**#314**	142	**#314**	142	**#324**	144	**#324**	144	**#340**	149	**#340**	149	-
			SBL	230	#74	53	#90	64	#90	64	#92	64	#92	64	#92	65	#92	63	-
			SBR	120	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	-
25	N Akers Street & W Goshen Avenue	Signal	EBL	240	63	#128	98	191	98	191	99	194	99	194	101	201	101	201	NO
			EBR	195	<25	<25	0	43	0	43	0	44	0	44	0	44	0	44	-
			NBL	265	**#270**	174	**318**	260	**318**	260	**325**	263	**325**	263	**#342**	**271**	**#342**	**271**	-
			NBR	100	61	72	86	**109**	86	**109**	90	**113**	90	**113**	95	**117**	95	**117**	-
			WBL	300	#281	#142	250	166	250	166	253	170	253	170	263	175	263	175	-
			WBR	130	37	49	44	65	46	65	44	65	47	66	44	66	47	68	NO
			SBL	250	**#435**	#221	**415**	**288**	**424**	**311**	**#426**	**294**	**#462**	**#340**	**#478**	**310**	**#500**	**#373**	**YES**
			SBR	80	78	57	**129**	**84**	**129**	**84**	**131**	**85**	**131**	**85**	**133**	**87**	**133**	**87**	-
26	N Shirk Street & Shannon Pkwy	Two-Way Stop	N/A																-
																			-

Note:

Project trips on this movement.

Queue lengths that exceed storage length by more than one vehicle (25 feet) are bolded and project deficiency are shaded.

95th percentile volume exceeds capacity; queue may be longer. Queue shown is maximum after two cycles.

DNE - Does Not Exist

COLLISION ANALYSIS

A collision analysis was conducted to determine any historic trends that may indicate existing safety hazards present in the study area. Collision data was obtained from the Statewide Integrated Traffic Record System (SWITRS) over a 3-year period between January 1, 2018 to December 31, 2020, which is the most recent data available when the project was initiated in August 2022. Documented collisions that occurred within the study area are summarized in **Table 16**. SWITRS reports are included in **Appendix J**.

Over the 3-year period, there was a total of seventy-four (74) documented collisions, mostly occurring along W Goshen Avenue. The most common collision type was a broadside collision. On the proposed project's frontage, along W Riggin Avenue and N Shirk Road, a total of eleven (11) collisions occurred over the 3-year period. The most common collision type was a hit object collision. The study intersections with the most collisions over the 3-year period are the following:

- Intersection #6 – N Plaza Drive & W Goshen Avenue
    - Ten (10) collisions (most common collision was rear end)
- Intersection #12 – N Shirk Road & Avenue 320
    - Twelve (12) collisions (all collisions were broadside)
- Intersection #25 – N Akers Street & W Goshen Avenue
    - Eleven (11) collisions (most common collision was rear end)

Collision diagram shown on **Figure 35.**

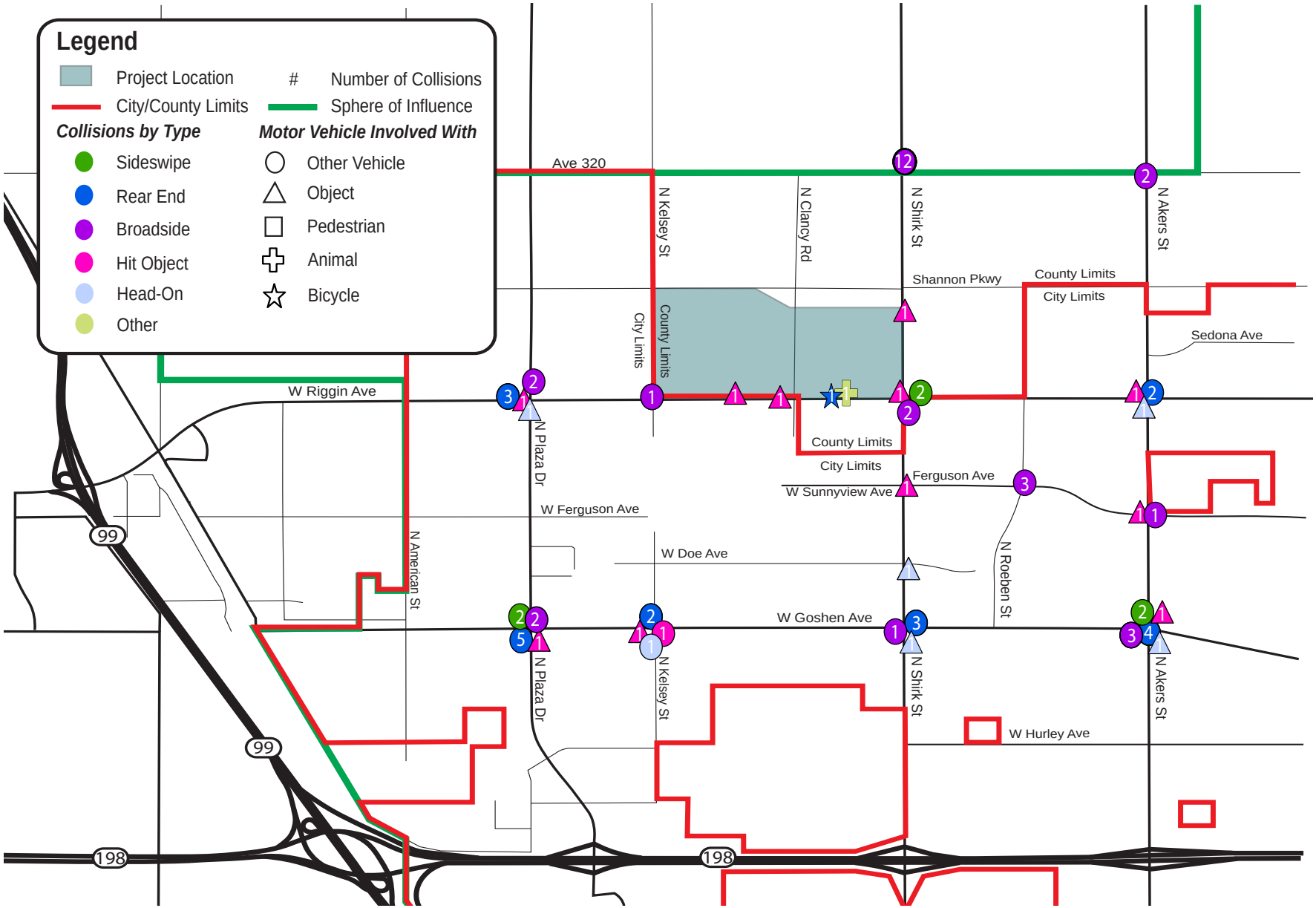
Considering the generally low traffic volumes at N Shirk St & Avenue 320, the twelve (12) broadside collisions over a 3-year period indicate a much higher accident frequency than the rest of study area and a potential safety concern. Following the survey of existing conditions in June 2022, the County converted the intersection to an all-way stop control by installing large "STOP" signs (R1-1) and advance "STOP AHEAD" signs (W3-1) on each intersection approach. A street light has also been approved for the intersection, which is currently waiting approval from Southern California Edison (SCE). Therefore, no further intersections enhancements are recommended to be required by the proposed project.

TABLE 17 COLLISION ANALYSIS SUMMARY

COLLISION ANALYSIS SUMMARY

YEAR	INTERSECTION		COLLISION TYPE						
	#	NAME	HEAD-ON	SIDESWIPE	REAR END	BROADSIDE	HIT OBJECT	OTHER	TOTAL
2018	6	N Plaza Dr & W Goshen Ave	0	0	2	0	0	0	2
	12	N Shirk St & Avenue 320	0	0	0	2	0	0	2
	14	N Shirk St & W Riggin Ave	0	1	0	1	0	0	2
	16	N Shirk St & W Doe Ave	1	0	0	0	0	0	1
	17	N Shirk St & W Goshen Ave	1	0	0	0	0	0	1
	20	N Roeben St & W Ferguson Ave	0	0	0	2	0	0	2
	21	N Akers St & Avenue 320	0	0	0	2	0	0	2
	23	N Akers St & W Riggin Ave	0	0	1	0	1	0	2
	24	N Akers St & W Ferguson Ave	0	0	0	0	1	0	1
	25	N Akers St & W Goshen Ave	0	1	0	2	0	0	3
		Total	***2***	***2***	***3***	***9***	***2***	***0***	***18***
2019	3	N Plaza Drive & W Riggin Ave	0	0	0	2	1	0	3
	6	N Plaza Dr & W Goshen Ave	0	0	1	1	0	0	2
	8	N Kelsey St & W Riggin Ave	0	0	1	0	0	0	1
	9	N Kelsey St & W Goshen Ave	1	0	2	0	1	0	4
	11	Future N Clancy St & W Riggin Ave	0	0	0	0	1	0	1
	12	N Shirk St & Avenue 320	0	0	0	3	0	0	3
	14	N Shirk St & W Riggin Ave	0	1	0	1	0	0	2
	17	N Shirk St & W Goshen Ave	0	0	2	1	0	0	3
	20	N Roeben St & W Ferguson Ave	0	0	0	1	0	0	1
	23	N Akers St & W Riggin Ave	1	0	0	0	0	0	1
	25	N Akers St & W Goshen Ave	0	1	0	0	1	0	2
		Project Frontage (Riggin Ave)	0	0	1	0	1	1	3
		Total	***2***	***2***	***7***	***9***	***5***	***1***	***26***
2020	3	N Plaza Drive & W Riggin Ave	1	0	3	0	0	0	4
	6	N Plaza Dr & W Goshen Ave	0	2	2	1	1	0	6
	8	N Kelsey St & W Riggin Ave	0	0	0	1	0	0	1
	9	N Kelsey St & W Goshen Ave	0	0	0	0	1	0	1
	12	N Shirk St & Avenue 320	0	0	0	7	0	0	7
	13	N Shirk St & Shannon Pkwy	0	0	0	0	1	0	1
	14	N Shirk St & W Riggin Ave	0	0	0	0	1	0	1
	15	N Shirk St & W Sunnyview Ave/Ferguson Ave	0	0	0	0	1	0	1
	23	N Akers St & W Riggin Ave	0	0	1	0	0	0	1
	24	N Akers St & W Ferguson Ave	0	0	0	1	0	0	1
	25	N Akers St & W Goshen Ave	1	0	4	1	0	0	6
		Total	***2***	***2***	***10***	***11***	***5***	***0***	***30***
Grand Total			***6***	***6***	***20***	***29***	***12***	***1***	***74***

FIGURE 35 COLLISION DIAGRAM



6. ADDITIONAL TOPICS (NON-CEQA)

This chapter discusses site access and circulation, transit, bicycle, and pedestrian recommendations for the proposed project.

SITE ACCESS AND CIRCULATION

Access to the proposed project would be established through the construction of nineteen (19) driveways, which would satisfy the minimum spacing requirements identified by the City's Design and Improvement Standards (C-32). The southernmost driveway along N Shirk Street (Driveway 19) would align with the neighboring driveway for the proposed Costco development (22-071), which is proposed to be signalized as part of their opening day access requirements. All other eighteen (18) driveways are proposed to be unsignalized. The following summarizes the project access locations:

W Riggin Avenue

- Project Driveway 6 (Phase 2)
  - Construct limited-access (outbound left-turn restricted) driveway approximately 1,300-feet east of N Kelsey Street;
  - Design driveway to accommodate inbound/outbound truck turning paths;
  - Provide one (1) outbound lane for right-turning vehicles; and
  - Provide stop-control for outbound movements.
- Project Driveway 15 (Phase 3)
  - Construct limited-access (outbound left-turn restricted) driveway approximately 1,250-feet west of N Shirk Street;
  - Design driveway to accommodate inbound/outbound truck turning paths;
  - Provide one (1) outbound lane for right-turning vehicles; and
  - Provide stop-control for outbound movements.
- Project Driveway 16 (Phase 2)
  - Construct right-in/right-out driveway approximately 375-feet west of N Shirk Street;
  - Provide one (1) outbound lane for right-turning vehicles; and
  - Provide stop-control for outbound movements.

N Kelsey Street

- Project Driveway 1 (Phase 1)
  - Construct full-access driveway approximately 2,525-feet north of W Riggin Avenue;
  - Design driveway to accommodate inbound/outbound truck turning paths;
  - Provide two (2) outbound lanes to separate right and left turning traffic; and
  - Provide stop-control for outbound movements (see below for lane geometry recommendations).
- Project Driveway 2 (Phase 1)
  - Construct full-access driveway approximately 2,200-feet north of W Riggin Avenue;
  - Provide one (1) outbound lane; and
  - Provide stop-control for outbound movements.
- Project Driveway 3 (Phase 1)

    - Construct full-access driveway approximately 1,475-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide two (2) outbound lanes to separate right and left turning traffic; and
    - Provide stop-control for outbound movements.
- Project Driveway 4 (Phase 1)
    - Construct full-access driveway approximately 925-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane; and
    - Provide stop-control for outbound movements.
- Project Driveway 5 (Phase 1)
    - Construct full-access driveway approximately 325-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide two (2) outbound lanes to separate right and left turning traffic; and
    - Provide stop-control for outbound movements.

N Clancy Street

- Project Driveways 7 (Phase 1) & 11 (Phase 2)
    - Construct full-access driveways approximately 2,050-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane; and
    - Provide stop-controls for outbound movements.
- Project Driveways 8 (Phase 1) & 12 (Phase 2)
    - Construct full-access driveways approximately 1,575-feet north of W Riggin Avenue;
    - Design driveway 8 (west side of road) to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane; and
    - Provide stop-controls for outbound movements.
- Project Driveways 9 (Phase 1) & 13 (Phase 2)
    - Construct full-access driveways approximately 1,075-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane; and
    - Provide stop-controls for outbound movements.
- Project Driveways 10 (Phase 1) & 14 (Phase 2)
    - Construct full-access driveways approximately 550-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles; and
    - Provide stop-control for outbound movements.

N Shirk Street

- Project Driveway 17 (Phase 3)
    - Construct right-in/right-out driveway approximately 1,950-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles; and
    - Provide stop-control for outbound movements.
- Project Driveway 18 (Phase 3)

    - Construct limited-access (outbound left-turn restricted) driveway approximately 1,325-feet north of W Riggin Avenue, along the Sedona Avenue roadway alignment;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles; and
    - Provide stop-control for outbound movements.
- Project Driveway 19 (Phase 2)
    - Construct full-access driveway approximately 660-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths; and
    - Modify the traffic signal installed by the recently approved Costco development (22-071) or coordinate with Costco development team for implementation of these improvements as part of their opening day access requirements.

The land uses that are expected to use each of the proposed project's driveways, along with the percentage of the total proposed project's traffic for each Phase of development are summarized in **Table 17.**

Table 18– Driveway Access Land Use

#	Locations	Land Uses (per ITE)	Phase 1 Trip Percentage (approx..)	Phase 2 Trip Percentage (approx..)	Phase 3 Trip Percentage (approx..)
1	N Kelsey Street	Industrial Park	10.1%	5.9%	4.7%
2	N Kelsey Street	Industrial Park	5.9%	3.0%	2.4%
3	N Kelsey Street	Industrial Park	12.0%	7.1%	5.7%
4	N Kelsey Street	Industrial Park	4.9%	3.0%	2.4%
5	N Kelsey Street	Industrial Park	13.0%	5.6%	4.5%
6	W Riggin Avenue	Industrial Park	DNE	4.4%	3.5%
7	N Clancy Street	Industrial Park	15.0%	8.8%	9.1%
8	N Clancy Street	Industrial Park	15.0%	8.8%	7.0%
9	N Clancy Street	Industrial Park	4.9%	2.9%	2.3%
10	N Clancy Street	Industrial Park	19.1%	8.5%	6.6%
11	N Clancy Street	Industrial Park	DNE	5.4%	11.2%
12	N Clancy Street	Industrial Park	DNE	1.5%	1.5%
13	N Clancy Street	Industrial Park	DNE	1.5%	1.5%
14	N Clancy Street	Industrial Park	DNE	14.8%	9.3%
15	W Riggin Avenue	Industrial Park	DNE	DNE	2.5%
16	W Riggin Avenue	Industrial Park, Convenience Store/Gas Station, Car Wash, Fast-Food Restaurant	DNE	1.6%	1.9%
17	N Shirk Street	Industrial Park, Mini-Warehouse	DNE	DNE	4.5%
18	N Shirk Street	Industrial Park, Mini-Warehouse	DNE	DNE	5.9%
19	N Shirk Street	Industrial Park, Mini-Warehouse, Convenience Store/Gas Station, Car Wash, Fast-Food Restaurant	DNE	17.1%	13.6%

Notes: DNE – Does Not Exist (constructed in future Phase); Trip Percentage based on ratio of inbound/outbound driveway trips during the AM and PM peak hours evaluated.

Exclusive Turn Pocket Evaluation

The TIA conducted an evaluation to determine if exclusive right-turn or left-turn pockets would be required. According to the City's TIA guidelines, when 40 or more vehicles are expected to make right turns into a driveway for a one-hour period, a right-turn pocket is required. Additionally, when the posted speed limit is 35-mph or the 85th percentile speed limit is greater than 35 mph, a right-turn pocket is also required. Based on the evaluation, ten (10) right-turn pockets are recommended. **Table 18** summarizes the results for the right-turn lane evaluation. The following locations are recommended for the installation of a right-turn pocket based on traffic volumes expected during the peak hours:

- N Kelsey St & Driveway 3 (Northbound Right) – 100-foot minimum
- N Kelsey St & Driveway 5 (Northbound Right) – 100-foot minimum
- W Riggin Ave & Driveway 6 (Westbound Right) – 150-foot minimum
- N Clancy St & Driveway 11 (Northbound Right) – 100-foot minimum
- N Clancy St & Driveway 14 (Northbound Right) – 100-foot minimum
- W Riggin Ave & Driveway 15 (Westbound Right) – 150-foot minimum
- W Riggin Ave & Driveway 16 (Westbound Right) – 150-foot minimum
- N Shirk St & Driveway 17 (Southbound Right) – 150-foot minimum
- N Shirk St & Driveway 18 (Southbound Right) – 150-foot minimum
- N Shirk St & Driveway 19 (Southbound Right) – 150-foot minimum

It should be noted that N Kelsey St & Driveway 5 location is only expected to meet the 40 vehicle requirement for Phase 1 conditions, since traffic volumes would be reduced with the opening of the adjacent W Riggin Ave & Driveway 6 in Phase 2. However, this location is recommended for the installation of northbound right-turn pocket (100-foot minimum) since this driveway is expected to generate over 30 peak hour northbound right-turns, provides access to trucks and based the close proximity to the signalized intersection of N Kelsey St & W Riggin Ave.

To determine if left-turn lanes are required, a queuing analysis for the project driveways was conducted in Synchro. As shown in **Table 19**, separate left-turn pockets would not be required based on expected left-turn queueing since all left-turn queues were calculated to be less than 25-feet, less than one vehicle length. Because N Kelsey Street and N Clancy Street are classified as 2-Lane Collectors, a separate two-way left-turn lane is recommended to be installed adjacent to proposed project's driveways. Additionally, left-turn pockets are recommended to be installed along W Riggin Avenue and N Shirk Street due to the 4-Lane Arterial classifications. The following left-turn pockets are recommended:

- N Kelsey St & Driveways 1 through 5 – Stripe two-way left-turn lane along N Kelsey St
- W Riggin Ave & Driveway 6 – 300-foot eastbound left-turn pocket constructed by CIP
- N Clancy St & Driveways 7 through 14 – Stripe two-way left-turn lane along N Clancy St
- W Riggin Ave & Driveway 15 – 300-foot eastbound left-turn pocket constructed by CIP
- N Shirk Street & Driveway 18 – Project shall construct 300-foot northbound left-turn pocket within raised median
- N Shirk Street & Driveway 19 – Project shall construct 200-foot northbound left-turn pocket within raised median and stripe 150-foot eastbound left-turn pocket.

TABLE 19 DRIVEWAY RIGHT-TURN EVALUATION SUMMARY

DRIVEWAY RIGHT-TURN EVALUATION SUMMARY

Location	Major Street Speed 55 MPH or Greater?	Approach	Near-Term (2025)		Near-Term (2026)		Near-Term (2028)		Right-Turn Pocket Warranted?	Calculated Storage Length (ft)	Recommended Storage Length (ft)
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak			
N Kelsey Street & Driveway 1	No	NBR	33	12	38	12	38	12	No	-	-
N Kelsey Street & Driveway 2	No	NBR	16	5	19	6	19	6	No	-	-
N Kelsey Street & Driveway 3	No	NBR	**44**	13	**51**	16	**51**	16	**Yes**	45	100
N Kelsey Street & Driveway 4	No	NBR	16	5	19	6	19	6	No	-	-
N Kelsey Street & Driveway 5	No	NBR	**55**	17	32	10	32	10	No	30	100
W Riggin Avenue & Driveway 6	**Yes**	WBR	DNE	DNE	32	10	32	10	**Yes**	30	150
N Clancy Street & Driveways 7 and 11	No	NBR	DNE	DNE	**50**	26	**93**	**44**	**Yes**	80	100
		SBR	0	0	0	0	0	0	No	-	-
N Clancy Street & Driveways 8 and 12	No	NBR	DNE	DNE	14	7	19	8	No	-	-
		SBR	0	0	0	0	6	2	No	-	-
N Clancy Street & Driveways 9 and 13	No	NBR	DNE	DNE	14	7	19	8	No	-	-
		SBR	0	0	0	0	0	0	No	-	-
N Clancy Street & Driveways 10 and 14	No	NBR	DNE	DNE	**57**	30	**62**	26	**Yes**	55	100
		SBR	0	0	0	0	0	0	No	-	-
W Riggin Avenue & Driveway 15	**Yes**	WBR	DNE	DNE	DNE	DNE	14	6	**Yes**	15	150
W Riggin Avenue & Driveway 16	**Yes**	WBR	DNE	DNE	**155**	**132**	**165**	**134**	**Yes**	140	150
N Shirk Street & Driveway 17	**Yes**	SBR	DNE	DNE	DNE	DNE	37	14	**Yes**	35	150
N Shirk Street & Driveway 18 / Sedona Avenue	**Yes**	SBR	DNE	DNE	DNE	DNE	10	4	**Yes**	10	150
N Shirk Street & Driveway 19	**Yes**	SBR	DNE	DNE	**83**	**55**	**61**	**45**	**Yes**	55	150

Note:

Volumes and speeds that warrant a right-turn pocket are bolded and shaded.

Calculated storage lengths per the City's non-signalized intersection queueing equation, which is based on the American Association of State Highway and Transportation Officials (AASHTO) Green Book Storage Length formula.

Recommended storage length (ft) is rounded up to the nearest 25-feet. 100-foot pocket is the minimum length recommended.

DNE - Does Not Exist

TABLE 20 DRIVEWAY LEFT-TURN EVALUATION SUMMARY

DRIVEWAY LEFT-TURN EVALUATION SUMMARY

Intersection	Approach	95th Percentile Queue Length (ft)						Recommendation	Notes
		Near-Term (2025)		Near-Term (2026)		Near-Term (2028)			
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak		
N Kelsey Street & Driveway 1	SBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Kelsey Street
	WBL	<25	<25	<25	<25	<25	<25	-	
N Kelsey Street & Driveway 2	SBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Kelsey Street
	WBL	<25	<25	<25	<25	<25	<25	-	
N Kelsey Street & Driveway 3	SBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Kelsey Street
	WBL	<25	<25	<25	<25	<25	<25	-	
N Kelsey Street & Driveway 4	SBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Kelsey Street
	WBL	<25	<25	<25	<25	<25	<25	-	
N Kelsey Street & Driveway 5	SBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Kelsey Street
	WBL	<25	<25	<25	<25	<25	<25	-	
W Riggin Avenue & Driveway 6	EBL	DNE	DNE	<25	<25	<25	<25	Left-Turn Pocket	300-foot LT pocket installed per Riggin Avenue Widening & Improvements
N Clancy Street & Driveways 7 and 11	NBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Clancy Street
	SBL	DNE	DNE	<25	<25	<25	<25	Two-Way Left-Turn Lane	
	WBL	DNE	DNE	<25	<25	<25	<25	-	
	EBL	<25	<25	<25	<25	<25	<25	-	
N Clancy Street & Driveways 8 and 12	NBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Clancy Street
	SBL	DNE	DNE	<25	<25	<25	<25	Two-Way Left-Turn Lane	
	WBL	DNE	DNE	<25	<25	<25	<25	-	
	EBL	<25	<25	<25	<25	<25	<25	-	
N Clancy Street & Driveways 9 and 13	NBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Clancy Street
	SBL	DNE	DNE	<25	<25	<25	<25	Two-Way Left-Turn Lane	
	WBL	DNE	DNE	<25	<25	<25	<25	-	
	EBL	<25	<25	<25	<25	<25	<25	-	
N Clancy Street & Driveways 10 and 14	NBL	<25	<25	<25	<25	<25	<25	Two-Way Left-Turn Lane	Stripe TWLT along N Clancy Street
	SBL	DNE	DNE	<25	<25	<25	<25	Two-Way Left-Turn Lane	
	WBL	DNE	DNE	<25	<25	<25	<25	-	
	EBL	<25	<25	<25	<25	<25	<25	-	
W Riggin Avenue & Driveway 15	EBL	DNE	DNE	DNE	DNE	<25	<25	Left-Turn Pocket	300-foot LT pocket installed per Riggin Avenue Widening & Improvements
N Shirk Street & Driveway 18 / Sedona Avenue	NBL	DNE	DNE	DNE	DNE	<25	<25	Left-Turn Pocket	Construct 300-foot NB LT pocket. Recommended length consistent with Riggin Avenue Widening and Improvements.
N Shirk Street & Driveway 19 / Costco Driveway	NBL	DNE	DNE	89	81	122	58	Left-Turn Pocket	Construct 200-foot NB LT pocket to provide for future traffic demand. Stripe 150-foot EB LT pocket.
	EBL	DNE	DNE	51	87	58	68		

Notes:
DNE - Does Not Exist
Project modifications to turn pocket lengths shown underlined. Queue lengths greater than queue storage are **bolded**. Queue length less than 25-ft are reported as <25.

BICYCLE

Bicycle access to the proposed project would be provided via the new bike lanes proposed along W Riggin Avenue that would be constructed by the City/other third parties as part of the separate, already-approved Riggin Avenue Widening & Improvements CIP. The proposed project would construct Class II bike lanes adjacent to the project site along N Kelsey Street, N Clancy Street and the west side of N Shirk Steet, which is consistent with the *City of Visalia Active Transportation Plan* (ATP)[12] future bicycle network for the northwest quadrant (Figure 3-8a).

Per the ATP, the proposed project would dedicate a 25-foot setback (measured from top toe of the bank) along Modoc Ditch to meet storm drain and flood control requirements. This setback would provide space for the planned Class I bikeway along the Modoc Ditch. It should be noted that the Class I bikeway along Modoc ditch is existing to the east of the proposed project, between Dinuba Boulevard and the St. John's River Trail. The CASP project also proposed to construct a portion of the Class I path within the CASP site. The City would reimburse the proposed project for 13-feet of the setback, for the potion not encumbered for a maintenance road. This reimbursement would be funded by the Waterways and Trails Impact Fee fund.

Therefore, no bicycle-related deficiencies are anticipated due to the proposed project. Bicycle connectivity would be improved by the installation of bike facilities and dedication of right-of-way along Modoc Ditch that is proposed by the proposed project.

PEDESTRIAN

The proposed project would construct pedestrian access improvements via new sidewalk adjacent to the project site along the north side of W Riggin Avenue, east side of N Kelsey Street, both sides of N Clancy Street, and west side of N Shirk Street. The proposed project would also construct pedestrian ramps and signalized crossings at the intersections of N Kelsey Street & W Riggin Avenue, N Clancy Street & W Riggin Avenue, N Shirk Street & W Riggin Avenue. These improvements are expected to enhance the pedestrian connectivity. Therefore, no pedestrian-related deficiencies are anticipated due to the proposed project.

TRANSIT

As discussed in Section 2, Visalia Transit Route 17 provides services along W Riggin Avenue. The separate, already-approved Riggin Avenue Widening & Improvements CIP that would be constructed by the City/other third parties involves the installation of an additional bus stop adjacent to the project site at the northwest corner of N Shirk Street & W Riggin Avenue. The proposed project would enhance connectivity to this future transit stop through its installation of the sidewalk and bicycle facilities discussed above. Therefore, no transit-related deficiencies are anticipated due to the proposed project.

[12] City of Visalia. Active Transportation Plan (Final – March 2017).
Website: https://www.visalia.city/documents/Engineering/ATP-Final%20COV%20Optimized.pdf. Accessed October 11, 2023.

7. SUMMARY OF IMPACTS, DEFICIENCIES AND RECOMMENDATIONS

Based on the results of the traffic VMT and the non-CEQA LOS operational analysis of the proposed project, potential significant impacts and deficiencies were identified, as defined by the City's significance criteria, as defined under Methodology (Section 1). This chapter summarizes these potential impacts and/or deficiencies caused by the expected trips generated by the proposed project and recommended mitigation and/or improvements.

PROJECT IMPACTS / RECOMMENDATIONS (CEQA)

Based on the quantitative VMT analysis and the assumptions/thresholds applied, the proposed project would result in a significant VMT impact, requiring mitigation. Since a significant CEQA VMT transportation impact has been identified, feasible mitigation measures to avoid or reduce the impact have been identified. CEQA requires that the mitigation measures be included in the proposed project's environmental assessment. OPR provides a list of potential measures to reduce VMT but gives the lead agency full discretion in the selection of mitigation measures.

VMT MITIGATION

The Applicant would provide the following mitigation measures to reduce VMT impact:

3. End-of-Trip Bicycle Facilities: The site plan would include up to six (6) secured bicycle storage lockers near each of the buildings entrances and the future transit stop. Up to ten (10) potential locations are included, for a total of up to sixty (60) lockers throughout the site. This improvement is consistent with the City's recommended mitigations included in VMT guidelines (Table A #12). Lockers would be provided for approximately 1.5 percent of the 4,178 site's daily employees with flexibility to add future lockers based on demand.
4. Expand Bicycle Network: Construct bike path along Modoc Ditch, between Kelsey Street and Shirk Street (approximately 1-mile). The Class I bikeway along Murdoc ditch is existing to the east of the proposed project, between Dinuba Boulevard and the St. John's River Trail. The CASP project also proposed to construct a portion of the Class I path within the site. Therefore, the bike path would connect to a new path proposed within CASP site and future segments to the east and west. This mitigation is subject to contractability and approval of Cal Water. This improvement is consistent with the City's recommended mitigations within the VMT guidelines (Table A #51).

Combining the above-mentioned mitigation measures would reduce the proposed project's VMT per employee by 1.75 percent, exceeding the proposed project's 1.54 percent impact. Therefore, the proposed project's VMT impact would be mitigated. **Appendix M** contains information related to mitigation measures selected, a figure identifying approximate locations of the proposed improvements and summary of VMT reduction methodology and calculations.

In addition to the proposed mitigation measures, VMT is expected to be further reduced with the construction of the adjacent Carlton Acres development, which contains a high number of residential units. The interaction between the proposed project's employment opportunities adjacent to the added residential units was not considered by the TCAG travel demand model, but would further reduce VMTs. Additionally, the construction of bike path along Modoc Ditch is expected to reduce the miles traveled of nearby existing

and future developments as it provides an important bicycle and pedestrian connection for the City and County.

PROJECT DEFICIENCIES / RECOMMENDATIONS (NON-CEQA)

Project deficiencies were determined based on criteria established in the City's TIA guideline. **Table 20** summarizes Near-Term and Long-Term LOS for the intersections identified as Project-related deficiencies and the LOS after the implementation of the recommended improvements, summarized below.

Appendix K contains calculations and backup information related to fair-share percentages assessed to the proposed project.

INTERSECTION #3 – N PLAZA DR & W RIGGIN AVE

Queuing

The proposed project is expected to result in a queuing deficiency for the following conditions:

- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – NBR / WBL
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – NBR / WBL

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to cause a queueing deficiency since one or more queues would extend beyond the turn pockets and would increase the queue length by more than 25 feet. Under the ensuing scenario, the queueing increases further.

Improvement – Intersection #3

The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. Since LOS is acceptable and since the westbound left-turns movements are projected to just exceed 300 turning movements for the Near-Term (2028) Plus Project Build-Out scenario (242 AM / 302 PM), dual left-turn pockets are not suggested at this time. It is recommended that the proposed project modify the raised median to extend the existing westbound left-turn pocket by 100-feet, to provide 400-foot left-turn pocket. It is also recommended that the existing northbound right-turn stripe be extended to 300-feet.

INTERSECTION #14 – N SHIRK ST & W RIGGIN AVE

Queuing

The proposed project is expected to result in a queuing deficiency for the following conditions:

- Near-Term (2025) Plus Phase 1 (AM and PM peak hours) – NBL / EBR
- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – NBL / EBR
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – NBL / EBR

Under Near-Term (2025) Conditions Plus Phase 1, the proposed project is projected to cause a queueing deficiency since one or more queues would extend beyond the turn pockets, and since it would increase the queue length by more than 25 feet. Under the ensuing scenarios, the queueing increases further.

TABLE 21 SUMMARY OF INTERSECTION IMPROVEMENTS

NEAR-TERM (2025, 2026, and 2028)
SUMMARY OF INTERSECTION IMPROVEMENTS

	INTERSECTION	PEAK HOUR	NEAR-TERM (2025) CONDITIONS PLUS PHASE 1 (BEFORE IMPROVEMENTS)		NEAR-TERM (2025) CONDITIONS PLUS PHASE 1 (AFTER IMPROVEMENTS)		NEAR-TERM (2026) CONDITIONS PLUS PHASE 2 (BEFORE IMPROVEMENTS)		NEAR-TERM (2026) CONDITIONS PLUS PHASE 2 (AFTER IMPROVEMENTS)		NEAR-TERM (2028) CONDITIONS PLUS PROJECT BUILD-OUT (BEFORE IMPROVEMENTS)		NEAR-TERM (2028) CONDITIONS PLUS PROJECT BUILD-OUT (AFTER IMPROVEMENTS)	
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)
3	N Plaza Drive & W Riggin Ave	AM	N/A - Proposed Turn Pocket Extensions Only											
		PM												
14	N Shirk St & W Riggin Ave	AM	20.6	C	16.9	B	24.4	C	19.1	B	28.0	C	20.7	C
		PM	25.0	C	23.6	C	28.6	C	26.4	C	32.3	C	29.4	C
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	AM	23.5	C	11.1	B	42.6	**E**	11.7	B	71.7	**F**	12.4	B
		PM	176.5	**F**	13.5	B	ECL	**F**	14.8	B	ECL	**F**	15.9	B
23	N Akers St & W Riggin Ave	AM	65.0	**E**	38.6	D	75.2	**E**	39.6	D	91.2	**F**	42.4	D
		PM	157.5	**F**	23.8	C	158.5	**F**	24.1	C	172.2	**F**	25.3	C
24	N Akers St & W Ferguson Ave	AM	-	-	-	-	55.2	**E**	45.7	D	60.7	**E**	48.4	D
		PM	-	-	-	-	39.0	D	35.5	D	40.3	D	36.0	D
25	N Akers St & W Goshen Ave	AM	N/A - Proposed Turn Pocket Extensions Only											
		PM												

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
Traffic signals warranted under Near-Term Conditions - Intersections 15 and 20.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* and performed using Synchro 11.0

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LONG-TERM (2033, 2038, and 2048)
SUMMARY OF INTERSECTION IMPROVEMENTS

	INTERSECTION	PEAK HOUR	LONG-TERM (2033) CONDITIONS PLUS PROJECT BUILD-OUT (BEFORE IMPROVEMENTS)		LONG-TERM (2033) CONDITIONS PLUS PROJECT BUILD-OUT (AFTER IMPROVEMENTS)		LONG-TERM (2038) CONDITIONS PLUS PROJECT BUILD-OUT (BEFORE IMPROVEMENTS)		LONG-TERM (2038) CONDITIONS PLUS PROJECT BUILD-OUT (AFTER IMPROVEMENTS)		LONG-TERM (2048) CONDITIONS PLUS PROJECT BUILD-OUT (BEFORE IMPROVEMENTS)		LONG-TERM (2048) CONDITIONS PLUS PROJECT BUILD-OUT (AFTER IMPROVEMENTS)	
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)
3	N Plaza Drive & W Riggin Ave	AM	N/A - Proposed Turn Pocket Extensions Only											
		PM												
14	N Shirk St & W Riggin Ave	AM	28.9	C	21.2	C	28.9	C	21.2	C	29.8	C	21.8	C
		PM	31.0	C	29.6	C	31.0	C	29.6	C	31.1	C	29.8	C
15	N Shirk St & W Sunnyview Ave/Ferguson Ave	AM	73.8	**F**	12.5	B	75.6	**F**	12.5	B	84.9	**F**	12.7	B
		PM	ECL	**F**	16.9	B	ECL	**F**	18.1	B	ECL	**F**	20.1	C
20	N Roeben St & W Ferguson Ave	AM	-	-	-	-	-	-	-	-	31.2	D	6.4	A
		PM	-	-	-	-	-	-	-	-	57.3	**F**	8.7	A
23	N Akers St & W Riggin Ave	AM	132.7	**F**	44.7	D	132.7	**F**	44.7	D	ECL	**F**	52.1	D
		PM	ECL	**F**	30.4	C	ECL	**F**	30.4	C	ECL	**F**	34.7	C
24	N Akers St & W Ferguson Ave	AM	64.6	**E**	49.2	D	64.6	**E**	49.2	D	69.3	**E**	50.7	D
		PM	40.9	D	34.6	C	41.0	D	34.6	C	42.1	D	34.7	C
25	N Akers St & W Goshen Ave	AM	N/A - Proposed Turn Pocket Extensions Only											
		PM												

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
Traffic signals warranted under Near-Term Conditions - Intersections 15, and 20.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* and performed using Synchro 11.0

K:\SND_TPTO\195170025_Project Ritchie\ANALYSIS\EXCEL\[Shirk and Riggin Industrial Park_IN01.xlsm]HY Summary (MIT)

Improvement – Intersection #14

The LOS analysis shows this intersection is expected to operate at an overall acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. However, the proposed project is expected to generate a substantial amount of traffic to the subject intersection's movements, specifically the northbound left-turn movement during the AM peak hour and the eastbound right-turn movement during the PM peak hour. To provide sufficient storage capacity for northbound left-turns and reduce the probability of blocking thru traffic, it is recommended that the proposed project widen to provide dual northbound left-turn pockets (300-foot minimum). Since a 300-foot eastbound right-turn pocket would already be installed by the CIP project, additional recommendations are not proposed.

It should be noted that an eastbound right-turn overlap signal phase was evaluated. While the addition of overlap would reduce the eastbound queue to less than the pocket's length (300-feet), it is assumed to not be desired by City at this time since it may limit access to a potential development on the southwest corner in the future.

INTERSECTION #15 – N SHIRK ST & W SUNNYVIEW AVE/FERGUSON AVE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Near-Term (2025) Conditions Plus Phase 1 (PM peak hour)
- Near-Term (2026) Conditions Plus Phase 2 (AM and PM peak hours)
- Near-Term (2028) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2033) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2038) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2048) Conditions Plus Project Build-Out (AM and PM peak hours)

Under Near-Term (2025) Conditions Plus Phase 1, the proposed project is projected to contribute to an intersection deficiency. Under the ensuing scenarios, the intersection continues to operate at an unacceptable LOS with the proposed project and increases in intersection delay.

Improvement – Intersection #15

To alleviate the intersection LOS deficiency, it is recommended that the proposed project signalize the intersection, subject to pro rata cost sharing with CASP. This improvement would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for all intersection turn pockets below the storage capacity. The intersection satisfies the CA MUTCD traffic signal warrants 1 and 2 for all Near-Term baseline and Plus Project scenarios.

It should be noted that the improvement costs at this intersection are expected to be shared by CASP and the proposed project as it provides access to both sites.

INTERSECTION #19 – N ROEBEN ST & W RIGGIN AVE

This intersection is located along the CASP project frontage and provides direct access to the site. The deficiencies identified are a direct result of the CASP project traffic and would be alleviated by the signalization, installation of left-turn pockets, and other access improvements by CASP in year 2028. Therefore, no recommended improvements or cost sharing are recommended for the proposed project.

INTERSECTION #20 – N ROEBEN ST & W FERGUSON AVE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Long-Term (2048) Conditions Plus Project Build-Out (PM peak hour)

Under Long-Term (2048) Conditions Plus Project Build-Out, the proposed project is projected to contribute to an intersection deficiency.

Improvement – Intersection #20

Since this intersection LOS deficiency is expected to occur after the 2028, primarily due to the addition of CASP project's build-out traffic, it is recommended that the proposed project make a 26.2% fair share contribution towards signalizing the intersection. Based on the estimated signalization and interconnect cost of $500,000, the proposed project would contribute up to $131,000 for these future improvements. The addition of these intersection improvements is expected to improve overall intersection LOS operations to acceptable. The intersection does not satisfy the CA MUTCD traffic signal warrants for any Near-Term baseline and Plus Project scenarios. The City may elect to fund other improvements, should the intersection not meet CA MUTCD traffic signal warrants in the future.

INTERSECTION #23 – N AKERS STREET & W RIGGIN AVENUE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Near-Term (2025) Conditions Plus Phase 1 (AM peak hour)
- Near-Term (2026) Conditions Plus Phase 2 (AM peak hour)
- Near-Term (2028) Conditions Plus Project Build-Out (AM peak hours)
- Long-Term (2033) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2038) Conditions Plus Project Build-Out (AM and PM peak hours)
- Long-Term (2048) Conditions Plus Project Build-Out (AM and PM peak hours)

Under Near-Term (2025) Conditions Plus Phase 1, the proposed project is projected to contribute to an intersection deficiency. Under the ensuing scenarios, the intersection continues to operate at an unacceptable LOS with the proposed project and increases in intersection delay.

Improvement – Intersection #23

To alleviate the intersection LOS deficiency, it is recommended that the proposed project restripe the roadway to provide an additional northbound left-turn pocket and thru lane, and provide an additional eastbound / westbound through lane. Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 300-foot pocket.

It should be noted that the intersection is under construction as of June 2023. It is anticipated that all or a portion these improvements would be constructed. The improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

INTERSECTION #24 – N AKERS ST & W FERGUSON AVE

Level of Service

The proposed project is expected to result in a LOS deficiency during the following conditions:

- Near-Term (2026) Conditions Plus Phase 2 (AM peak hour)
- Near-Term (2028) Conditions Plus Project Build-Out (AM peak hour)
- Long-Term (2033) Conditions Plus Project Build-Out (AM peak hour)
- Long-Term (2038) Conditions Plus Project Build-Out (AM peak hour)
- Long-Term (2048) Conditions Plus Project Build-Out (AM peak hour)

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to contribute to an intersection deficiency. Under the ensuing scenarios, the intersection continues to operate at an unacceptable LOS with the proposed project and increases in intersection delay.

Queuing

The proposed project is expected to result in a queuing deficiency for the following conditions:

- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – NBL
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – NBL

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to cause a queueing deficiency since it would increase the queue length by more than 25 feet. Under the ensuing scenario, the queueing increases further.

Improvement – Intersection #24

To alleviate the intersection LOS deficiency, it is recommended that the proposed project provide a southbound right-turn pocket (150-foot min), restripe the northbound right-turn lane to a thru lane, and stripe a northbound right-turn pocket (150-foot min), and to provide an eastbound right-turn pocket (150-foot min). Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 215-foot pocket.

It should be noted that the improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

INTERSECTION #25 – N AKERS ST & W GOSHEN AVE

Queuing

The proposed project is expected to result in a queuing deficiency for the southbound left-turn pocket for the following conditions:

- Near-Term (2026) Plus Phase 2 (AM and PM peak hours) – SBL
- Near-Term (2028) Plus Project Build-Out (AM and PM peak hours) – SBL

Under Near-Term (2026) Conditions Plus Phase 2, the proposed project is projected to cause a queueing deficiency since it would increase the queue length by more than 25 feet. Under the ensuing scenario, the queueing increases further.

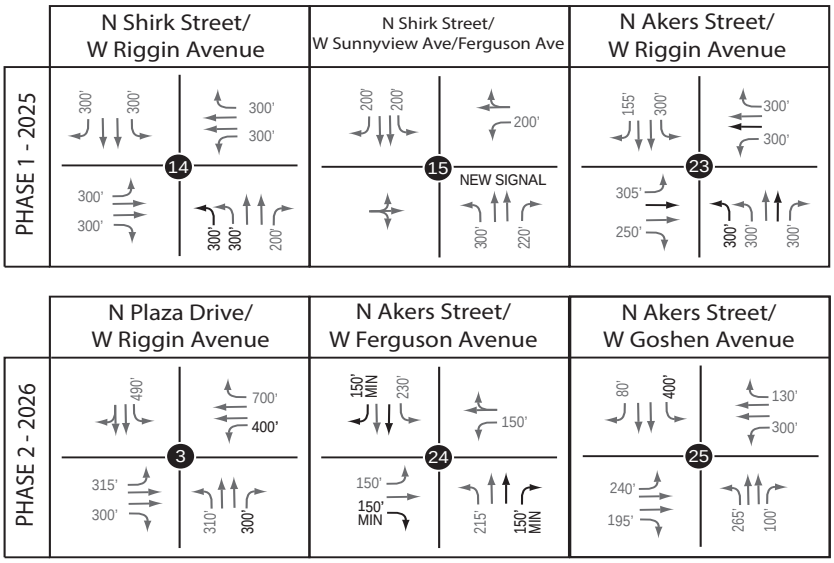
Improvement – Intersection #25

The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. It is recommended that the proposed project modify the raised median to extend the existing southbound left-turn pocket to approximately 400-feet, which is the maximum length that is able to be achieved without reducing the northbound left-turn pocket at N Akers St & Elowin Ave.

It should be noted that the improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

Figure 36 illustrates the recommended off-site improvements for each Phase of development. **Table 21** summarizes the LOS deficiencies and recommended improvements, broken down by development phase it is required for.

FIGURE 36 SUMMARY OF OFFSITE RECOMMENDATIONS



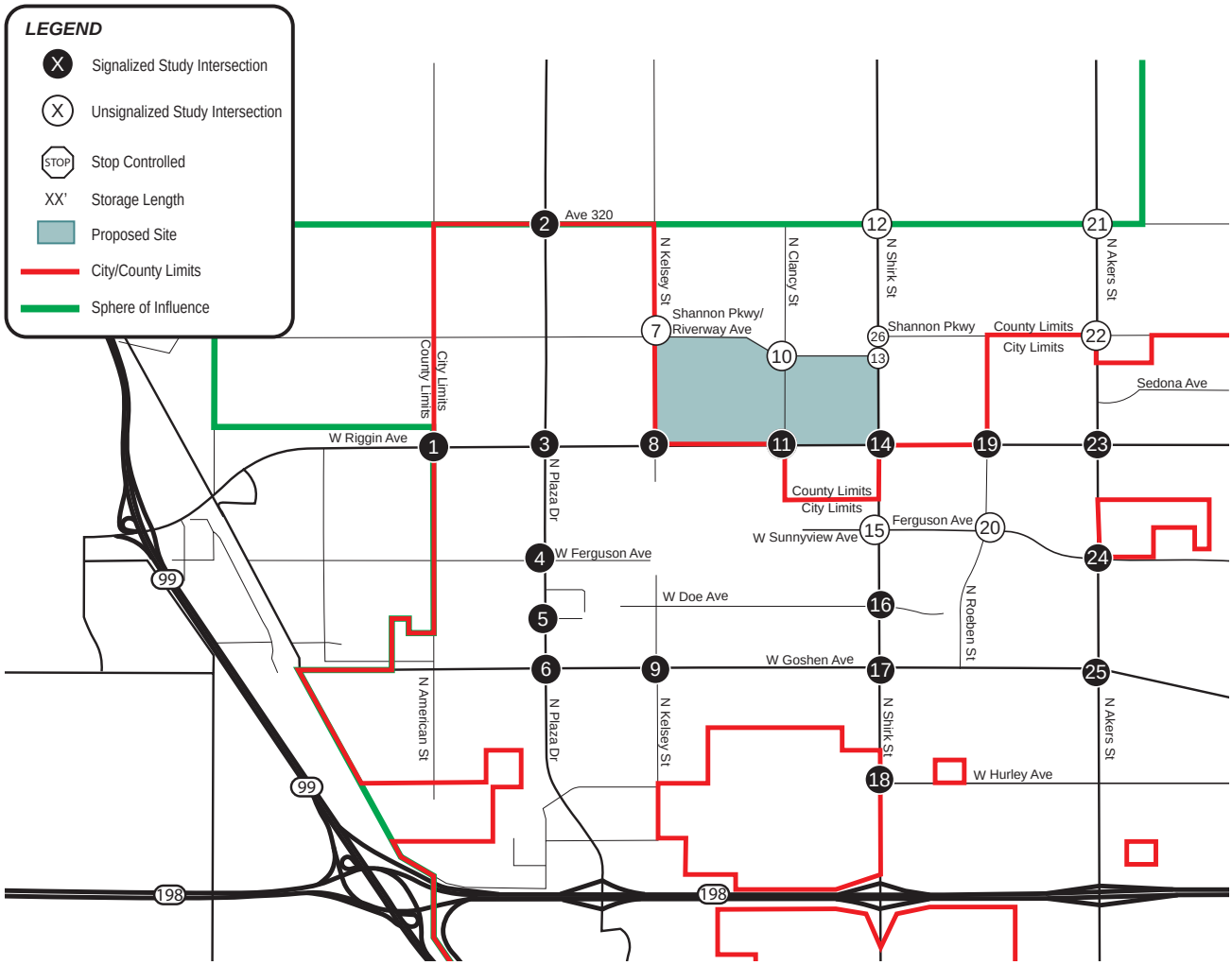


TABLE 22 SUMMARY OF OFF-SITE RECOMMENDATIONS

SUMMARY OF OFF-SITE RECOMMENDATIONS

#	Intersection	Deficiency Type	Scenario with Proposed Project-Related Deficiency						Required Mitigation Measure	Project Contribution
			Near-Term (2025) Conditions Plus Phase 1	Near-Term (2026) Conditions Plus Phase 2	Near-Term (2028) Conditions Plus Project Build-Out	Long-Term (2033) Conditions Plus Project Build-Out	Long-Term (2038) Conditions Plus Project Build-Out	Long-Term (2048) Conditions Plus Project Build-Out		
3	N Plaza Drive / W Riggin Avenue	LOS	-	-	-	-	-	-	**Improvement**: The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. Since LOS is acceptable and since the westbound left-turns movements are projected to just exceed 300 turning movements for the Near-Term (2028) Plus Project Build-Out scenario (242 AM / 302 PM), dual left-turn pockets are not suggested at this time. It is recommended that the proposed project modify the raised median to extend the existing westbound left-turn pocket by 100-feet, to provide 400-foot left-turn pocket. It is also recommended that the existing northbound right-turn stripe be extended to 300-feet.	**100%**
		QUEUE	-	**X**	**X**	N/A	N/A	N/A		
14	N Shirk Street / W Riggin Avenue	LOS	-	-	-	-	-	-	**Improvement**: The LOS analysis shows this intersection is expected to operate at an overall acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. However, the proposed project is expected to generate a substantial amount of traffic to the subject intersection's movements, specifically the northbound left-turn movement during the AM peak hour and the eastbound right-turn movement during the PM peak hour. To provide sufficient storage capacity for northbound left-turns and reduce the probability of blocking thru traffic, it is recommended that the proposed project widen to provide dual northbound left-turn pockets (300-foot minimum). Since a 300-foot eastbound right-turn pocket would already be installed by the CIP project, additional recommendations are not proposed.	**100%**
		QUEUE	**X**	**X**	**X**	N/A	N/A	N/A		
15	N Shirk Street / W Sunnyview Avenue & Ferguson Avenue	LOS	**X**	**X**	**X**	**X**	**X**	**X**	**Improvement**: To alleviate the intersection LOS deficiency, it is recommended that the proposed project signalize the intersection, subject to pro rata cost sharing with CASP. This improvement would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for all intersection turn pockets below the storage capacity. The intersection satisfies the CA MUTCD traffic signal warrants 1 and 2 for all Near-Term baseline and Plus Project scenarios.	**(a)**
		QUEUE	-	-	-	N/A	N/A	N/A		
20	N Roeben Street / W Ferguson Avenue	LOS	-	-	-	-	-	**X**	**Improvement**: Since this intersection LOS deficiency is expected to occur after the 2028, primarily due to the addition of CASP project's build-out traffic, it is recommended that the proposed project make a 26.2% fair share contribution towards signalizing the intersection. Based on the estimated signalization and interconnect cost of $500,000, the proposed project would contribute up to $131,000 for these future improvements. The addition of these intersection improvements is expected to improve overall intersection LOS operations to acceptable. The intersection does not satisfy the CA MUTCD traffic signal warrants for any Near-Term baseline and Plus Project scenarios. The City may elect to fund other improvements, should the intersection not meet CA MUTCD traffic signal warrants in the future.	**26.2% ($131,000)**
		QUEUE	-	-	-	N/A	N/A	N/A		
23	N Akers Street / W Riggin Avenue	LOS	**X**	**X**	**X**	**X**	**X**	**X**	**Improvement**: To alleviate the intersection LOS deficiency, it is recommended that the proposed project restripe the roadway to provide an additional northbound left-turn pocket and thru lane, and provide an additional eastbound / westbound through lane. Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 300-foot pocket.	**(b)**
		QUEUE	-	-	-	N/A	N/A	N/A		
24	N Akers Street / W Ferguson Avenue	LOS	-	**X**	**X**	**X**	**X**	**X**	**Improvement**: To alleviate the intersection LOS deficiency, it is recommended that the proposed project provide a southbound right-turn pocket (150-foot min), restripe the northbound right-turn lane to a thru lane, and stripe a northbound right-turn pocket (150-foot min), and to provide an eastbound right-turn pocket (150-foot min). Updating the lane geometry on these legs would allow the intersection to operate at an acceptable LOS for the deficient scenarios, while reducing the vehicles queues for the northbound left-turn pocket to fit within the 215-foot pocket.	**(a)**
		QUEUE	-	**X**	**X**	N/A	N/A	N/A		
25	N Akers Street / W Goshen Avenue	LOS	-	-	-	-	-	-	**Improvement**: The LOS analysis shows this intersection is expected to operate at an acceptable LOS during the AM and PM peak periods of all Near-Term and Long-Term scenarios analyzed. It is recommended that the proposed project modify the raised median to extend the existing southbound left-turn pocket to approximately 400-feet, which is the maximum length that is able to be achieved without reducing the northbound left-turn pocket at N Akers St & Elowin Ave.	**(a)**
		QUEUE	-	**X**	**X**	N/A	N/A	N/A		

Note:
(a) Improvement costs at this intersection are expected to be shared by CASP and the proposed project as it provides access to both sites.
(b) The intersection was under construction as of June 2023. It is anticipated that all or a portion these improvements would be constructed. The improvement costs at this intersection are expected to be shared by CASP, the proposed project and others as it provides access to multiple sites under development.

SITE ACCESS RECOMMENDATIONS (NON-CEQA)

Access to the proposed project would be established through the construction of nineteen (19) driveways, which would satisfy the minimum spacing requirements identified by the City's Design and Improvement Standards (C-32). The southernmost driveway along N Shirk Street (Driveway 19) would align with the neighboring driveway for the recently approved Costco development (22-071), which is proposed to be signalized as part of their opening day access requirements. All other eighteen (18) driveways are proposed to be unsignalized. The following summarizes the project access locations:

Phase 1 (2025)

- Project Driveway 1 (N Kelsey Street)
    - Construct full-access driveway approximately 2,525-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide two (2) outbound lanes to separate right and left turning traffic;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Kelsey St.
- Project Driveways 2 & 4 (N Kelsey Street)
    - Construct full-access driveways approximately 925-feet and 2,200-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Kelsey St.
- Project Driveways 3 & 5 (N Kelsey Street)
    - Construct full-access driveways approximately 325-feet and 1,475-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide two (2) outbound lanes to separate right and left turning traffic;
    - Provide stop-control for outbound movements;
    - Provide northbound right-turn pocket (100-foot minimum); and
    - Stripe two-way left-turn lane along N Kelsey St.
- Project Driveways 7, 8, & 10 (N Clancy St)
    - Construct full-access driveways approximately 550-feet, 1,575-feet and 2,050-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Clancy St.
- Project Driveway 9 (N Clancy St)
    - Construct full-access driveway approximately 1,075-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Clancy St.

Phase 2 (2026)

- Project Driveway 6 (W Riggin Ave)
    - Construct limited-access (outbound left-turn restricted) driveway approximately 1,300-feet east of N Kelsey Street;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide westbound right-turn pocket (150-foot minimum); and
    - 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
- Project Driveways 11 & 14 (N Clancy St)
    - Construct full-access driveways approximately 550-feet and 2,050-feet north of W Riggin Avenue;
    - Design driveways to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements;
    - Provide northbound right-turn pocket (100-foot minimum); and
    - Stripe two-way left-turn lane along N Clancy St.
- Project Driveways 12 & 13 (N Clancy St)
    - Construct full-access driveways approximately 1,075-feet and 1,575-feet north of W Riggin Avenue;
    - Provide one (1) outbound lane;
    - Provide stop-control for outbound movements; and
    - Stripe two-way left-turn lane along N Clancy St.
- Project Driveway 16 (W Riggin Ave)
    - Construct right-in/right-out driveway approximately 375-feet west of N Shirk Street;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide westbound right-turn pocket (150-foot minimum), extending to the transit pad/pullout on the northwest corner of N Shirk St / W Riggin Ave; and
    - Raised median along W Riggin Ave constructed as part of City's CIP.
- Project Driveway 19 (N Shirk St)
    - Construct full-access driveway approximately 660-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide southbound right-turn pocket (150-foot minimum);
    - Provide northbound left-turn pocket (200-foot minimum);
    - Provide eastbound left-turn pocket (150-foot minimum) and through/right-turn lane; and
    - Modify the traffic signal installed by the recently approved Costco development (22-071) or coordinate with Costco development team for implementation of these improvements as part of their opening day access requirements.

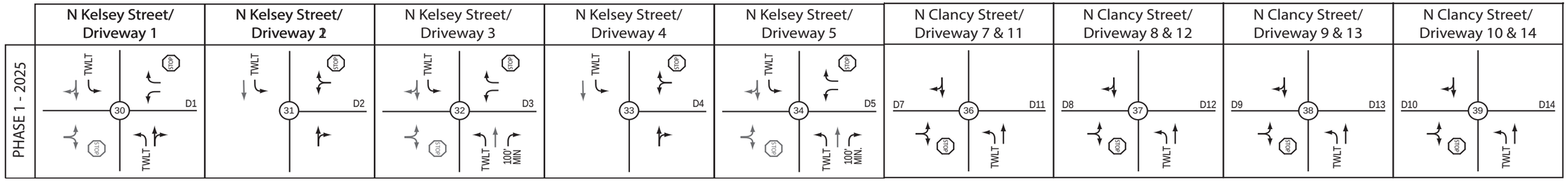
Phase 3 (2028)

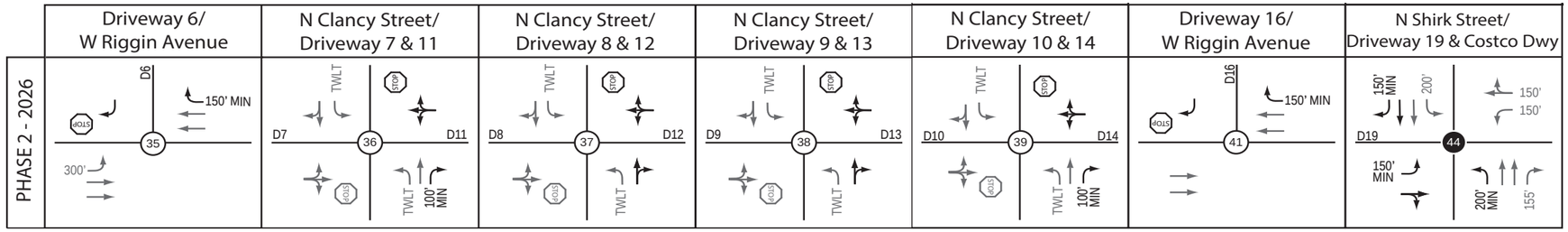
- Project Driveway 15 (W Riggin Ave)
    - Construct limited-access (outbound left-turn restricted) driveway approximately 1,250-feet west of N Shirk Street;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide westbound right-turn pocket (150-foot minimum); and
    - 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
- Project Driveway 17 (N Shirk St)
    - Construct right-in/right-out driveway approximately 1,950-feet north of W Riggin Avenue;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Construct the raised median along N Shirk St to restrict left-turn movements; and
    - Provide southbound right-turn pocket (150-foot minimum).
- Project Driveway 18-Sedona Ave (N Shirk St)
    - Construct limited-access (outbound left-turn restricted) driveway approximately 1,325-feet north of W Riggin Avenue, along the Sedona Avenue roadway alignment;
    - Design driveway to accommodate inbound/outbound truck turning paths;
    - Provide one (1) outbound lane for right-turning vehicles;
    - Provide stop-control for outbound movements;
    - Provide 300-foot northbound left-turn pocket within median along N Shirk St to restrict outbound left-turns; and
    - Provide southbound right-turn pocket (150-foot minimum).

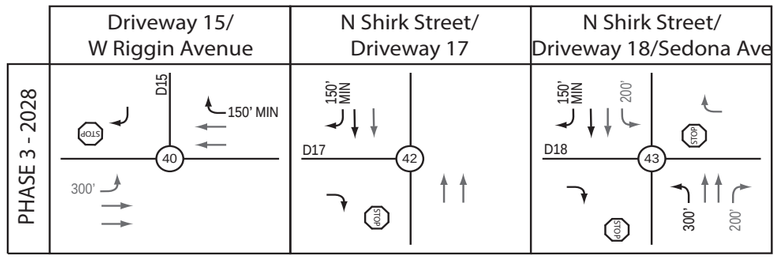
Figure 37 summarizes the recommended access improvements for each phase of development. **Table 22** summarizes the access improvements, broken down by development phase it is required for.

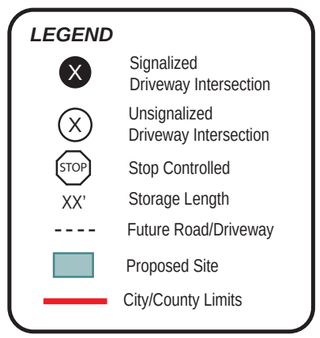
The proposed project shall maintain visibility for each access driveway so that vehicles exiting the driveways are able to observe oncoming vehicles along the intersecting roadway. These obstructions may include landscaping, monument signs, utility cabinets, etc. but would exclude signal poles, streetlights, and traffic signs.

FIGURE 37 SUMMARY OF ACCESS RECOMMENDATIONS









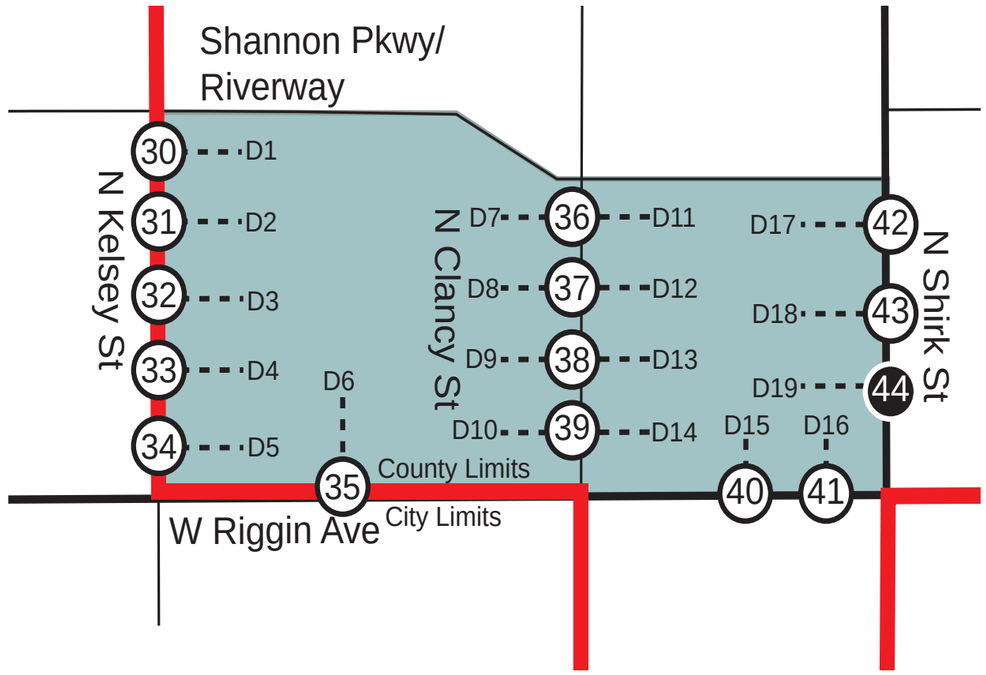


TABLE 23 SUMMARY OF ACCESS RECOMMENDATIONS

SUMMARY OF ACCESS RECOMMENDATIONS

#	Driveway	Access Recommendation
Phase 1 (2025)		
30	N Kelsey St & Driveway 1	Construct full-access driveway approximately 2,525-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide two (2) outbound lanes to separate right and left turning traffic; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Kelsey St.
31	N Kelsey St & Driveway 2	Construct full-access driveway approximately 2,200-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Kelsey St.
32	N Kelsey St & Driveway 3	Construct full-access driveway approximately 1,475-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide two (2) outbound lanes to separate right and left turning traffic; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Kelsey St.
33	N Kelsey St & Driveway 4	Construct full-access driveway approximately 925-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Kelsey St.
34	N Kelsey St & Driveway 5	Construct full-access driveway approximately 325-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide two (2) outbound lanes to separate right and left turning traffic; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Kelsey St.
36	Future N Clancy St & Driveway 7	Construct full-access driveway approximately 2,050-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
37	Future N Clancy St & Driveway 8	Construct full-access driveway approximately 1,575-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
38	Future N Clancy St & Driveway 9	Construct full-access driveway approximately 1,075-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
39	Future N Clancy St & Driveway 10	Construct full-access driveway approximately 550-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
Phase 2 (2026)		
35	W Riggin Ave & Driveway 6	Construct limited-access (outbound left-turn restricted) driveway approximately 1,300-feet east of N Kelsey Street; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide westbound right-turn pocket (150-foot minimum); and 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
36	Future N Clancy St & Driveway 11	Construct full-access driveway approximately 2,050-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Clancy St.
37	Future N Clancy St & Driveway 12	Construct full-access driveway approximately 1,575-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
38	Future N Clancy St & Driveway 13	Construct full-access driveway approximately 1,075-feet north of W Riggin Avenue; Provide one (1) outbound lane; Provide stop-control for outbound movements; and Stripe two-way left-turn lane along N Clancy St.
39	Future N Clancy St & Driveway 14	Construct full-access driveway approximately 550-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane; Provide stop-control for outbound movements; Provide northbound right-turn pocket (100-foot minimum); and Stripe two-way left-turn lane along N Clancy St.
41	W Riggin Ave & Driveway 16	Construct right-in/right-out driveway approximately 375-feet west of N Shirk Street; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide westbound right-turn pocket (150-foot minimum), extending to the transit pad/pullout on the northwest corner of N Shirk St / W Riggin Ave; and Raised median along W Riggin Ave constructed as part of City's CIP.
44	N Shirk St & Driveway 19-Costco Driveway	Construct full-access driveway approximately 660-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide southbound right-turn pocket (150-foot minimum); Provide northbound left-turn pocket (200-feet minimum); Provide eastbound left-turn pocket (150-feet minimum) and through/right-turn lane; and Modify the traffic signal installed by the proposed Costco development (22-071) or coordinate with Costco development team for implementation of these improvements as part of their opening day access requirements.
Phase 3 (2028)		
40	W Riggin Ave & Driveway 15	Construct limited-access (outbound left-turn restricted) driveway approximately 1,250-feet west of N Shirk Street; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide westbound right-turn pocket (150-foot minimum); and 300-foot eastbound left-turn pocket and raised median constructed as part of City's CIP.
42	N Shirk St & Driveway 17	Construct right-in/right-out driveway approximately 1,950-feet north of W Riggin Avenue; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Construct the raised median along N Shirk St to restrict left-turn movements; and Provide southbound right-turn pocket (150-foot minimum).
43	N Shirk St & Driveway 18-Sedona Ave	Construct limited-access (outbound left-turn restricted) driveway approximately 1,325-feet north of W Riggin Avenue, along the Sedona Avenue roadway alignment; Design driveway to accommodate inbound/outbound truck turning paths; Provide one (1) outbound lane for right-turning vehicles; Provide stop-control for outbound movements; Provide 300-foot northbound left-turn pocket within median along N Shirk St to restrict outbound left-turns; and Provide southbound right-turn pocket (150-foot minimum).

Note: For the purposes of the TIA and in accordance with the applicant's project development goals, construction of the proposed project is anticipated to begin in March 2024 and completed in March 2028, with operations commencing upon the completion of construction of the proposed project. As described above, given its size and nature, it is reasonable to assume the proposed project would be constructed in phases over time. However, because various market, economic and other considerations would ultimately determine how construction phasing would occur in connection with individual specific development proposal(s), this TIA utilizes the following assumptions based on reasonably available information for purposes of a conservative analysis:

PROPOSED OFF-SITE ROADWAY IMPROVEMENT RECOMMEDATIONS (NON-CEQA)

Proposed off-site roadway improvements would be constructed by the proposed project along W Riggin Avenue, N Kelsey Street, N Clancy Street and N Shirk Street. **Appendix D** contains concept drawings of the proposed frontage for the proposed project's Buildout conditions, and also includes concepts of the Phase 1 and Phase 2 interim conditions.

W RIGGIN AVENUE

The proposed project would dedicate the right-of-way adjacent to south side of the project site for a 4-Lane Arterial, which is planned to be constructed by the City/other third parties prior to the completion of the proposed project's Phase 1 construction, as part of the already-approved Riggin Widening & Improvements CIP project. Chapter 5 provides further details related to these CIP improvements. The proposed project would construct sidewalk and parkway along the north side of the street, along the proposed project's frontage. The proposed project would construct and signalize the new intersection at N Clancy Street (Signal Warrant Analysis to follow). One (1) right-in/right-out, stop-controlled driveway and two (2) limited-access (outbound left-turn restricted), stop-controlled driveways would be constructed along W Riggin Avenue.

The CIP project would provide a cross-section with two travel lanes and a Class II bike lane in each direction, Eastbound and westbound left-turn pockets would be provided at N Clancy Street, and eastbound left-turn pockets at the two (2) limited access driveways. A bus turnout/stop at the northwest corner of N Shirk Street / W Riggin Avenue would also be provided.

The timing of the proposed project's sidewalk, parkway, and access improvements would be the following:

- Phase 1
    - Construct and signalize intersection of N Clancy Street
- Phase 2
    - Construct sidewalk, parkway, and one (1) driveway access between N Kelsey Street and N Clancy Street (approximately half-mile)
    - Construct sidewalk, parkway, and one (1) driveway adjacent to commercial development near N Shirk Street intersection (approximately 600-feet)
- Phase 3
    - Construct sidewalk, parkway, and one (1) driveway between N Clancy Street and commercial development (approximately 1,950-feet)

N KELSEY STREET

The proposed project would dedicate and improve the right-of-way adjacent to the west side of the project site for half street improvements along the eastern half of N Kelsey Street for a 2-Lane Collector. These improvements would complete the street's full curb-to-curb width since the west side of road was recently constructed in 2022. The proposed project would also construct sidewalk and parkway improvements along the east side of street, along the proposed project's frontage. The cross-section would include one travel lane, a Class II bike lane and parking in both directions. A center two-way left-turn lane would also be

provided. The intersection and existing traffic signal at W Riggin Avenue would be modified for these improvements. Five (5) full-access, stop-controlled driveways would be constructed along N Kelsey Street.

All roadway, sidewalk, parkway, and access improvements along east side of N Kelsey Street would occur during the construction of Phase 1 (approximately half-mile).

N CLANCY STREET

The proposed project would dedicate and improve the entire street's right-of-way along the project site for a 2-Lane Collector. A cul-de-sac would be constructed at the north terminus, just south of the existing drainage channel and south of the future Shannon Parkway alignment (planned collector). The proposed project would construct sidewalk and parkway improvements along both sides of the street, north of W Riggin Avenue. The cross-section would include one travel lane, a Class II bike lane and parking in both directions. A center two-way left-turn lane would also be provided. The proposed project would construct and signalize the new intersection at W Riggin Avenue (Signal Warrant Analysis to follow). Eight (8) full-access, stop-controlled driveways would be constructed along N Clancy Street.

The timing of the proposed project's roadway, sidewalk, parkway, and access improvements would the following:

- Phase 1
    - Construct sidewalk, parkway, and four (4) driveway access on west side of N Clancy Street (approximately 2,050-feet)
    - Construct west half of the roadway
- Phase 2
    - Construct sidewalk, parkway, and four (4) driveway access on east side of N Clancy Street (approximately 2,050-feet)
    - Construct east half of the roadway

N SHIRK STREET

The proposed project would dedicate and improve the right-of-way adjacent to the east side of project site for half street improvements along the western half of N Shirk Street for a 4-Lane Arterial. The proposed project would also construct sidewalk and parkway improvements on the west side of street, along the proposed project's frontage. These improvements would complete the street's full curb-to-curb width since the east side of road would be constructed as part of the separate Carlton Acres Specific Plan (CASP) phase 1 development. The cross-section would include two travel lanes and a Class II bike lane in each direction, with a center raised median. A 300-foot left-turn pocket into the project site would be provided at W Sedona Avenue, a limited-access (outbound left-turn restricted), stop-controlled driveway. A 200-foot left-turn pocket into the project site would be provided at project driveway 19 (signalized by CASP phase 1 development). One (1) right-in/right-out, stop-controlled driveway would be constructed along N Shirk Street.

The timing of the proposed project's roadway, sidewalk, parkway, and access improvements would the following:

- Phase 2
    - Construct roadway, sidewalk, parkway, and one (1) driveway adjacent to commercial development north of W Riggin Avenue intersection (approximately 900-feet)
- Phase 3
    - Construct roadway, sidewalk, parkway, and two (2) driveways between limits of Phase 2 improvements and north of the proposed project's frontage (approximately 1,200-feet)

ADDITIONAL RECOMMEDATIONS (NON-CEQA)

The proposed project would dedicate a 25-foot setback (measured from top toe of the bank) along Modoc Ditch to meet storm drain and flood control requirements. This setback would provide space for the planned Class I bikeway along the Murdoc Ditch (see VMT mitigation above). The City would reimburse the proposed project for 13-feet of the setback, for the potion not encumbered for a maintenance road. This reimbursement would be funded by the Waterways and Trails Impact Fee fund.

APPENDIX

A – PROJECT TRAFFIC SCOPE OF WORK

B – TRANSIT SERVICES

C – EXISTING TRAFFIC VOLUME DATA SHEETS AND CALCULATIONS

D – PROJECT FRONTAGE IMPROVEMENTS

E – ITE TRIP GENERATION EXCERPTS

F – TCAG MODEL PLOTS AND DISTRIBUTION CALCULATIONS

G – LEVEL OF SERVICE CALCULATION SHEETS

H – PLANNED/APPROVED PROJECTS AND IMPROVEMENTS

I – CA MUTCD TRAFFIC SIGNAL WARRANTS

J – SWITRS COLLISION REPORT

K – FAIR-SHARE CALCULATIONS

L – TCAG MODEL PLOTS AND GROWTH CALCULATIONS

M – VEHICLE MILES TRAVELED INFORMATION

A – Project Traffic Scope of Work

August 1, 2022

Leslie Blair, P.E.
City of Visalia
315 E. Acequia Ave.
Visalia, CA 93291

RE: ***Scoping Letter Agreement for a Traffic Impact Analysis for the Proposed Industrial Park in the City of Visalia***

Dear Ms. Blair:

Kimley-Horn and Associates, Inc. is submitting this Scoping Letter Agreement to the City of Visalia to provide a Traffic Impact Analysis (TIA) for the proposed Shirk & Riggin Industrial Park (Project) located in the County of Tulare, just north of the City of Visalia.

PROJECT DESCRIPTION

Seefried Industrial Properties, (Applicant) proposes to develop approximately 280-acres of existing raw agricultural land with up to eight (8) industrial buildings, a flex industrial designated area with six (6) small buildings, an RV/Self-Storage space, and four (4) structures with commercial/retail uses. The site is proposed to be annexed into the City of Visalia and will require a CEQA Environmental Impact Report (EIR) and supporting documents and technical studies. Kimley-Horn will prepare the TIA as part of the entitlements for the Project in support to the Environmental Impact Report (EIR) and associated technical studies. The TIA will be based on the assumptions and parameters specified in the City of Visalia's *Procedures for Traffic Impact Analysis (TIA)*, updated March 2021, and input from City staff. The TIA will include a Local Transportation Analysis (LTA) for evaluation of Level Of Service (LOS), and a CEQA Transportation Analysis for the evaluation of Vehicle Miles Traveled (VMT). Kimley-Horn will identify any project-related LOS deficiencies and/or VMT impacts based on criteria within the City's TIA guidelines. A copy of the project site plan and construction phasing is provided in **Attachment 1**.

It is anticipated that the development will consist of three (3) development phases:

- Phase 1
  - 1,770.080 SF Industrial Park
- Phase 2
  - 830,700 SF Industrial Park
  - 6,900 SF Gas Station/Convenience Market (with 12 vehicle fueling stations)
  - 4,800 SF Fast-food Restaurant (with Drive-through)
  - 4,500 SF Car Wash
- Phase 3
  - 994,030 SF Industrial Park (including 80,960 SF Flex Industrial)
  - 133,800 SF Mini-Storage (with RV parking)

Vehicular access for the Project site would consist of consist of twenty-one (21) unsignalized driveways, detailed below:

- Phase 1
  - N Kelsey Street: five (5) full-access driveways
  - N Clancy Street: four (4) full-access driveways
- Phase 2
  - W Riggin Avenue: one (1) limited-access driveway (Outbound LT Restricted)
  - W Riggin Avenue: one (1) right-in/right-out driveway
  - N Clancy Street: four (4) full-access driveways
  - N Shirk Street: one (1) right-in/right-out driveway
- Phase 3
  - W Riggin Avenue: one (1) limited-access driveway (Outbound LT Restricted)
  - W Riggin Avenue: one (1) right-in/right-out driveway
  - N Shirk Street: two (2) right-in/right-out driveways
  - N Shirk Street: one (1) limited-access driveway (Outbound LT Restricted)

The opening years are anticipated to be early 2025, late 2026 and 2028 for full build-out.

SCOPE OF LOCAL TRANSPORTATION ANALYSIS

This scope is based on the City of Visalia's *Procedures for Traffic Impact Analysis (TIA)*, updated March 2021, which follows the current edition of the Highway Design Manual and the current California Department of Transportation policies, procedures, and standards.

Trip Generation and Analysis Category

Table 1 presents trip generation for the Project by phase. Trip generation estimates are based on the *Institute of Transportation Engineers (ITE) Trip Generation Manual* (11th Edition). Internal Capture reductions are based on Caltrans' guidance and Pass-By trip reductions are based on information from *ITE Trip Generation Manual* (11th Edition). Since the eastern half of the site is composed of mixed uses, internal capture and pass-by trip reductions are applied to the traffic generated by this side of the Project only. ITE Trip Generation excerpts and internal capture calculations are included in **Attachment 2**.

Analysis Category: The proposed full build-out of the Project is estimated to generate under 1,500 peak hour trips (1,441 AM / 1,427 PM). The City's TIA guidelines recommend a Category IV TIA for developments that generate between 1,000 and 1,500 peak hour trips. Since the Project is on the edge of the City, away from high density development, and under the 1,500 peak hour trip total, the Project would follow Analysis Category IV requirements.

Analysis Category	Development Characteristic	Study Horizons	Minimum Study Area
IV	Large Development 1,000-1,500 peak hour trips	• Opening year • 5 year • 10 year • 20 Year	• Site access drives • All major intersections within 1 mile (signalized/unsignalized) • All driveways/intersections where traffic movements could be affected by new driveway traffic movements • Additional locations requested by reviewing agency

Table 1A: Project Trip Generation - West

Land Use	Land Use as listed in ITE		Units[1]		Trip Rate[2]		Daily Trips	AM Peak-Hour						PM Peak-Hour					
								% of ADT[2]	In:Out Ratio[2]		In	Out	Total	% of ADT[2]	In:Out Ratio[2]		In	Out	Total
							Driveway Trips												
Total Proposed Vehicles																			
Phase 1	Land Use 130	Industrial Park	1770.1	ksf	3.37	/ ksf	5,965	10%	0.81	: 0.19	487	115	602	10%	0.22	: 0.78	132	470	602
Phase 2	Land Use 130	Industrial Park	317.5	ksf	3.37	/ ksf	1,070	10%	0.81	: 0.19	87	21	108	10%	0.22	: 0.78	24	84	108
Total Vehicle Subtotal							**7,035**				**574**	**136**	**710**				**156**	**554**	**710**
Proposed Trucks																			
Phase 1	Land Use 130	Industrial Park	1770.1	ksf	0.57	/ ksf	1,009	7%	0.45	: 0.55	32	39	71	7%	0.38	: 0.62	27	44	71
Phase 2	Land Use 130	Industrial Park	317.5	ksf	0.57	/ ksf	181	7%	0.45	: 0.55	6	7	13	7%	0.38	: 0.62	5	8	13
Truck Subtotal							**1,190**				**38**	**46**	**84**				**32**	**52**	**84**
PHASE 1 GROSS TRIP GENERATION =							5,965				487	115	602				132	470	602
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)							6,974				519	154	673				159	514	673
Pass-by Trip Reduction (PCE)											0	0	0				0	0	0
With Internal Capture Trip Reduction (PCE)											0	0	0				0	0	0
PHASE 1 NET TRIP GENERATION =							**6,974**				**519**	**154**	**673**				**159**	**514**	**673**
PHASE 1 & 2 NET TRIP GENERATION =							7,035				574	136	710				156	554	710
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)							8,225				612	182	794				188	606	794
With Pass-by Trip Reduction (PCE)											0	0	0				0	0	0
With Internal Capture Trip Reduction (PCE)											0	0	0				0	0	0
PHASE 1 & 2 NET TRIP GENERATION =							**8,225**				**612**	**182**	**794**				**188**	**606**	**794**
BUILDOUT GROSS TRIP GENERATION =							7,035				574	136	710				156	554	710
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)							8,225				612	182	794				188	606	794
Pass-by Trip Reduction (PCE)											0	0	0				0	0	0
With Internal Capture Trip Reduction (PCE)											0	0	0				0	0	0
BUILDOUT NET TRIP GENERATION =							**8,225**				**612**	**182**	**794**				**188**	**606**	**794**

Note:

1. ksf = Thousand Square Feet
2. Trip Rates per ITE Trip Generation Manual, 11th Edition; Industrial Park: LUC 130: Industrial Park; C-Store: LUC 945: Convenience Store/Gas Station: Subcategory VFP (9-15); Car Wash: LUC 947: Self-Service Car Wash; Drive-Thru: LUC 934: Fast-Food Restuarant with Drive-Through Window
3. Driveway trips are the total number of trips generated by a site.
4. Pass-by trip reductions based on ITE Trip Generation Manual, 11th Edition.

Land Use	AM	PM
Convenience Market with Gasoline Pumps LUC 945	76%	75%
Fast Food Restaurant with Drive-Through Window LUC 934	50%	55%

5. Internal capture trip reduction assumed to be 5% (per Caltrans maximum allowed).

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Table 2B: Project Trip Generation - East

Land Use		Land Use as listed in ITE	Units[1]		Trip Rate[2]		Daily Trips	AM Peak-Hour % of ADT[2]	AM Peak-Hour In:Out Ratio[2]	AM In	AM Out	AM Total	PM Peak-Hour % of ADT[2]	PM Peak-Hour In:Out Ratio[2]	PM In	PM Out	PM Total
Driveway Trips[3]																	
Total Proposed Vehicles																	
Phase 2	Land Use 130	Industrial Park	513.2	ksf	3.37 /	ksf	1,730	10%	0.81 : 0.19	141	34	175	10%	0.22 : 0.78	38	137	175
	Land Use 945	Convenience Store/Gas Station (VFP 9-15))	6.9	ksf	700.43 /	ksf	4,833	8%	0.50 : 0.50	195	195	390	8%	0.50 : 0.50	188	188	376
	Land Use 947	Self-Service Car Wash (1)	1.0	Wash Stall	108 /	Wash Sta	108	0%	0.00 : 0.00	0	0	0	5%	0.51 : 0.49	3	3	6
	Land Use 934	Fast-Food Restaurant w/ D.T.	4.8	ksf	467.48 /	ksf	2,244	10%	0.51 : 0.49	109	105	214	7%	0.52 : 0.48	82	77	159
Phase 3	Land Use 130	Industrial Park	779.3	ksf	3.37 /	ksf	2,626	10%	0.81 : 0.19	215	50	265	10%	0.22 : 0.78	58	207	265
	Land Use 151	Mini-Warehouse	133.8	ksf	1.45 /	ksf	194	6%	0.59 : 0.39	7	5	12	10%	0.47 : 0.53	9	11	20
Total Vehicle Subtotal							**11,735**			**667**	**389**	**1,056**			**378**	**623**	**1,001**
Proposed Trucks																	
Phase 2	Land Use 130	Industrial Park	513.2	ksf	0.57 /	ksf	293	7%	0.45 : 0.55	9	12	21	7%	0.38 : 0.62	8	13	21
Phase 3	Land Use 130	Industrial Park	779.3	ksf	0.57 /	ksf	444	7%	0.45 : 0.55	14	17	31	7%	0.38 : 0.62	12	19	31
	Land Use 151	Mini-Warehouse	133.8	ksf	0.04 /	ksf	5	0%	0.50 : 0.50	0	0	0	0%	0.50 : 0.50	0	0	0
Truck Subtotal			**1292.5**				**737**			**23**	**29**	**52**			**20**	**32**	**52**
PHASE 1 GROSS TRIP GENERATION =							0			0	0	0			0	0	0
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)							0			0	0	0			0	0	0
Pass-by Trip Reduction (PCE)										0	0	0			0	0	0
With Internal Capture Trip Reduction (PCE)										0	0	0			0	0	0
PHASE 1 NET TRIP GENERATION =							**0**			**0**	**0**	**0**			**0**	**0**	**0**
PHASE 1 & 2 NET TRIP GENERATION =							8,914			445	334	779			311	405	716
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)							9,207			454	346	800			319	418	737
With Pass-by Trip Reduction (PCE)										203	201	403			184	181	365
With Internal Capture Trip Reduction (PCE)										23	17	40			16	21	37
PHASE 1 & 2 NET TRIP GENERATION =							**9,207**			**229**	**128**	**357**			**119**	**216**	**335**
BUILDOUT GROSS TRIP GENERATION =							11,735			667	389	1,056			378	623	1,001
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)							12,471			690	418	1,108			398	655	1,053
Pass-by Trip Reduction (PCE)										203	201	403			184	181	365
With Internal Capture Trip Reduction (PCE)										35	21	55			20	33	53
BUILDOUT NET TRIP GENERATION =							**12,471**			**453**	**196**	**649**			**194**	**441**	**635**

Note:

1. ksf = Thousand Square Feet
2. Trip Rates per ITE Trip Generation Manual, 11th Edition; Industrial Park: LUC 130: Industrial Park; C-Store: LUC 945: Convenience Store/Gas Station: Subcategory VFP (9-15); Car Wash: LUC 947: Self-Service Car Wash; Drive-Thru: LUC 934: Fast-Food Restuarant with Drive-Through Window
3. Driveway trips are the total number of trips generated by a site.
4. Pass-by trip reductions based on ITE Trip Generation Manual, 11th Edition.

Land Use	AM	PM
Convenience Market with Gasoline Pumps LUC 945	76%	75%
Fast Food Restaurant with Drive-Through Window LUC 934	50%	55%

5. Internal capture trip reduction assumed to be 5% (per Caltrans maximum allowed).

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Table 3C: Project Trip Generation - Total

Land Use		Land Use as listed in ITE	Units[1]	Trip Rate[2]	Daily Trips	AM Peak-Hour				PM Peak-Hour			
						% of ADT[2]	In:Out Ratio[2]	In	Out	Total	% of ADT[2]	In:Out Ratio[2]	In	Out	Total
					Driveway Trips[3]										
Total Proposed Vehicles															
Phase 1	Land Use 130	Industrial Park	1770.1 ksf	3.37 / ksf	5,965	10%	0.81 : 0.19	487	115	602	10%	0.22 : 0.78	132	470	602
Phase 2	Land Use 130	Industrial Park	830.7 ksf	3.37 / ksf	2,799	10%	0.81 : 0.19	229	53	282	10%	0.22 : 0.78	62	220	282
	Land Use 945	Convenience Store/Gas Station (VFP 9-15))	6.9 ksf	700.43 / ksf	4,833	8%	0.50 : 0.50	195	195	390	8%	0.50 : 0.50	188	188	376
	Land Use 947	Self-Service Car Wash (1)	1.0 Wash Stall	108 / Wash Sta	108	0%	0.00 : 0.00	0	0	0	5%	0.51 : 0.49	3	3	6
	Land Use 934	Fast-Food Restaurant w/ D.T.	4.8 ksf	467.48 / ksf	2,244	10%	0.51 : 0.49	109	105	214	7%	0.52 : 0.48	82	77	159
Phase 3	Land Use 130	Industrial Park	779.3 ksf	3.37 / ksf	2,626	10%	0.81 : 0.19	215	50	265	10%	0.22 : 0.78	58	207	265
	Land Use 151	Mini-Warehouse	133.8 ksf	1.45 / ksf	194	6%	0.59 : 0.39	7	5	12	10%	0.47 : 0.53	9	11	20
Total Vehicle Subtotal					**18,770**			**1,242**	**523**	**1,765**			**534**	**1,176**	**1,710**
Proposed Trucks															
Phase 1	Land Use 130	Industrial Park	1770.1 ksf	0.57 / ksf	1,009	7%	0.45 : 0.55	32	39	71	7%	0.38 : 0.62	27	44	71
Phase 2	Land Use 130	Industrial Park	830.7 ksf	0.57 / ksf	473	7%	0.45 : 0.55	15	18	33	7%	0.38 : 0.62	13	20	33
Phase 3	Land Use 130	Industrial Park	779.3 ksf	0.57 / ksf	444	7%	0.45 : 0.55	14	17	31	7%	0.38 : 0.62	12	19	31
	Land Use 151	Mini-Warehouse	133.8 ksf	0.04 / ksf	5	0%	0.50 : 0.50	0	0	0	0%	0.50 : 0.50	0	0	0
Truck Subtotal			**3380.1**		**1,927**			**61**	**74**	**135**			**52**	**83**	**135**
PHASE 1 GROSS TRIP GENERATION =					5,965			487	115	602			132	470	602
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					6,974			519	154	673			159	514	673
Pass-by Trip Reduction (PCE)								0	0	0			0	0	0
With Internal Capture Trip Reduction (PCE)								0	0	0			0	0	0
PHASE 1 NET TRIP GENERATION =					**6,974**			**519**	**154**	**673**			**159**	**514**	**673**
PHASE 1 & 2 NET TRIP GENERATION =					15,949			1,020	468	1,488			467	958	1,425
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					17,432			1,067	525	1,592			507	1,022	1,529
With Pass-by Trip Reduction (PCE)								203	201	403			184	181	365
With Internal Capture Trip Reduction (PCE)								23	17	40			16	21	37
PHASE 1 & 2 NET TRIP GENERATION =					**17,432**			**842**	**307**	**1,149**			**307**	**820**	**1,127**
BUILDOUT GROSS TRIP GENERATION =					18,770			1,242	523	1,765			534	1,176	1,710
Passenger Car Equivalent (PCE = 2.0 per Visalia Guidelines)					20,696			1,303	597	1,900			586	1,259	1,845
Pass-by Trip Reduction (PCE)								203	201	403			184	181	365
With Internal Capture Trip Reduction (PCE)								35	21	55			20	33	53
BUILDOUT NET TRIP GENERATION =					**20,696**			**1,066**	**375**	**1,441**			**382**	**1,045**	**1,427**

Note:

1. ksf = Thousand Square Feet
2. Trip Rates per ITE Trip Generation Manual, 11th Edition; Industrial Park: LUC 130: Industrial Park; C-Store: LUC 945: Convenience Store/Gas Station: Subcategory VFP (9-15); Car Wash: LUC 947: Self-Service Car Wash; Drive-Thru: LUC 934: Fast-Food Restuarant with Drive-Through Window
3. Driveway trips are the total number of trips generated by a site.
4. Pass-by trip reductions based on ITE Trip Generation Manual, 11th Edition.

Land Use	AM	PM
Convenience Market with Gasoline Pumps LUC 945	76%	75%
Fast Food Restaurant with Drive-Through Window LUC 934	50%	55%

5. Internal capture trip reduction assumed to be 5% (per Caltrans maximum allowed).

K:\SND_TPTO\195170025_Project Ritchie\ANALYSIS\EXCEL\[Shirk and Riggin Industrial Park_TG01.xlsm]LU 130 - TOTAL

Study Time Frame

The following Study Horizons will be included in the Analysis:

- Existing (2022) Conditions
- Near-Term (2025) Conditions
- Near-Term (2025) Conditions Plus Phase 1
- Near-Term (2026) Conditions
- Near-Term (2026) Conditions Plus Phase 2
- Near-Term (2028) Conditions
- Near-Term (2028) Conditions Plus Project Build-Out
- Long-Term (2033) Conditions
- Long-Term (2033) Conditions Plus Project Build-Out
- Long-Term (2038) Conditions
- Long-Term (2038) Conditions Plus Project Build-Out
- Long-Term (2048) Conditions
- Long-Term (2048) Conditions Plus Project Build-Out

Study Area

The City's guidelines require an analysis of all access driveways and major intersections within 1-mile of the site for Type IV analysis, plus any additional locations requested by City. Per coordination with City staff, the following intersections will be evaluated by the study:

1. N American Street and W Riggin Avenue (Signalized)
2. N Plaza Drive and Avenue 320 (Unsignalized)
3. N Plaza Drive and W Riggin Avenue (Signalized)
4. N Plaza Drive and W Ferguson Avenue (Signalized)
5. N Plaza Drive and Future Access Road (Unsignalized)
6. N Plaza Drive and W Goshen Avenue (Signalized)
7. N Kelsey Street and Unnamed North Road (Unsignalized)
8. N Kelsey Street and W Riggin Avenue (Signalized)
9. N Kelsey Street and W Goshen Avenue (Signalized)
10. Future N Clancy Street and Unnamed North Road (Unsignalized)
11. Future N Clancy Street and W Riggin Avenue (Unsignalized)
12. N Shirk Street and Avenue 320 (Unsignalized)
13. N Shirk Street and Unnamed North Road (Unsignalized)
14. N Shirk Street and W Riggin Avenue (Unsignalized)
15. N Shirk Street and W Ferguson Avenue (Unsignalized)
16. N Shirk Street and W Doe Avenue (Unsignalized)
17. N Shirk Street and W Goshen Avenue (Signalized)
18. N Shirk Street and W Hurley Avenue (Signalized)
19. N Roeban Street and W Riggin Avenue (Unsignalized)
20. N Roeban Street and W Ferguson Avenue (Unsignalized)
21. N Akers Street and Avenue 320 (Unsignalized)
22. N Akers Street and Unnamed North Road (Unsignalized)
23. N Akers Street and W Riggin Avenue (Signalized)
24. N Akers Street and W Ferguson Avenue (Signalized)
25. N Akers Street and W Goshen Avenue (Signalized)

All twenty-one (21) access driveways at seventeen (17) locations would also be analyzed.

Attachment 3 identifies the proposed study intersections.

Analysis Time Period

The TIA will include an analysis of the project adjacent street systems, intersections, and site access drives listed in the preceding section during the AM (7-9) and PM (4-6) peak hour conditions. For signal warrants, the analysis time period would be between 6 AM to 8 PM.

Trip Distribution

Trip distribution would be developed using select zone model runs from the Tulare County Associate of Governments (TCAG) travel demand model.

Traffic Growth

For Near-Term 2025, 2026 and 2028 scenarios, an annual growth rate of 2% will be applied to existing traffic volumes to account for background growth, consistent with other TIAs performed within the City of Visalia. In addition, approved and pending project trips will be applied to the Near-Term scenarios. Kimley-Horn will request information from the City of Visalia concerning approved and pending project trips. Where approved trip generation and trip distribution information is not available, these assumptions will be developed by Kimley-Horn with methodology documented in report appendices. For future Long-Term 2033, 2038 and 2048 scenarios, forecast volumes will be developed using the Tulare County Association of Governments (TCAG) traffic projections.

Data Collection

Traffic Volumes: Intersection turning movement volumes will be collected at signalized locations during the AM (7-9) and PM (4-6) peak-hours. At unsignalized locations, intersection counts will be collected between 6 AM to 8 PM. 48-hour roadway directional volumes will be collected along W Riggin Avenue, N Kelsey Street and N Shirk Street for the development of driveway volumes. Vehicular classification will be obtained from the 48-hour count location along W Riggin Avenue for the development of heavy vehicle analysis assumptions.

Existing intersection turning movement volumes were collected at eighteen (18) of the study intersections in April/May 2022, when local schools were still in session. Per the City's request, seven (7) additional intersection turning movement volumes were collected in June 2022, after the summer break had commenced. To normalize the additional traffic data collected during the summer, 48-hour roadway counts were recollected at the same three (3) locations along W Riggin Avenue, N Kelsey Street and N Shirk Street, and a growth factor developed and applied to volumes collected. All methodology and calculations used to develop growth factor will be documented in TIA. This approach was approved by Leslie Blair via email on 6/22/2022, prior to data collection.

Roadway Conditions: Existing roadway conditions shall be identified including number of traffic lanes/configuration, medians, sidewalk, speed limits, and traffic control devices.

Crash Experience: Crash experience will be documented for the past 36-month time period for the study area intersections and site-adjacent roadways.

Additional Traffic Analysis

The Traffic Impact Study would include the following analysis:

- Capacity Analysis - Level of Service (LOS) conducted using Synchro software for study area intersections and scenarios
- Queuing Analysis: Evaluate turn lane queuing at study intersections for all scenarios using Synchro software
- Traffic Signal Needs - Eight-hour traffic signal warrants: Conducted at all unsignalized study intersections for the opening years and 5-year horizon and based on guidance in California's Manual on Uniformed Controlled Devices (CA MUTCD)
- Intersection and Driveway Geometrics
- Traffic Control Devices Requirements
- Right-turn lane requirements
- Onsite circulation
- Crash Summary: Document 36-month crash history for the site-adjacent roadways

SCOPE OF CEQA TRANSPORTATION ANALYSIS

Vehicle Miles Traveled Analysis

A Vehicle Miles Travel (VMT) analysis will be conducted following the City's Final VMT Threshold and Implementation Guidelines, dated March 2021. The City's guidelines do not have thresholds specifically for the Project's land use, therefore the Project will be evaluated based on the "other land uses" category. Based on the location of the Project, it is assumed that the Project can be accurately analyzed using the Tulare County Regional Transit Agency Travel Demand Model (TCAG TDM). Based on the size of the Project, it is assumed that the number of employees expected will require the TCAG TDM for analysis of the study area from which employees will travel. The Project's VMT impact will be assessed based on the net increase in County average VMT per employee. If the Project leads to a net increase in County average VMT per employee, mitigation strategies including Project specific improvements and areawide regional fees will be assessed.

AGENCY COORDINATION

Following approval from City of Visalia staff, Kimley-Horn will coordinate with the County of Tulare staff for the submittal and review of this TIA Scope of Work. Additional analysis requirements, if any, will be incorporated into the traffic study. Because of the similar analysis methodology/thresholds for the City and County CEQA VMT guidelines, it is expected that the Project would follow City of Visalia guidelines/requirements for VMT analysis. Since the City's LTA guidelines have further LOS analysis requirements (study area, scenarios, etc.), it is assumed that the Project would also follow City of Visalia LTA guidelines/requirements for LOS analysis.

Please contact me if you have any questions, comments, or concerns.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Joe Shultz, CA P.E. 84152

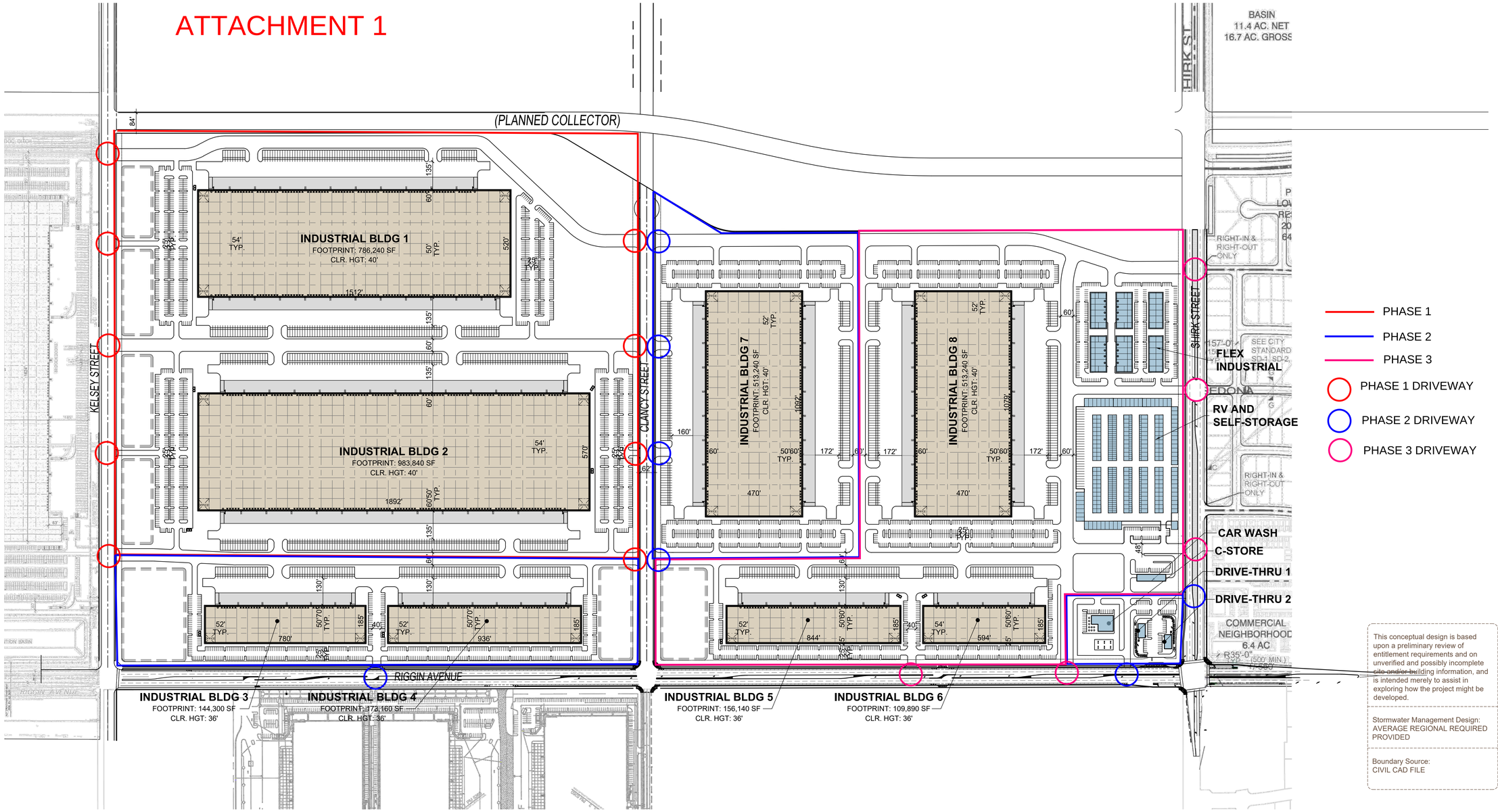
APPROVED:

By:

_____.

Leslie Blair, P.E.
City of Visalia

ATTACHMENT 1



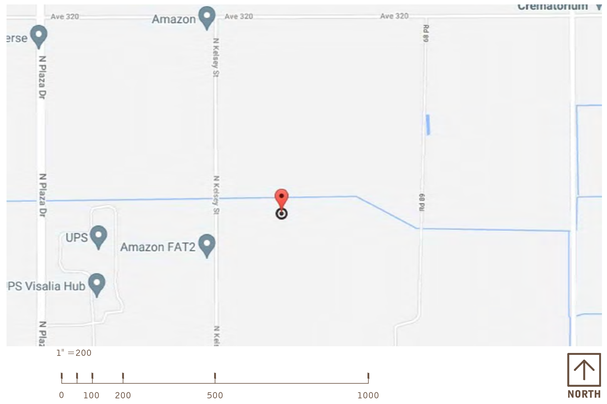
This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

Stormwater Management Design:
AVERAGE REGIONAL REQUIRED PROVIDED

Boundary Source:
CIVIL CAD FILE

PROJECT DATA:

SITE						BUILDING		GROSS	NET	PARKING				▲	○
SITE	SITE AREA (SF)	SITE AREA (ACRE)	DETENTION (SF)	DETENTION (%)	NET SITE AREA (SF)	BLDG.	BUILDING FOOTPRINT	GROSS COVERAGE	NET COVERAGE	PARKING PROVIDED	PARKING RATIO	REQ. ACC. STALLS	TRAILER PARKING	DOCK-HIGH DOORS	GRADE-LEVEL DOORS
1	12,194,988	279.96	1,363,370	11.2%	10,831,618	1	786,240	28.6%	32.2%	598	@0.76/1000 SF	*12 STALLS*	193	171	4
						2	1,078,440			687	@0.64/1000 SF	*14 STALLS*	246	214	4
						3	144,300			244	@1.69/1000 SF	*7 STALLS*	47	43	2
						4	173,160			275	@1.59/1000 SF	*7 STALLS*	60	54	2
						5	156,140			244	@1.56/1000 SF	*7 STALLS*	57	47	2
						6	109,890			177	@1.61/1000 SF	*6 STALLS*	37	29	2
						7	513,240			578	@1.13/1000 SF	*12 STALLS*	147	128	4
						8	513,240			528	@1.03/1000 SF	*11 STALLS*	147	128	4
						DRIVE-THRU 1	2,368				@0./1000 SF	*1 STALLS*	-	-	-
						DRIVE-THRU 2	2,368				@0./1000 SF	*1 STALLS*	-	-	-
						C-STORE	6,922				@0./1000 SF	*1 STALLS*	-	-	-
TOTAL	12,194,988	280	1,363,370	11.2%	10,831,618		3,486,309	28.6%	32.2%	3,331	@0.96/1000 SF	*93 STALLS*	934	814	24



scheme: 03

Conceptual Site Plan

Kelsey Street
Visalia, CA 93292

WARE MALCOMB

SNR21-0165-00
03.29.2022

SHEET
1

C:\JimTerry\Projects\Seefried\Visalia\SNR21-0165-00_SS03.dwg, 7/1/2022 7:30:00 AM, DWG To PDF.pc3

City of Visalia
315 E. Acequia, Visalia, CA 93291

Public Works
Engineering

August 10, 2022

Kimley – Horn
Joe Shultz, P.E.
401 B Street, Suite 600
San Diego, CA 92101

RE: Review of Revised Scoping Letter for TIA for Proposed Industrial Park, Visalia

Dear Mr. Shultz:

Thank you for the opportunity to review your revised scoping letter, dated August 1, 2022, and updated trip generation tables and site layout plan, titled "FollowUp Info", submitted by separate email on August 5, 2022, in preparation of the Traffic Impact Analysis (TIA) for the proposed Industrial Park located in the County of Tulare, just north of the Visalia City limits on Riggin Ave between Kelsey St and Shirk St. In response, the City has the following comments:

1. Per Table 1: Project Trip Generation provided in scoping letter and updated by supplement submitted in August 5, 2022 email, Project is projected to generate 1,476 trips in the AM peak hour and 1462 trips in the PM peak hour, and an internal trip capture of 5% was used. Attachment 1 Site Plan shows the Project is split into 2 sections. Clancey St, a north-south public road, divides the 2 sections. The western section is composed of a single land use, Industrial Park Land Use 130. The eastern section is composed of a mix of uses, Industrial Park Land Use 130, Convenience Store/Gas Station Land Use 945, Self-Service Car Wash Land Use 947, and Fast-Food Restaurant with Drive Thru Land Use 934. Per ITE Trip Generation Manual, internal capture rates are not applicable for trips within the same land use. In addition, all trips within the western section would be required to travel on the public roadway to the mixed-use development located in the eastern section of the Project. Hence, only the eastern section of the Project may utilize a 5% internal trip capture reduction.
2. Please provide a map depicting the phasing. Which buildings and what improvements are planned to be included in each phase? Will an internal road be constructed to connect the commercial/retail buildings located at the northwest corner of Shirk and Riggin to the industrial buildings in Phase 2 on the east side of Clancey? An internal road will be needed for Phase 2 in order to utilize the internal trip capture reduction. Otherwise, internal trip capture will only be allowed at buildout, not for Phase 2.

3. Project is projected to generate 1,476 trips in the AM peak hour. Per Table 1 of City of Visalia TIA Procedures, a development of this size requires a category IV analysis. 25 intersections have been identified to be included in the analysis and have been identified under Study Area of scoping letter.
4. Site layout titled "FollowUp Info" that was submitted by separate email, August 8, 2022, shows a revised site layout from the previous submittal dated June 13, 2022. Please note that the driveway on Riggin between Clancey and Shirk is required to be located at midpoint (1/4 mile) between Clancey and Shirk. Median worm (3/4 access) on Riggin required to be located at this driveway access point. On this latest site layout, the median worm and driveway do not align.
5. All project access driveways shall be included in the scope.
6. Shirk St, Site Access Driveways – Scoping letter states that Shirk St will have 3 right in/out driveways, and 1 limited access drive (no left outs). However, the site layout plan shows one of these driveways to be a full median opening (driveway that aligns with Sedona). A full opening is not allowed at this location. This is contrary to Site Plan Review SPR # 21-074 comments, see attached. Shirk St is an arterial and a median will be built restricting access. The Project driveway that aligns with Sedona Ave on the east side of Shirk St may have a ¾ access median break (right in/out, left in only). All other driveways on Shirk St are restricted to right in/out only. Any deviation will be required to be supported and justified by the traffic study. The intersection of Shannon Pkwy/Modoc and Shirk St will be the location for a full opening and site for future signalization. Minimum distance between driveways is 500-ft and from intersection is 200-ft. Refer to COV Standard C-32. Any deviation from City standard required to be supported and justified by the traffic study.
7. Riggin Ave (Clancy to Shirk) – ¾ median access break allowed at midpoint between Clancy and Shirk. Driveway to align with this location. All other driveways will be restricted to right in/out only. Spacing required to comply with City of Visalia Standard C-32 Drive Approach Locations.
8. Riggin Ave (Kelsey to Clancy) – ¾ median access break allowed at midpoint (1/4-mile) between Kelsey and Clancy. All other driveways restricted to right in/out only
9. Kelsey St and Clancey St are collector status roadways. Minimum distance between driveways is 250-ft and from intersection is 200-ft. Refer to COV Standard C-32. Driveways for site to align with existing driveways on westside of Kelsey. Driveways on Clancey to align with driveways across the street. Any deviation from City standard required to be supported and justified by the traffic study.
10. Driveways that do not meet the required distance from intersection and spacing may need to be eliminated. Reference made to City of Visalia Standard C-32 Drive Approach Locations.
11. Study shall evaluate roadway access points and determine whether right turn decel lanes are required.
12. TIA to analyze onsite circulation and offsite circulation.
13. Traffic Growth – It is noted that scoping letter proposes to use an annual growth rate 2% growth rate.

14. Data Collection – Scoping letter proposes to supplement traffic data collection with counts collected Summer 2022. Please provide methodology to grow numbers from counts collected in Summer to counts collected when schools are in session.
15. Please note anything inadvertently omitted from the scoping letter, but a required element of the TIA, shall be performed in accordance with the City of Visalia Procedures for Traffic Impact Analysis (TIA).

Please feel free to contact me should you have questions.

Sincerely,

Leslie Blair, P.E.
Senior Civil Engineer
Public Works
(559)713-4633
Leslie.Blair@visalia.city

Attachments: Traffic Safety SPR Comments

SITE PLAN REVIEW COMMENTS

CITY OF VISALIA TRAFFIC SAFETY DIVISION

May 5, 2022

ITEM NO: 1 **Resubmit**
SITE PLAN NO: SPR21074
PROJECT TITLE: Shirk & Riggin Industrial Park
DESCRIPTION: Proposed Industrial Development on 280 Acres (X)
APPLICANT: Molly McDonnel
OWNER: RITCHIE LARRY J & MARY E (TRS)(L&MR TR
DOEVILLE RANCH INC
APN: 077840002
077840003
000013862

THE TRAFFIC DIVISION WILL PROHIBIT ON-STREET PARKING AS DEEMED NECESSARY

☐ No Comments

☒ See Previous Site Plan Comments

☒ Install Street Light(s) per City Standards.

☒ Install Street Name Blades at ***intersection*** Locations.

☒ Install Stop Signs at ***intersection*** of local road with arterial/collector and/or collector with arterial Locations.

☒ Construct parking per City Standards PK-1 through PK-4.

☒ Construct drive approach per City Standards.

☒ Traffic Impact Analysis required (CUP)

- ☒ Provide more traffic information such as number of trips project is expected to generate in peak hour. Depending on development size, characteristics, etc., a TIA may be required.

☐ Additional traffic information required (Non Discretionary)

- ☐ Trip Generation - Provide documentation as to concurrence with General Plan.
- ☐ Site Specific - Evaluate access points and provide documentation of conformance with COV standards. If noncomplying, provide explanation.
- ☐ Traffic Impact Fee (TIF) Program - Identify improvments needed in concurrence with TIF.

Additional Comments:

- VMT analysis may be required unless screened out.
- Driveways on Kelsey, Riggin, Clancey, Shirk and local roads- Location, number and spacing of driveways required to comply with COV Standards C-32. Applicant to check conformity and make

Leslie Blair

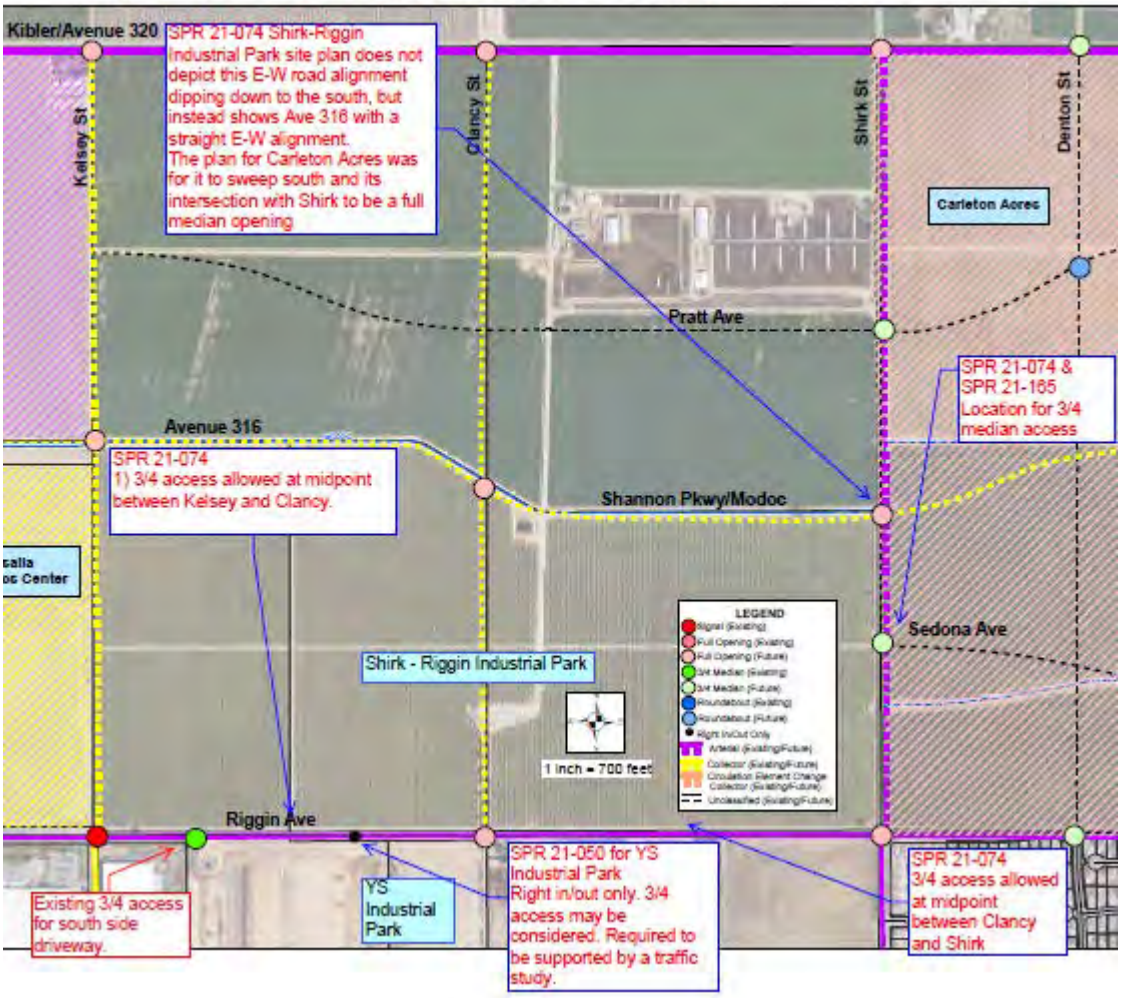
21-074RRR

revisions accordingly. Please note any deviation from City standard requires justification and supporting documentation and study.

- Shirk St and Riggin Ave are arterial status roadways. Minimum distance between driveways is 500-ft and from intersection is 200-ft. Refer to COV Standard C-32.
- Kelsey St and Clancey St are collector status roadways. Minimum distance between driveways is 250-ft and from intersection is 200-ft.Refer to COV Standard C-32.
- Driveways for site to align with driveways on westside of Kelsey, southside of Riggin, and eastside of Shirk. Show existing and proposed development driveways adjacent to site. It is noted that the driveways on the westsideof Kelsey St are not shown on site plan. These need to be shown to show align with proposed driveways on eastside.
- Median access break locations on arterial status roadways,Riggin and Shirk, shall comply with COV Standard P-12. Access break locations to take into consideration existing/proposed development on the southside of Riggin Ave and existing/proposed development on the eastside of Shirk St. Any deviation from City standard P-12 requires supporting documentation and study.
- Riggin Ave (Clancy to Shirk) – ¾ median access break allowed at mid point between Clancy and Shirk. Driveway to align with this location. All other driveways will be restricted to right in/out only.
- Riggin Ave (Kelsey to Clancy) – ¾ median access break allowed at mid point (1/4-mile) between Kelsey and Clancy. All other driveways restricted to right in/out only.
- Shirk St (Riggin to Ave 316/Shannon Pkwy/Modoc alignment) – ¾ median access break permitted at the Sedona Ave alignment. Full opening as shown will not be permitted. Driveway to align with Sedona Ave as shown on Carleton Acres plan located on eastside of Shirk St. See NW Quadrant Traffic Circulation exhibit below. Any deviation will be required to be supported and justified by a traffic study.
- Shirk St - Full median opening permitted at the Shannon Pkwy/Modoc alignment. Alignment required to concur with Carleton Acres development located on eastside of Shirk St.
- All other driveways on Shirk St will be right in/out only.
- Northerly perimeter of site is along the Avenue 316/Riverway/Shannon Pkwy roadway alignment.. How does this site tie in with this roadway alignment? See NW Quadrant Traffic Circulation exhibit below.
- Will the development of this site and trips generated warrant signalization of the intersection of Clancey and Riggin, Shirk and Riggin, Shannon Pkwy/Modoc and Shirk, Ave 316 and Kelsey? Other intersections? Study needed.
- Will the roadway access points require right turn decel lanes? Study needed to determine.
- Ensure northerly perimeter roadway aligns with the alignment of the proposed Shannon Pkwy alignment for the Carleton Acres development on the eastside of Shirk St. Full median opening on Shirk St at this location for future signalization. When is signalization needed? Analysis required.
- TIA to analyze onsite circulation and offsite circulation.
- For questions or clarification on traffic requirements, contact Traffic Engineering 559-713-4633.

Leslie Blair

City of Visalia NW Quadrant Traffic Circulation



Leslie Blair

Leslie Blair

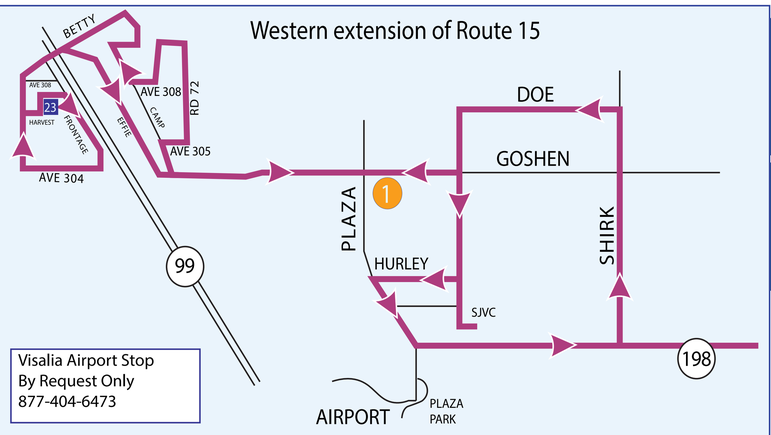
21-074RRR

B – Transit Services

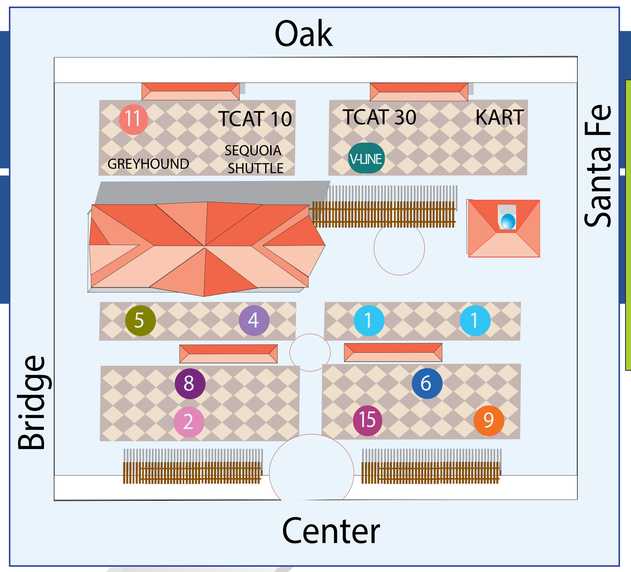
SYSTEM MAP
MAPA DE SISTEMA

4/8/2021

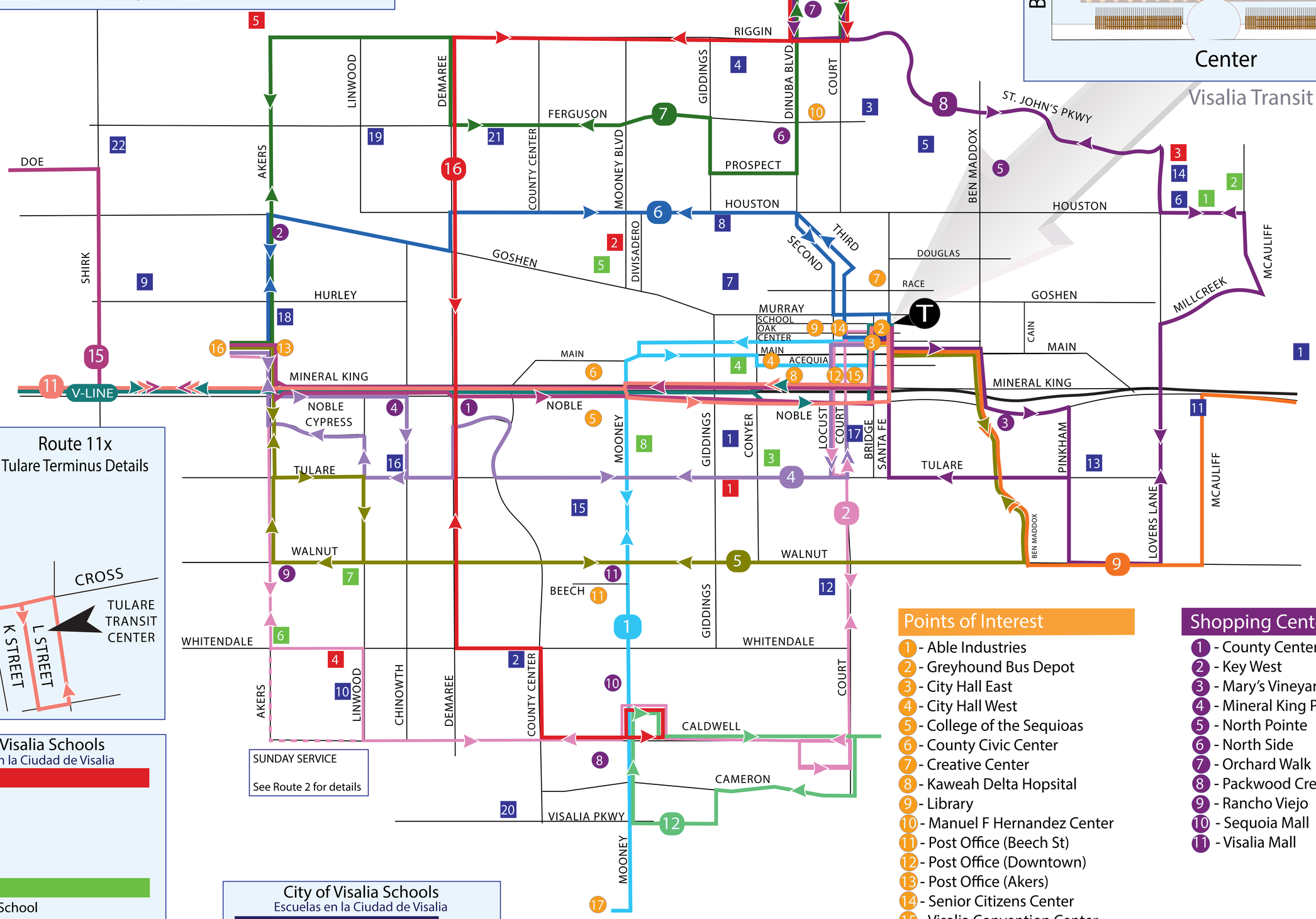
Western extension of Route 15



Visalia Airport Stop
By Request Only
877-404-6473



Visalia Transit Center Detail



SUNDAY SERVICE

See Route 2 for details

Route 11x
Tulare Terminus Details

Points of Interest

1 - Able Industries
2 - Greyhound Bus Depot
3 - City Hall East
4 - City Hall West
5 - College of the Sequoias
6 - County Civic Center
7 - Creative Center
8 - Kaweah Delta Hopsital
9 - Library
10 - Manuel F Hernandez Center
11 - Post Office (Beech St)
12 - Post Office (Downtown)
13 - Post Office (Akers)
14 - Senior Citizens Center
15 - Visalia Convention Center
16 - Visalia Medical Center
17 - Government Plaza

Shopping Centers

1 - County Center
2 - Key West
3 - Mary's Vineyard
4 - Mineral King Plaza
5 - North Pointe
6 - North Side
7 - Orchard Walk
8 - Packwood Creek
9 - Rancho Viejo
10 - Sequoia Mall
11 - Visalia Mall

City of Visalia Schools
Escuelas en la Ciudad de Visalia

Middle Schools
1 - Divisadero
2 - Green Acres
3 - Valley Oak
4 - La Joya
5 - Ridgeview

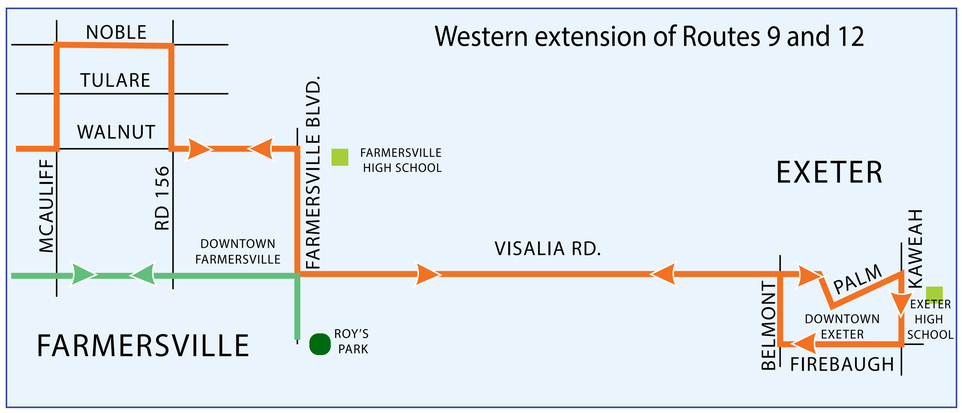
High Schools
1 - Visalia Adult School
2 - Golden West
3 - Mt. Whitney
4 - Redwood
5 - Sequoia
6 - El Diamante
7 - VTEC
8 - Visalia Charter

City of Visalia Schools
Escuelas en la Ciudad de Visalia

Elementary Schools
1 - Conyer
2 - Crestwood
3 - Crowley
4 - Fairview
5 - Four Creeks
6 - Golden Oak
7 - Highland
8 - Houston
9 - Hurley
10 - Linwood
11- Mineral King
12 - Mountain View
13 - Pinkham
14 - Riverbend
15 - Royal Oaks
16 - Veva Blunt
17 - Washington
18 - Willow Glen
19 - Oak Grove
20 - Cottonwood Creek
21 - Manuel F Hernandez
22 - Denton
23 - Goshen (Goshen, CA)

Not on Map
Annie R Mitchell
Elbow Creek
Ivanhoe
Riverway
Shannon Ranch

Western extension of Routes 9 and 12

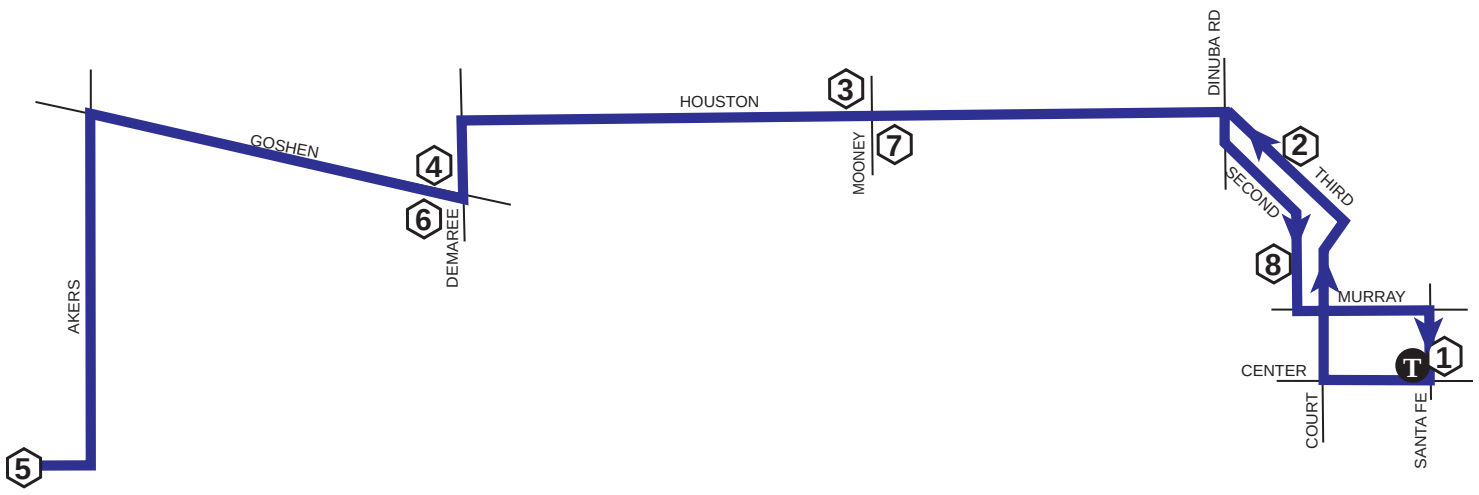


VISALIA TRANSIT

For Information, Call 877-404-6473 or online at visaliatransit.com

6

9/24/20



6A - DOWNTOWN / HOUSTON / VMC

T TRANSIT CENTER 1	STRAWBERRY NW 3RD 2	HOUSTON MOONEY 3	DEMAREE GOSHEN 4	S VISALIA MEDICAL CLINIC 5
6:00	6:04	6:12	6:18	6:25
7:00	7:04	7:12	7:18	7:25
8:00	8:04	8:12	8:18	8:25
9:00	9:04	9:12	9:18	9:25
10:00	10:04	10:12	10:18	10:25
11:00	11:04	11:12	11:18	11:25
12:00	**12:04**	**12:12**	**12:18**	**12:25**
1:00	**1:04**	**1:12**	**1:18**	**1:25**
2:00	**2:04**	**2:12**	**2:18**	**2:25**
3:00	**3:04**	**3:12**	**3:18**	**3:25**
4:00	**4:04**	**4:12**	**4:18**	**4:25**
5:00	**5:04**	**5:12**	**5:18**	**5:25**
6:00	**6:04**	**6:12**	**6:18**	**6:25**
7:00	**7:04**	**7:12**	**7:18**	**7:25**
8:00	**8:04**	**8:12**	**8:18**	**8:25**
9:00	**9:04**	**9:12**	**9:18**	**9:18**

6B - VMC / HOUSTON / DOWNTOWN

S VISALIA MEDICAL CLINIC 5	DEMAREE GOSHEN 6	HOUSTON MOONEY 7	NW 1ST LOCUST 8	T TRANSIT CENTER 1
6:30	6:36	6:40	6:48	6:55
7:30	7:36	7:40	7:48	7:55
8:30	8:36	8:40	8:48	8:55
9:30	9:36	9:40	9:48	9:55
10:30	10:36	10:40	10:48	10:55
11:30	11:36	11:40	11:48	11:55
12:30	**12:36**	**12:40**	**12:18**	**12:55**
1:30	**1:36**	**1:40**	**1:48**	**1:55**
2:30	**2:36**	**2:40**	**2:48**	**2:55**
3:30	**3:36**	**3:40**	**3:48**	**3:55**
4:30	**4:36**	**4:40**	**4:48**	**4:55**
5:30	**5:36**	**5:40**	**5:48**	**5:55**
6:30	**6:36**	**6:40**	**6:48**	**6:55**
7:30	**7:36**	**7:40**	**7:48**	**7:55**
8:30	**8:36**	**8:40**	**8:48**	**8:55**
9:30	**9:36**	**9:40**	**9:48**	**9:55**

SATURDAY & SUNDAY Schedule

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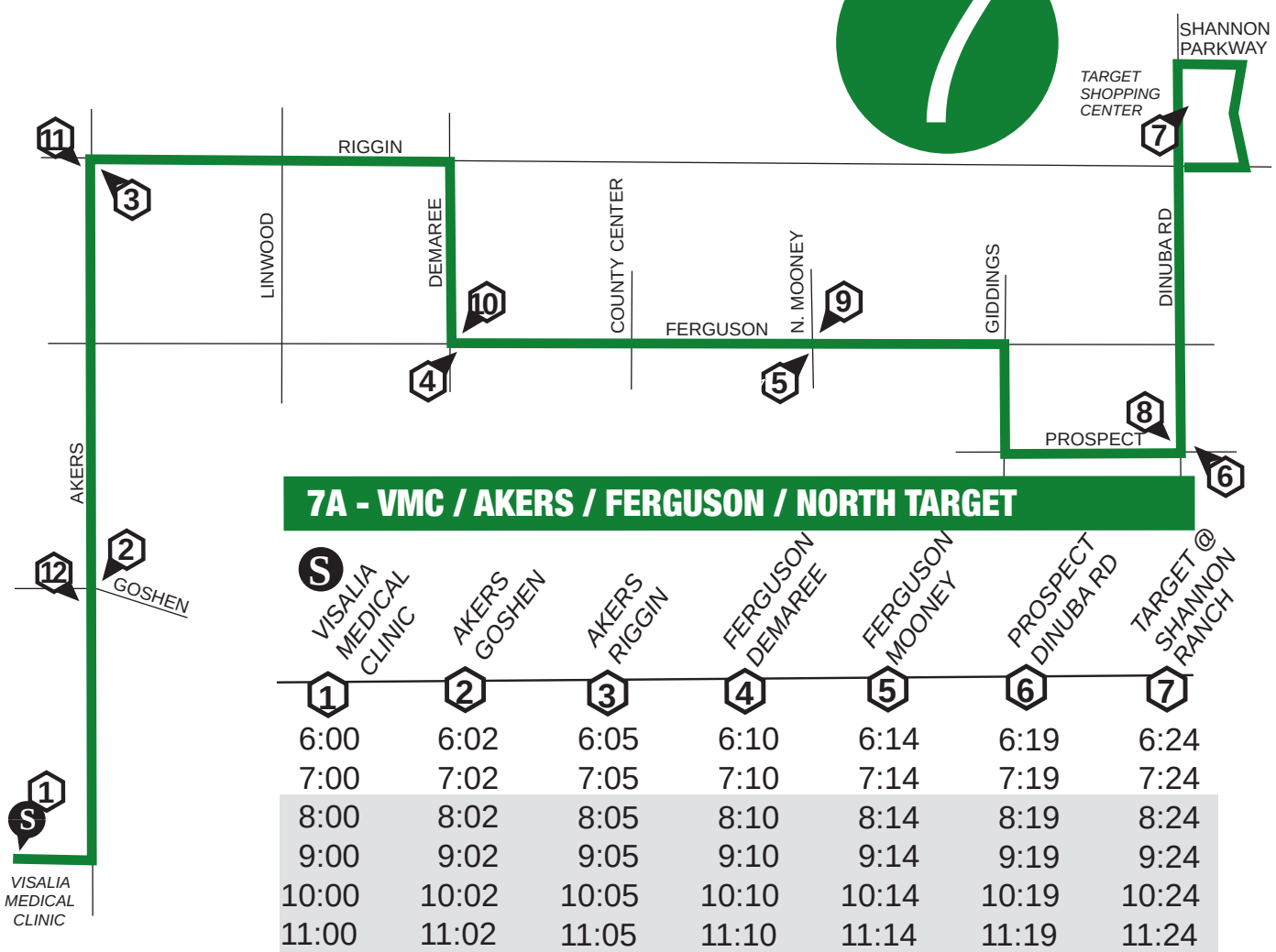
VISALIA TRANSIT

7

9/24/20



7A - VMC / AKERS / FERGUSON / NORTH TARGET

S VISALIA MEDICAL CLINIC	AKERS GOSHEN	AKERS RIGGIN	FERGUSON DEMAREE	FERGUSON MOONEY	PROSPECT DINUBA RD	TARGET @ SHANNON RANCH
1	2	3	4	5	6	7
6:00	6:02	6:05	6:10	6:14	6:19	6:24
7:00	7:02	7:05	7:10	7:14	7:19	7:24
8:00	8:02	8:05	8:10	8:14	8:19	8:24
9:00	9:02	9:05	9:10	9:14	9:19	9:24
10:00	10:02	10:05	10:10	10:14	10:19	10:24
11:00	11:02	11:05	11:10	11:14	11:19	11:24
12:00	**12:02**	**12:05**	**12:10**	**12:14**	**12:19**	**12:24**
1:00	**1:02**	**1:05**	**1:10**	**1:14**	**1:19**	**1:24**
2:00	**2:02**	**2:05**	**2:10**	**2:14**	**2:19**	**2:24**
3:00	**3:02**	**3:05**	**3:10**	**3:14**	**3:19**	**3:24**
4:00	**4:02**	**4:05**	**4:10**	**4:14**	**4:19**	**4:24**
5:00	**5:02**	**5:05**	**5:10**	**5:14**	**5:19**	**5:24**
6:00	**6:02**	**6:05**	**6:10**	**6:14**	**6:19**	**6:24**
7:00	**7:02**	**7:05**	**7:10**	**7:14**	**7:19**	**7:24**
8:00	**8:02**	**8:05**	**8:10**	**8:14**	**8:19**	**8:24**
9:00	**9:02**	**9:05**	**9:10**	**9:14**	**9:19**	**9:24**

7B -DINUBA RD / FERGUSON / AKERS / VMC

TARGET @ SHANNON RANCH	PROSPECT DINUBA RD	FERGUSON MOONEY	FERGUSON DEMAREE	AKERS RIGGIN	AKERS GOSHEN	S VISALIA MEDICAL CLINIC
7	8	9	10	11	12	1
6:24	6:28	6:33	6:37	6:42	6:45	6:50
7:24	7:28	7:30	7:34	7:38	7:42	7:48
8:24	8:28	8:30	8:34	8:38	8:42	8:48
9:24	9:28	9:30	9:34	9:38	9:42	9:48
10:24	10:28	10:33	10:37	10:42	10:45	10:50
11:24	11:28	11:30	11:34	11:38	11:42	11:48
12:24	**12:28**	**12:30**	**12:34**	**12:38**	**12:42**	**12:48**
1:24	**1:28**	**1:30**	**1:34**	**1:38**	**1:42**	**1:48**
2:24	**2:28**	**2:33**	**2:37**	**2:42**	**2:45**	**2:50**
3:24	**3:28**	**3:30**	**3:34**	**3:38**	**3:42**	**3:48**
4:24	**4:28**	**4:30**	**4:34**	**4:38**	**4:42**	**4:48**
5:24	**5:28**	**5:30**	**5:34**	**5:38**	**5:42**	**5:48**
6:24	**6:28**	**6:33**	**6:37**	**6:42**	**6:45**	**6:50**
7:24	**7:28**	**7:30**	**7:34**	**7:38**	**7:42**	**7:48**
8:24	**8:28**	**8:30**	**8:34**	**8:38**	**8:42**	**8:48**
9:24	**9:28**	**9:30**	**9:34**	**9:38**	**9:42**	**9:48**

SATURDAY & SUNDAY Schedule

VISALIA TRANSIT

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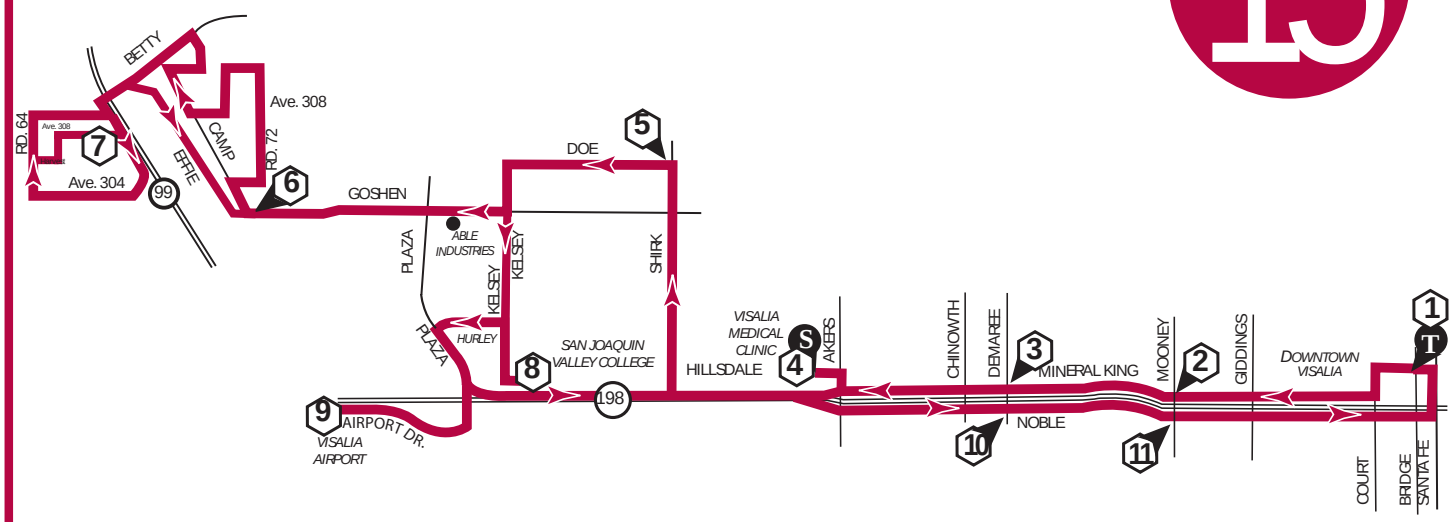
15

10/14/20



15A - DOWNTOWN / VMC / GOSHEN

T TRANSIT CENTER	MINERAL KING MOONEY	MINERAL KING DEMAREE	S VISALIA MEDICAL CLINIC	DOE SHIRK	RD 72 AVE 310	GOSHEN ELEM SCHOOL
1	2	3	4	5	6	7
6:00	6:06	6:09	6:15	6:21	6:28	6:40
6:45	6:51	6:54	7:00	7:06	7:13	7:25
7:30	7:36	7:39	7:45	7:51	7:58	8:10
8:15	8:21	8:24	8:30	8:36	8:43	8:55
9:00	9:06	9:09	9:15	9:21	9:28	9:40
9:45	9:51	9:54	10:00	10:06	10:13	10:25
10:30	10:36	10:39	10:45	10:51	10:58	11:10
11:15	11:21	11:24	11:30	11:36	11:43	11:55
12:00	**12:06**	**12:09**	**12:15**	**12:21**	**12:28**	**12:40**
12:45	**12:51**	**12:54**	**1:00**	**1:06**	**1:13**	**1:25**
1:30	**1:36**	**1:39**	**1:45**	**1:51**	**1:58**	**2:10**
2:15	**2:21**	**2:24**	**2:30**	**2:36**	**2:43**	**2:55**
3:00	**3:06**	**3:09**	**3:15**	**3:21**	**3:28**	**3:40**
3:45	**3:51**	**3:54**	**4:00**	**4:06**	**4:13**	**4:25**
4:30	**4:36**	**4:39**	**4:45**	**4:51**	**4:58**	**5:10**
5:15	**5:21**	**5:24**	**5:30**	**5:36**	**5:43**	**5:55**
6:00	**6:06**	**6:09**	**6:15**	**6:21**	**6:28**	**6:40**
6:45	**6:51**	**6:54**	**7:00**	**7:06**	**7:13**	**7:25**
7:30	**7:36**	**7:39**	**7:45**	**7:51**	**7:58**	**8:10**
8:15	**8:21**	**8:24**	**8:30**	**8:36**	**8:43**	**8:55**
9:00	**9:06**	**9:09**	**9:15**	**9:21**	**9:28**	**9:40**

15B - PLAZA / VMC / NOBLE / DOWNTOWN

GOSHEN ELEM SCHOOL	SJVC	VISALIA AIRPORT	S VISALIA MEDICAL CLINIC	NOBLE DEMAREE	NOBLE MOONEY	T TRANSIT CENTER
7	8	9	4	10	11	1
6:40	6:52	*	7:00	7:05	7:08	7:20
7:25	7:37	*	7:45	7:50	7:53	8:05
8:10	8:22	*	8:30	8:35	8:38	8:50
8:55	9:07	*	9:15	9:20	9:23	9:35
9:40	9:52	*	10:00	10:05	10:08	10:20
10:25	10:37	*	10:45	10:50	10:53	11:05
11:10	11:22	*	11:30	11:35	11:38	11:50
11:55	**12:07**	*	**12:15**	**12:20**	**12:23**	**12:35**
12:40	**12:52**	*	**1:00**	**1:05**	**1:08**	**1:20**
1:25	**1:37**	*	**1:45**	**1:50**	**1:53**	**2:05**
2:10	**2:22**	*	**2:30**	**2:35**	**2:38**	**2:50**
2:55	**3:07**	*	**3:15**	**3:20**	**3:23**	**3:35**
3:40	**3:52**	*	**4:00**	**4:05**	**4:08**	**4:20**
4:25	**4:37**	*	**4:45**	**4:50**	**4:53**	**5:05**
5:10	**5:22**	*	**5:30**	**5:35**	**5:38**	**5:50**
5:55	**6:07**	*	**6:15**	**6:20**	**6:23**	**6:35**
6:40	**6:52**	*	**7:00**	**7:05**	**7:08**	**7:20**
7:25	**7:37**	*	**7:45**	**7:50**	**7:53**	**8:05**
8:10	**8:22**	*	**8:30**	**8:35**	**8:38**	**8:50**
8:55	**9:07**	*	**9:15**	**9:20**	**9:23**	**9:35**
9:40	**9:52**	*	**10:00**	**10:05**	**10:08**	**10:20**

SATURDAY & SUNDAY Schedule

* Upon Request

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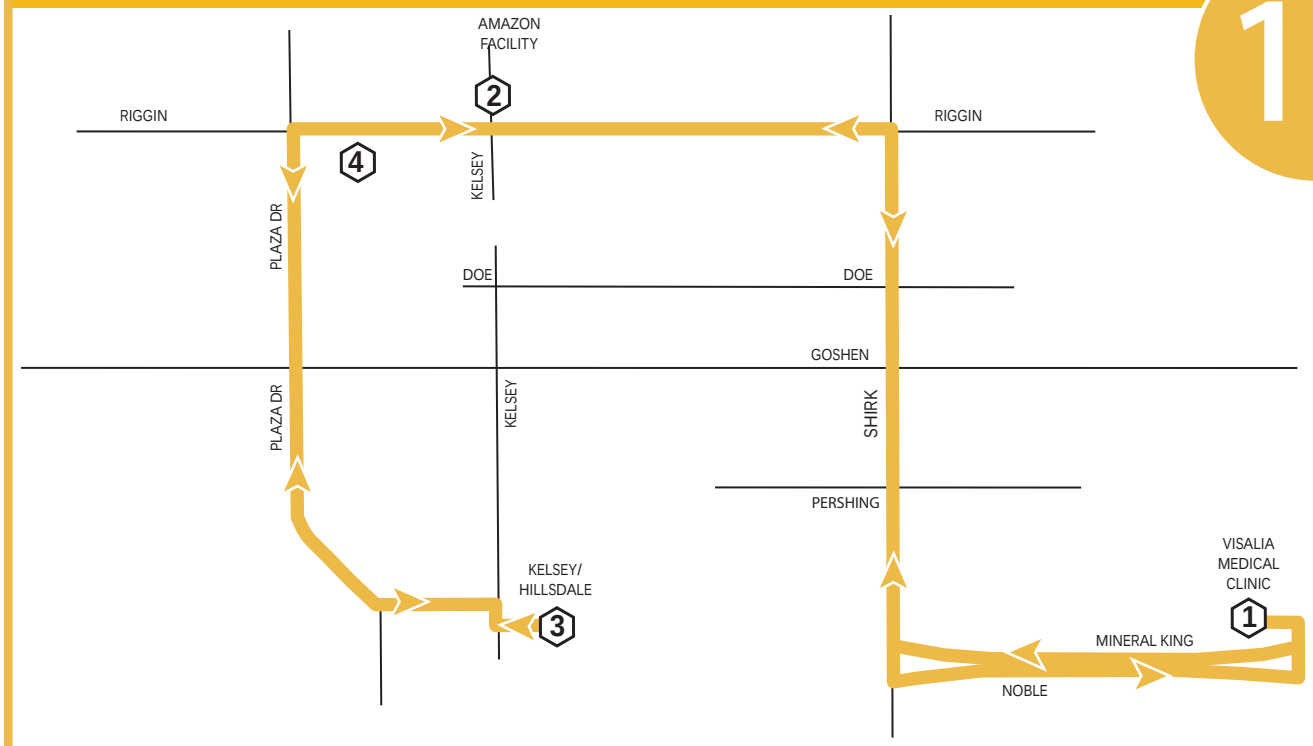
VISALIA TRANSIT

17

10/10/21



17A - VMC/AMAZON/PLAZA/SJVC

S VISALIA MEDICAL CLINIC 1	AMAZON FACILITY 2	S KELSEY/HILLSDALE 3
6:00	**6:13**	**6:30**
6:30	6:43	**7:00**
7:00	7:13	**7:30**
7:30	7:43	**8:00**
8:00	8:13	**8:30**
8:30	**8:43**	**9:00**
9:00	**9:13**	**9:30**
9:30	**9:43**	**10:00**
10:00	**10:13**	**10:30**
10:30	**10:43**	**11:00**
11:00	**11:13**	**11:30**
11:30	**11:43**	**12:00**
12:00	**12:13**	**12:30**
12:30	**12:43**	**1:00**
1:00	**1:13**	**1:30**
1:30	**1:43**	**2:00**
2:00	**2:13**	**2:30**
2:30	**2:43**	**3:00**
3:00	**3:13**	**3:30**
3:30	**3:43**	**4:00**
4:00	**4:13**	**4:30**
4:30	**4:43**	**5:00**
5:00	**5:13**	**5:30**
5:30	**5:43**	**6:00**
6:00	**6:13**	**6:30**
6:30	**6:43**	**7:00**
7:00	**7:13**	**7:30**
7:30	**7:43**	**8:00**
8:00	**8:18**	**8:30**
8:30	**8:43**	**9:00**
9:00	**9:13**	**9:30**
9:30	**9:43**	**10:00**

17B - PLAZA DRIVE/AMAZON/VMC

S KELSEY/HILLSDALE 3	EB RIGGIN/PLAZA 4	S VISALIA MEDICAL CLINIC 1
6:30	6:46	**7:00**
7:00	7:16	**7:30**
7:30	7:46	**8:00**
8:00	8:16	**8:30**
8:30	**8:46**	**9:00**
9:00	**9:16**	**9:30**
9:30	**9:46**	**10:00**
10:00	**10:16**	**10:30**
10:30	**10:46**	**11:00**
11:00	**11:16**	**11:30**
11:30	**11:46**	**12:00**
12:00	**12:16**	**12:30**
12:30	**12:46**	**1:00**
1:00	**1:16**	**1:30**
1:30	**1:46**	**2:00**
2:00	**2:16**	**2:30**
2:30	**2:46**	**3:00**
3:00	**3:16**	**3:30**
3:30	**3:46**	**4:00**
4:00	**4:16**	**4:30**
4:30	**4:46**	**5:00**
5:00	**5:16**	**5:30**
5:30	**5:46**	**6:00**
6:00	**6:16**	**6:30**
6:30	**6:46**	**7:00**
7:00	**7:16**	**7:30**
7:30	**7:46**	**8:00**
8:00	**8:16**	**8:30**
8:30	**8:46**	**9:00**
9:00	**9:16**	**9:30**
9:30	**9:46**	10:00
10:00	**10:16**	10:30

SATURDAY & SUNDAY Schedule

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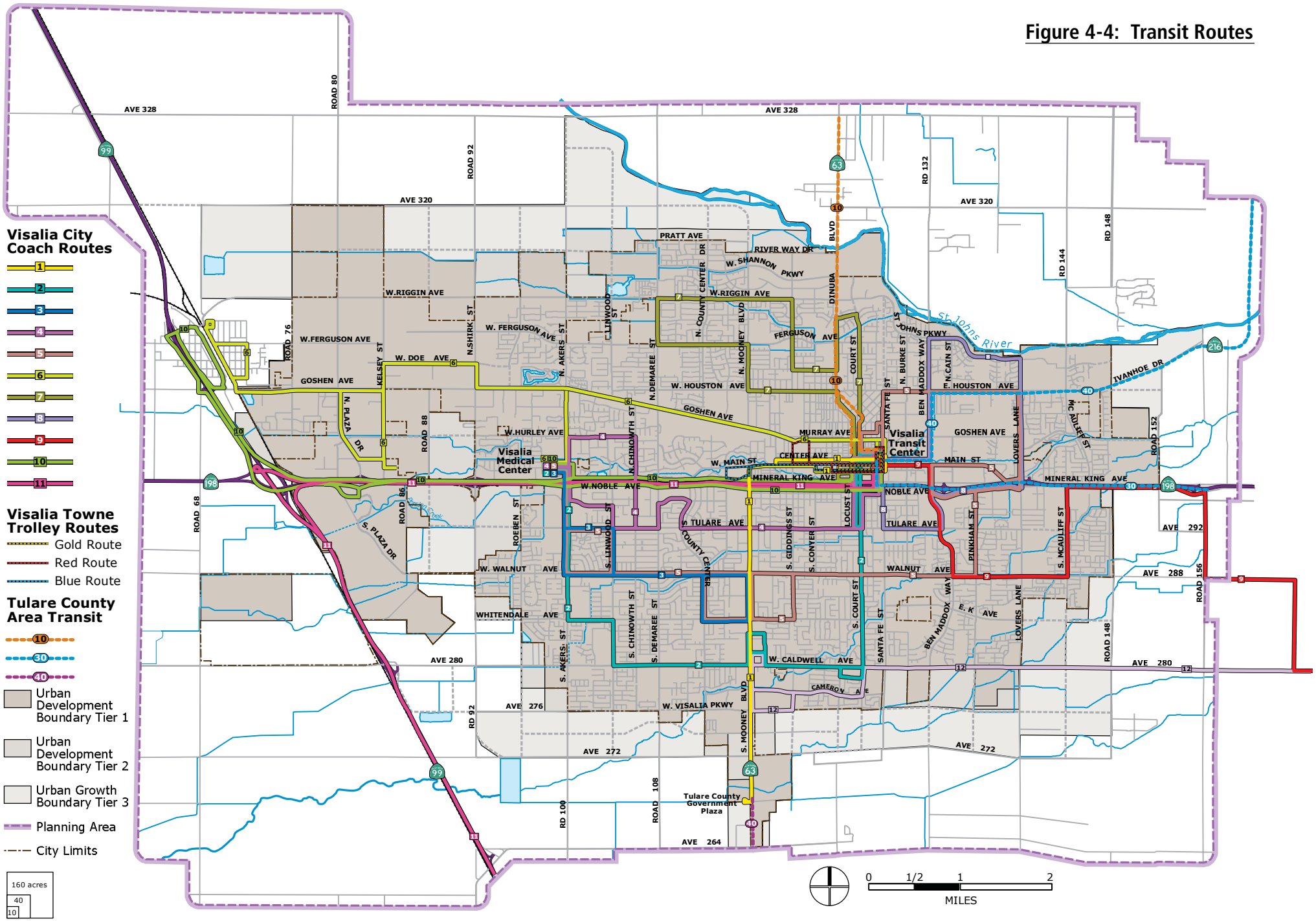
Figure 4-4: Transit Routes



C – Existing Traffic Volume Data Sheets and Calculations

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

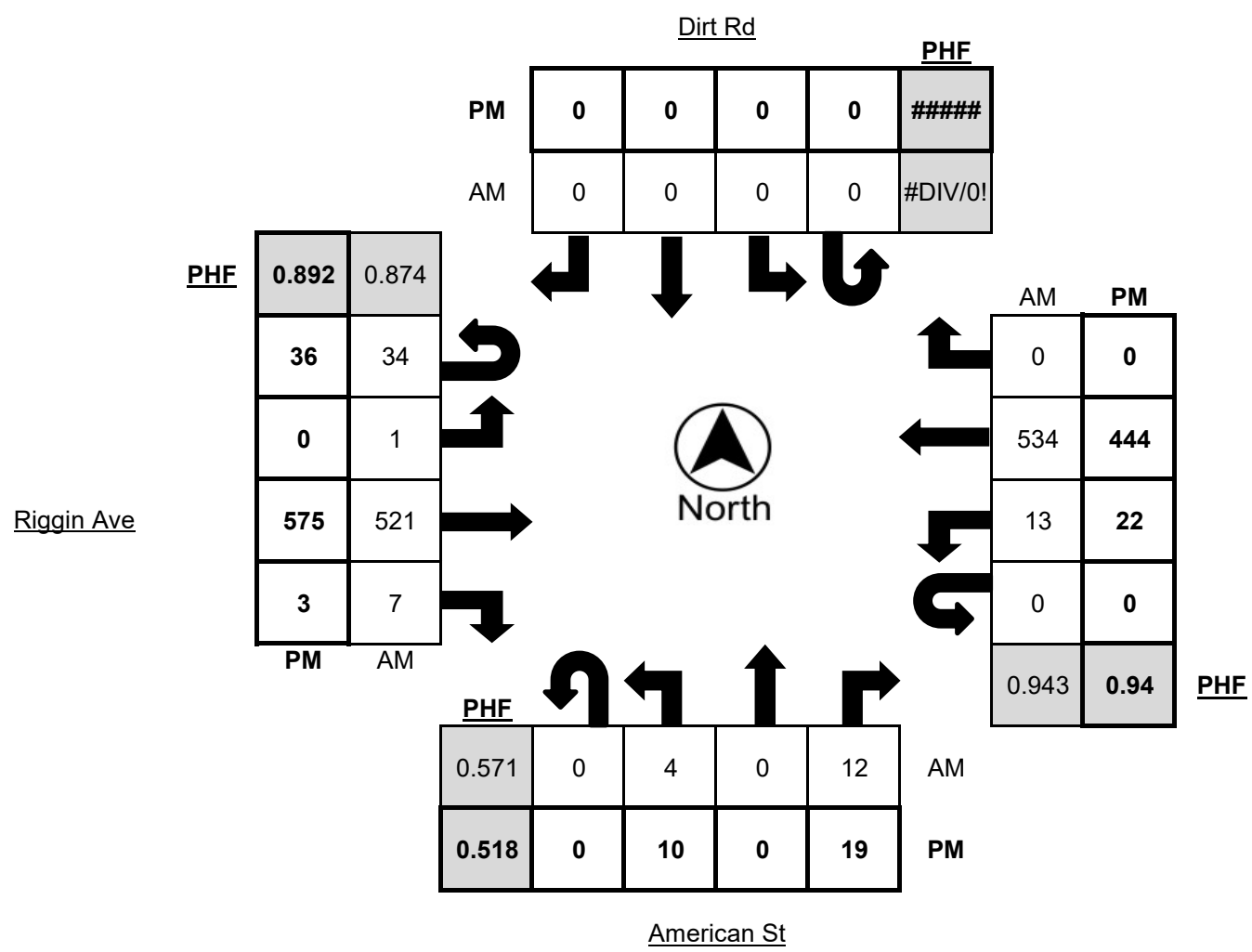
LOCATION American St @ Riggin Ave
LATITUDE 36.3563
COUNTY Tulare
LONGITUDE -119.4037
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	1	0	1	2	0	0	0	0	0	5	0	106	1	6	0	0	104	0	13
7:15 AM - 7:30 AM	0	0	0	3	1	0	0	0	0	0	4	0	125	1	26	0	3	140	0	16
7:30 AM - 7:45 AM	0	3	0	4	4	0	0	0	0	0	14	1	127	2	23	0	2	143	0	18
7:45 AM - 8:00 AM	0	0	0	4	0	0	0	0	0	0	12	0	147	2	18	0	2	134	0	18
8:00 AM - 8:15 AM	0	1	0	1	0	0	0	0	0	0	4	0	122	2	24	0	6	117	0	21
8:15 AM - 8:30 AM	0	2	0	5	1	0	0	0	0	0	6	0	116	5	28	0	9	127	0	15
8:30 AM - 8:45 AM	0	0	0	2	0	0	0	0	0	0	9	0	110	3	19	0	7	118	0	24
8:45 AM - 9:00 AM	0	1	0	1	1	0	0	0	0	0	5	0	91	0	14	0	6	95	0	28
TOTAL	**0**	**8**	**0**	**21**	**9**	**0**	**0**	**0**	**0**	**0**	**59**	**1**	**944**	**16**	**158**	**0**	**35**	**978**	**0**	**153**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	2	0	12	2	0	0	0	0	0	12	0	122	2	14	0	5	127	0	15
4:15 PM - 4:30 PM	0	1	0	5	1	0	0	0	0	0	11	0	145	1	17	0	4	117	0	12
4:30 PM - 4:45 PM	0	4	0	0	3	0	0	0	0	0	6	0	119	1	11	0	9	115	0	23
4:45 PM - 5:00 PM	0	1	0	4	2	0	0	0	0	0	8	0	151	0	13	0	5	101	0	12
5:00 PM - 5:15 PM	0	4	0	10	2	0	0	0	0	0	11	0	160	1	17	0	4	111	0	14
5:15 PM - 5:30 PM	0	0	0	3	1	0	0	0	0	0	11	0	135	0	14	0	7	122	0	18
5:30 PM - 5:45 PM	0	0	0	2	1	0	0	0	0	0	13	1	133	3	17	0	2	87	0	7
5:45 PM - 6:00 PM	0	0	0	1	0	0	0	0	0	0	9	0	115	0	14	0	2	98	0	15
TOTAL	**0**	**12**	**0**	**37**	**12**	**0**	**0**	**0**	**0**	**0**	**81**	**1**	**1080**	**8**	**117**	**0**	**38**	**878**	**0**	**116**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	4	0	12	5	0	0	0	0	0	34	1	521	7	91	0	13	534	0	73
4:15 PM - 5:15 PM	0	10	0	19	8	0	0	0	0	0	36	0	575	3	58	0	22	444	0	61

	PHF	Trucks
AM	0.935	15.0%
PM	0.921	11.5%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

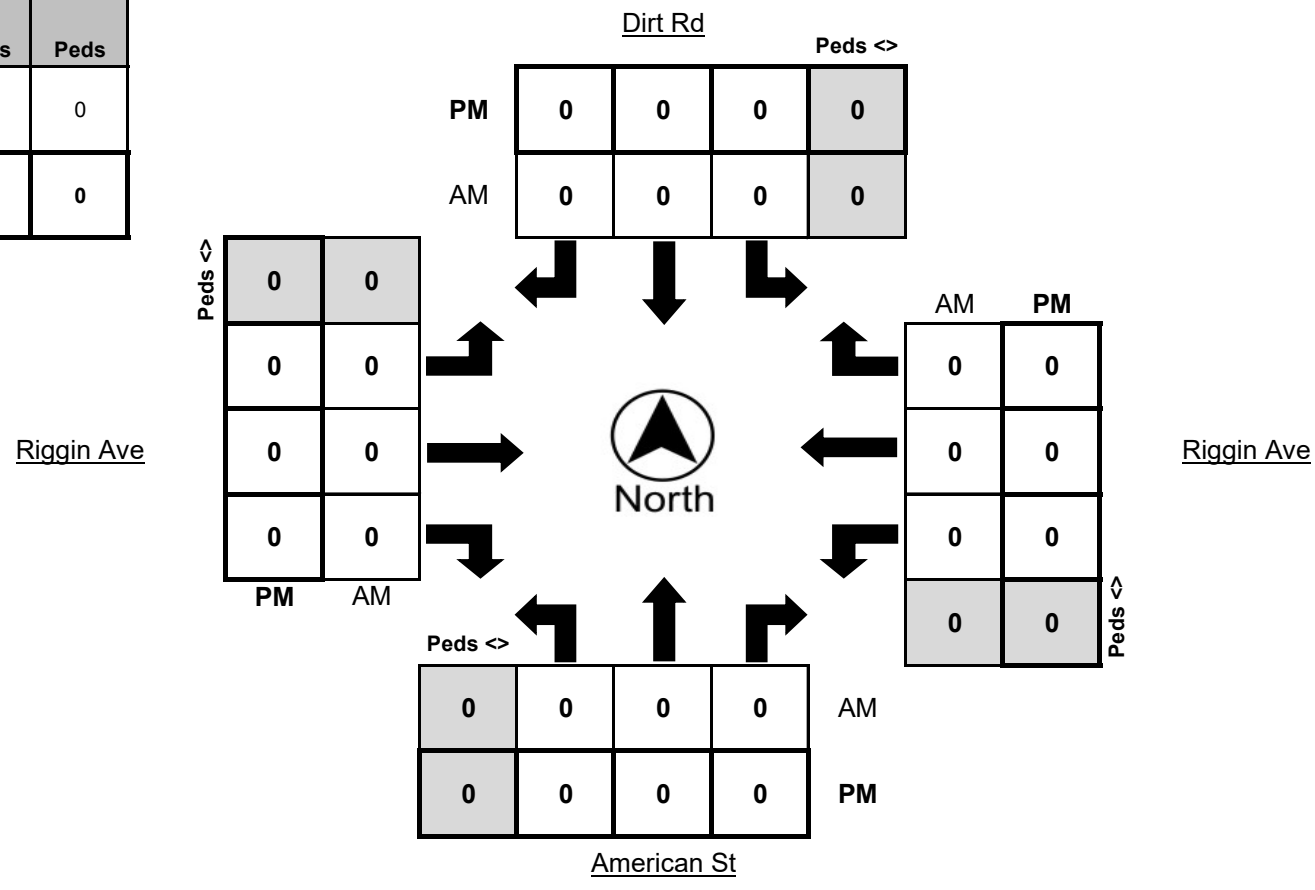
LOCATION American St @ Riggin Ave
LATITUDE 36.3563
COUNTY Tulare
LONGITUDE -119.4037
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Plaza Dr @ Ave 320 **LATITUDE** 36.3708

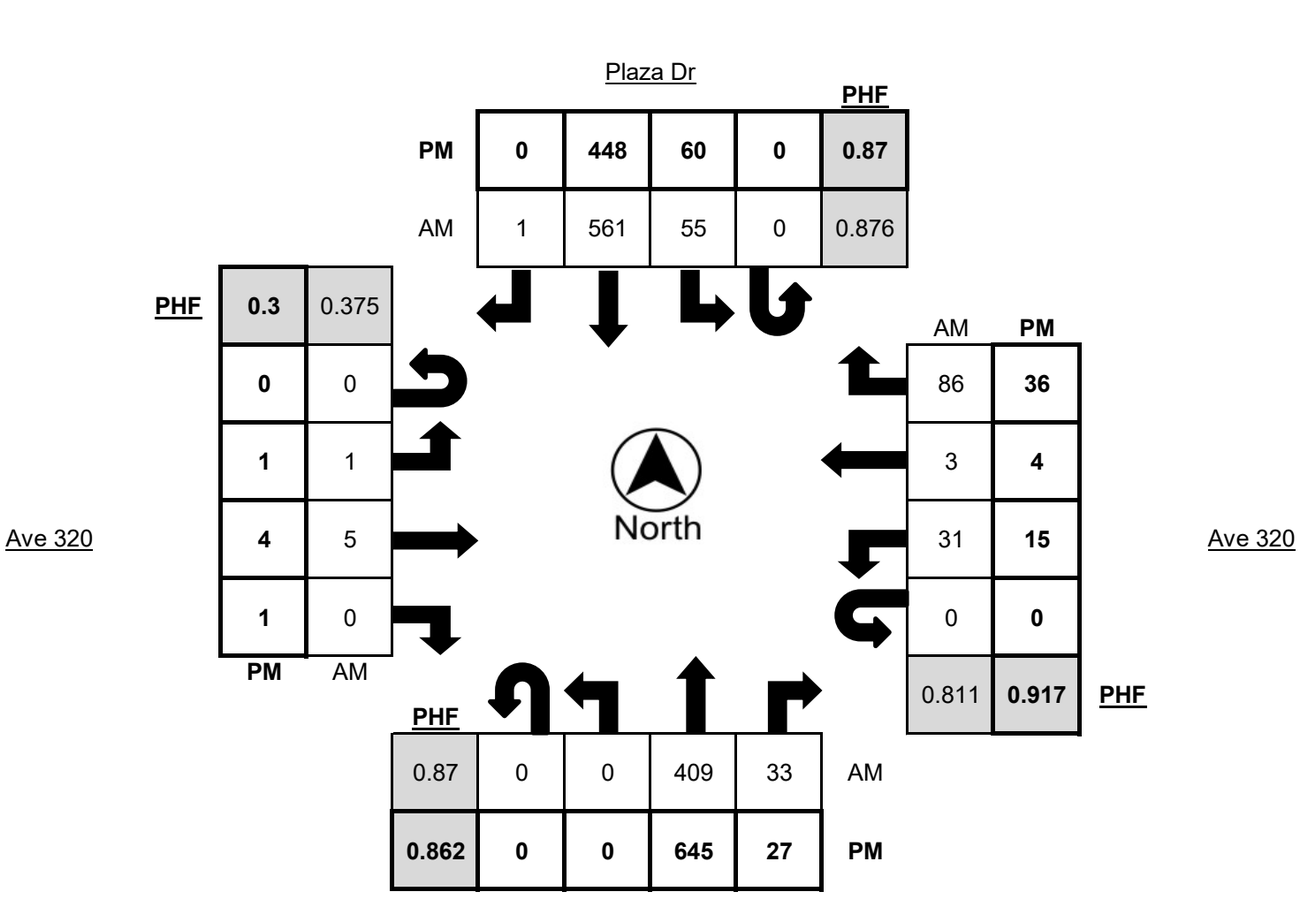
COUNTY Tulare **LONGITUDE** -119.3946

COLLECTION DATE Wednesday, May 25, 2022 **WEATHER** Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	0	46	17	13	0	9	59	0	6	0	1	0	0	0	0	1	0	8	0
6:15 AM - 6:30 AM	0	1	70	38	17	0	4	83	0	8	0	0	1	0	0	0	4	0	12	3
6:30 AM - 6:45 AM	0	0	83	16	8	0	12	105	0	9	0	1	0	0	0	0	4	1	9	0
6:45 AM - 7:00 AM	0	0	80	14	14	0	11	138	1	13	0	0	2	0	0	0	3	1	13	0
7:00 AM - 7:15 AM	0	0	81	11	14	0	9	126	1	13	0	0	0	0	0	0	7	1	20	2
7:15 AM - 7:30 AM	0	0	115	7	21	0	12	136	0	10	0	0	0	0	0	0	3	1	23	0
7:30 AM - 7:45 AM	0	0	119	8	18	0	13	163	0	10	0	1	1	0	0	0	8	1	19	4
7:45 AM - 8:00 AM	0	0	94	7	11	0	21	136	0	8	0	0	4	0	3	0	13	0	24	4
8:00 AM - 8:15 AM	0	1	77	9	11	0	14	110	1	13	0	2	1	0	2	0	5	0	13	1
8:15 AM - 8:30 AM	0	0	81	3	10	0	12	98	0	9	0	0	1	0	0	0	9	2	7	4
8:30 AM - 8:45 AM	0	1	76	8	18	0	5	111	0	15	0	0	1	0	0	0	13	1	7	5
8:45 AM - 9:00 AM	1	1	75	6	20	0	6	98	0	8	0	0	1	0	0	0	5	1	8	3
9:00 AM - 9:15 AM	0	0	49	11	12	0	3	70	0	14	0	0	2	0	0	0	7	0	4	2
9:15 AM - 9:30 AM	0	0	90	7	21	0	7	84	0	12	0	0	0	2	0	0	8	0	6	4
9:30 AM - 9:45 AM	0	0	98	18	29	0	7	88	0	6	0	1	0	0	0	0	9	1	6	8
9:45 AM - 10:00 AM	0	0	80	7	20	0	4	98	1	1	0	0	2	0	0	0	7	1	8	4
10:00 AM - 10:15 AM	0	1	72	5	13	0	1	84	0	9	0	0	2	1	0	0	7	0	3	1
10:15 AM - 10:30 AM	0	1	67	8	21	0	4	91	0	17	0	0	0	0	0	0	8	0	3	4
10:30 AM - 10:45 AM	0	0	60	6	23	0	7	89	0	13	0	1	1	0	1	0	11	0	6	5
10:45 AM - 11:00 AM	0	0	68	8	17	0	3	82	0	16	0	0	2	0	0	0	17	0	2	5
11:00 AM - 11:15 AM	0	0	60	9	10	0	11	118	0	16	0	0	0	1	0	0	22	2	3	0
11:15 AM - 11:30 AM	0	0	77	12	14	0	3	90	0	13	0	0	0	0	0	0	8	1	6	4
11:30 AM - 11:45 AM	0	1	73	11	13	0	8	102	0	15	0	0	0	0	0	0	6	4	5	4
11:45 AM - 12:00 PM	0	1	61	16	12	0	5	97	0	13	0	0	0	0	0	0	9	0	5	4
12:00 PM - 12:15 PM	0	0	68	8	13	0	7	93	1	11	0	0	0	1	0	0	8	3	6	4
12:15 PM - 12:30 PM	1	0	80	9	14	0	7	88	0	12	0	0	2	1	0	0	2	0	4	0
12:30 PM - 12:45 PM	0	0	91	1	10	0	19	92	1	14	0	0	1	0	0	0	11	0	7	1
12:45 PM - 1:00 PM	0	0	87	5	17	0	8	96	0	18	0	0	2	0	0	0	3	1	7	0
1:00 PM - 1:15 PM	0	0	104	6	9	0	16	87	0	13	0	0	0	0	0	0	4	0	7	0
1:15 PM - 1:30 PM	0	0	86	3	8	0	10	82	2	11	0	3	1	0	0	0	5	0	2	1
1:30 PM - 1:45 PM	0	0	128	10	13	0	10	101	2	10	0	0	0	1	0	0	2	1	8	0
1:45 PM - 2:00 PM	0	0	93	2	9	0	16	104	0	13	0	0	2	3	0	0	6	0	3	1
2:00 PM - 2:15 PM	0	0	80	4	8	0	6	106	0	9	0	0	2	0	2	0	5	3	16	3
2:15 PM - 2:30 PM	0	0	82	4	9	0	7	104	1	5	0	0	0	1	0	0	4	0	4	2
2:30 PM - 2:45 PM	0	0	141	4	12	0	12	112	0	10	0	0	0	1	0	0	11	3	13	1
2:45 PM - 3:00 PM	0	0	92	6	7	0	19	120	1	12	0	1	1	2	0	0	4	0	11	1
3:00 PM - 3:15 PM	0	0	132	3	8	0	14	101	0	9	0	0	2	0	0	0	34	0	10	3
3:15 PM - 3:30 PM	0	0	125	7	9	0	21	99	0	13	0	0	0	0	0	0	19	0	9	1
3:30 PM - 3:45 PM	0	0	144	13	11	0	21	111	0	7	0	0	0	1	0	0	11	0	12	2
3:45 PM - 4:00 PM	1	0	124	10	10	0	18	145	0	16	0	0	1	0	0	0	9	1	5	1
4:00 PM - 4:15 PM	1	0	119	8	8	0	15	124	0	9	0	1	0	0	0	0	7	0	5	0
4:15 PM - 4:30 PM	0	0	130	4	9	0	27	124	0	10	0	0	0	0	0	0	4	1	12	0
4:30 PM - 4:45 PM	0	0	153	7	8	0	9	92	0	10	0	0	4	1	0	0	5	0	10	3
4:45 PM - 5:00 PM	0	0	146	7	12	0	15	125	0	11	0	0	0	0	0	0	4	1	10	0
5:00 PM - 5:15 PM	0	0	158	6	5	0	15	106	0	5	0	1	0	0	0	0	4	2	8	1
5:15 PM - 5:30 PM	0	0	188	7	15	0	21	125	0	8	0	0	0	0	0	0	2	1	8	1
5:30 PM - 5:45 PM	0	0	126	5	4	0	12	111	0	6	0	0	3	0	0	0	5	0	6	3
5:45 PM - 6:00 PM	0	0	102	6	11	0	16	99	0	9	0	0	0	0	0	0	4	1	10	1
6:00 PM - 6:15 PM	0	0	102	6	8	0	12	77	0	9	0	1	0	0	0	0	2	1	5	0
6:15 PM - 6:30 PM	0	0	87	7	5	0	12	90	0	8	0	0	0	0	0	0	3	0	7	0
6:30 PM - 6:45 PM	0	0	103	7	7	0	5	86	0	9	0	1	0	0	0	0	1	0	6	0
6:45 PM - 7:00 PM	0	0	83	5	7	0	10	71	0	9	0	0	1	0	0	0	2	1	7	1
7:00 PM - 7:15 PM	0	1	78	4	9	0	6	69	1	5	0	0	0	0	0	0	1	0	1	1
7:15 PM - 7:30 PM	0	0	67	1	6	0	6	58	0	3	0	0	2	0	0	0	1	2	5	0
7:30 PM - 7:45 PM	0	0	64	6	7	0	3	38	0	7	0	0	0	0	0	0	0	1	5	0
7:45 PM - 8:00 PM	0	0	60	2	1	0	3	48	0	9	0	1	0	0	0	0	2	1	1	1
TOTAL	4	9	5275	445	669	0	589	5540	13	577	0	16	45	16	8	0	379	42	450	104

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:00 AM - 8:00 AM	0	0	409	33	64	0	55	561	1	41	0	1	5	0	3	0	31	3	86	10
4:30 PM - 5:30 PM	0	0	645	27	40	0	60	448	0	34	0	1	4	1	0	0	15	4	36	5

	PHF	Trucks
AM	0.890	10.0%
PM	0.881	6.4%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Plaza Dr @ Ave 320 **LATITUDE** 36.3708

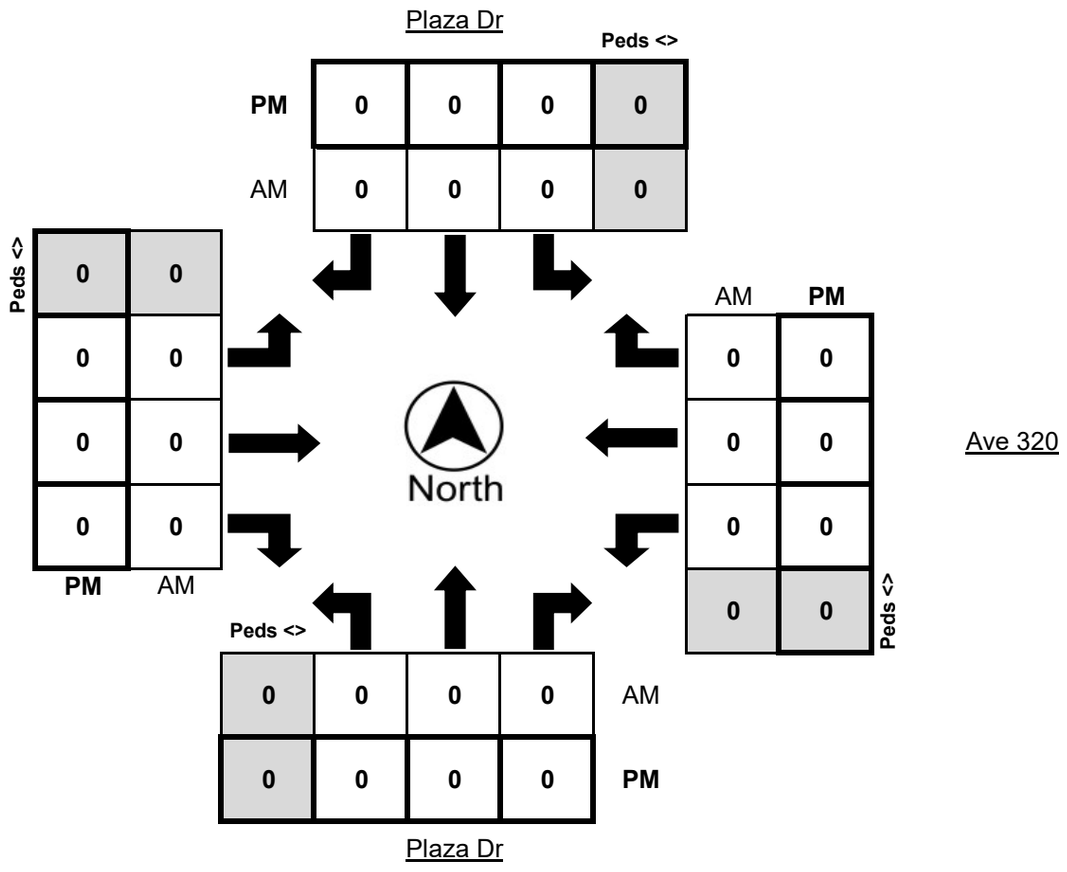
COUNTY Tulare **LONGITUDE** -119.3946

COLLECTION DATE Wednesday, May 25, 2022 **WEATHER** Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	2	0	0	0	0	0	0	0	5	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**1**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
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Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

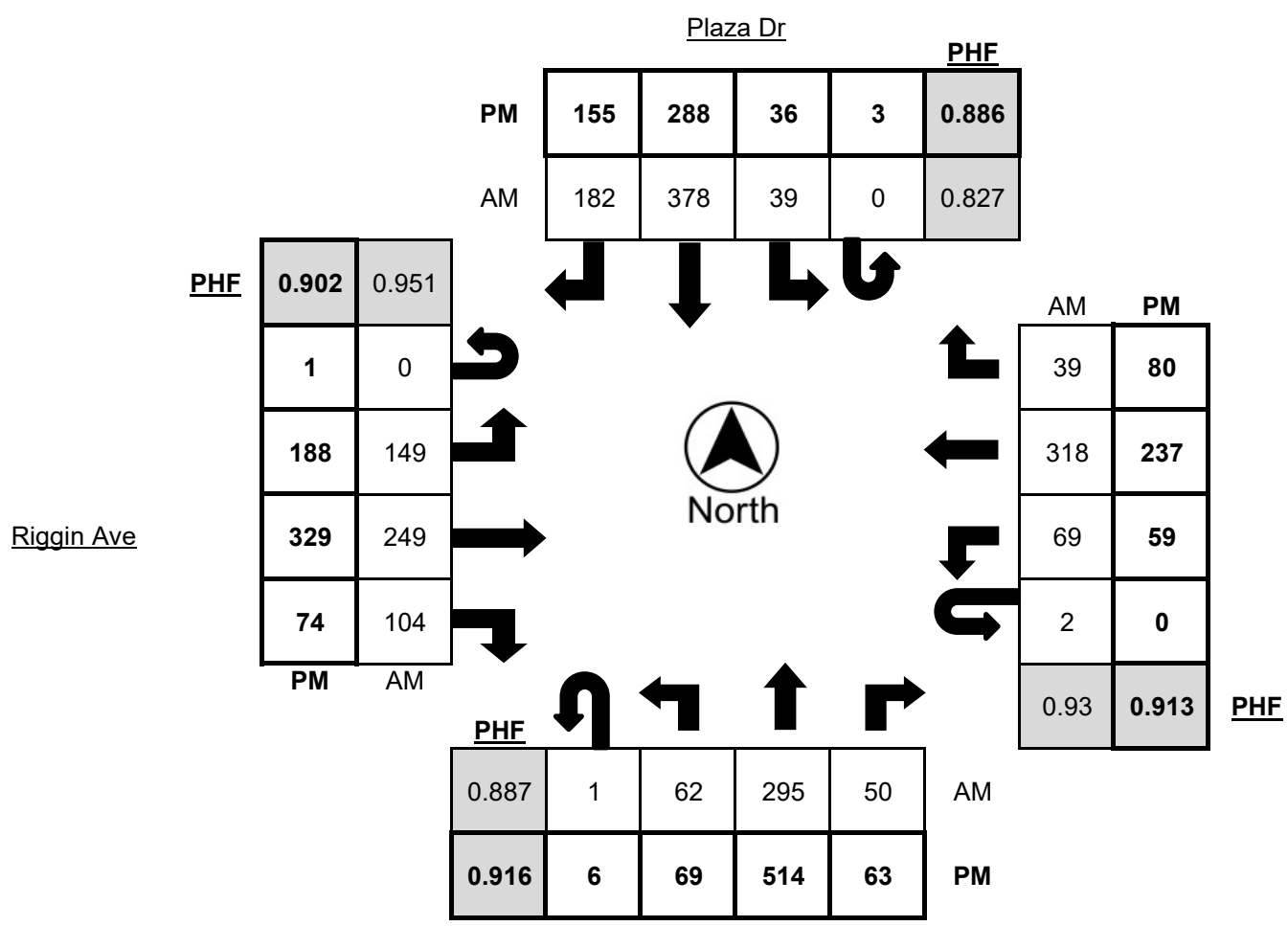
LOCATION Plaza Dr @ Riggin Ave
LATITUDE 36.3564
COUNTY Tulare
LONGITUDE -119.3946
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	10	67	24	13	0	7	99	38	18	0	38	60	16	30	0	6	60	5	6
7:15 AM - 7:30 AM	0	19	65	17	18	0	10	73	47	10	0	45	56	26	29	0	12	82	7	10
7:30 AM - 7:45 AM	0	14	91	10	19	0	9	119	53	11	0	47	54	24	27	0	22	69	8	14
7:45 AM - 8:00 AM	1	12	67	12	11	0	13	107	42	13	0	21	69	28	19	2	12	87	12	9
8:00 AM - 8:15 AM	0	17	72	11	16	0	7	79	40	24	0	36	70	26	27	0	23	80	12	11
8:15 AM - 8:30 AM	0	20	77	13	18	0	8	70	37	16	1	38	45	26	29	0	9	68	19	4
8:30 AM - 8:45 AM	0	20	81	10	24	0	7	81	35	20	0	26	49	31	20	0	11	71	15	15
8:45 AM - 9:00 AM	0	18	69	10	25	0	7	63	37	14	0	38	41	21	14	0	22	47	17	18
TOTAL	**1**	**130**	**589**	**107**	**144**	**0**	**68**	**691**	**329**	**126**	**1**	**289**	**444**	**198**	**195**	**2**	**117**	**564**	**95**	**87**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	2	17	116	12	12	0	10	104	44	10	0	33	65	25	14	1	14	50	11	7
4:15 PM - 4:30 PM	1	17	86	14	13	0	13	75	35	7	0	40	79	23	19	1	18	61	9	8
4:30 PM - 4:45 PM	0	17	143	14	12	1	7	71	40	16	0	56	59	16	16	0	23	57	23	16
4:45 PM - 5:00 PM	1	10	104	18	13	2	11	85	38	12	0	42	90	20	15	0	13	58	32	18
5:00 PM - 5:15 PM	2	21	130	14	8	0	7	65	31	5	0	51	74	20	14	0	12	59	16	17
5:15 PM - 5:30 PM	3	21	137	17	21	0	11	67	46	11	1	39	106	18	20	0	11	63	9	12
5:30 PM - 5:45 PM	0	10	115	20	11	1	11	95	32	10	0	37	71	18	15	0	23	42	11	7
5:45 PM - 6:00 PM	0	20	71	16	18	1	9	60	30	9	0	25	88	9	14	1	10	60	7	12
TOTAL	**9**	**133**	**902**	**125**	**108**	**5**	**79**	**622**	**296**	**80**	**1**	**323**	**632**	**149**	**127**	**3**	**124**	**450**	**118**	**97**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	1	62	295	50	64	0	39	378	182	58	0	149	249	104	102	2	69	318	39	44
4:30 PM - 5:30 PM	6	69	514	63	54	3	36	288	155	44	1	188	329	74	65	0	59	237	80	63

	PHF	Trucks
AM	0.931	13.8%
PM	0.957	10.8%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

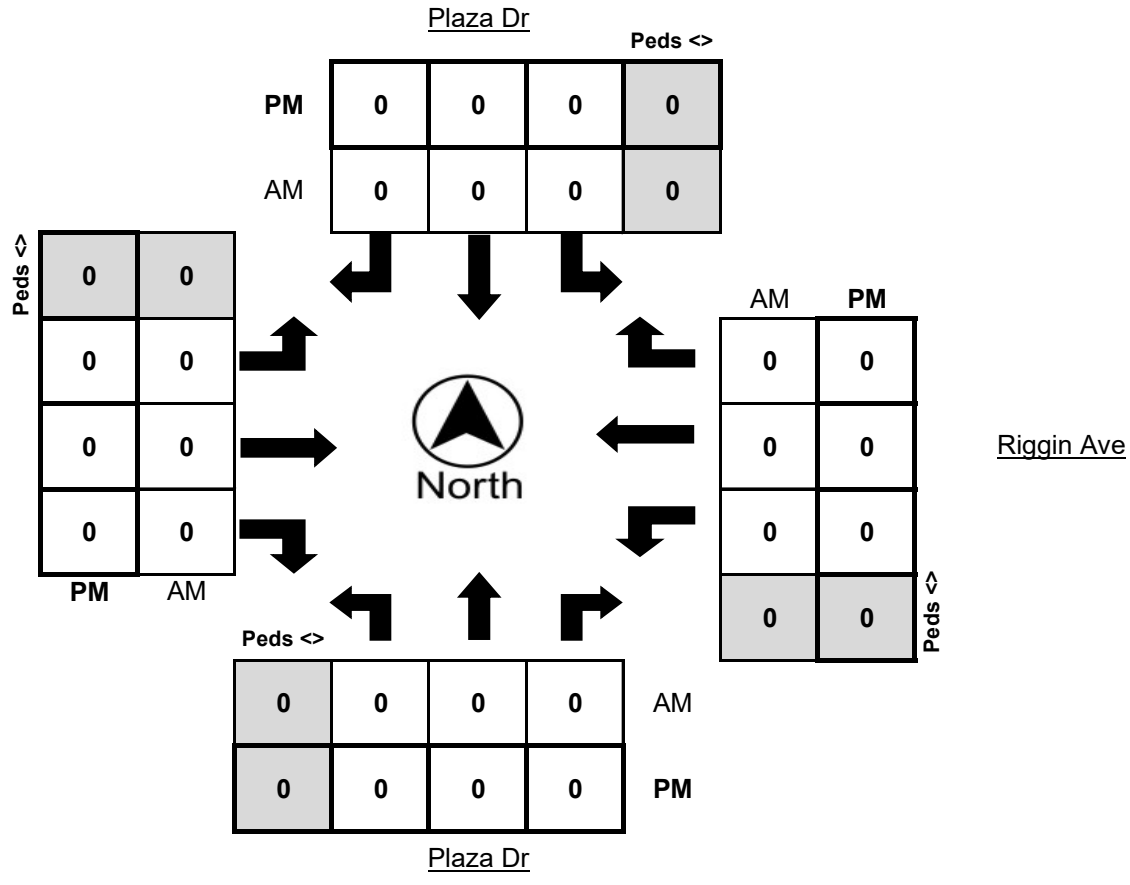
LOCATION Plaza Dr @ Riggin Ave
COUNTY Tulare
COLLECTION DATE Wednesday, May 25, 2022
LATITUDE 36.3564
LONGITUDE -119.3946
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



National Data & Surveying Services Intersection Turning Movement Count

Location: N Plaza Dr & W Ferguson Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-003
Date: 4/21/2022

Data - Total

NS/EW Streets:	N Plaza Dr				N Plaza Dr				W Ferguson Ave				W Ferguson Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	15	110	0	0	1	117	4	2	2	0	2	0	0	1	1	0	255
7:15 AM	9	114	2	0	0	120	7	1	4	0	1	0	1	1	0	0	260
7:30 AM	22	129	3	0	0	166	3	1	4	0	4	0	2	0	0	0	334
7:45 AM	28	107	2	0	0	152	9	0	2	0	11	0	2	0	0	0	313
8:00 AM	10	108	2	1	0	123	6	1	6	0	6	0	2	0	0	0	265
8:15 AM	9	131	0	0	4	120	8	0	2	0	3	0	1	0	0	0	278
8:30 AM	12	100	0	0	0	115	5	1	4	1	8	0	1	0	2	0	249
8:45 AM	7	86	3	0	1	105	3	0	2	0	20	0	2	0	1	0	230
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	112	885	12	1	6	1018	45	6	26	1	55	0	11	2	4	0	2184
APPROACH %'s :	11.09%	87.62%	1.19%	0.10%	0.56%	94.70%	4.19%	0.56%	31.71%	1.22%	67.07%	0.00%	64.71%	11.76%	23.53%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	69	475	7	1	4	561	26	2	14	0	24	0	7	0	0	0	1190
PEAK HR FACTOR :	0.616	0.906	0.583	0.250	0.250	0.845	0.722	0.500	0.583	0.000	0.545	0.000	0.875	0.000	0.000	0.000	0.891
	0.896				0.872				0.731				0.875				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	9	130	9	0	0	136	3	0	9	1	19	0	5	0	2	0	323
4:15 PM	3	147	6	0	0	126	3	0	6	0	9	0	9	0	3	0	312
4:30 PM	5	153	1	1	0	122	2	1	4	0	10	0	10	0	1	0	310
4:45 PM	5	164	1	0	3	115	3	0	8	0	10	0	4	0	3	0	316
5:00 PM	4	146	3	1	1	121	1	1	7	0	22	0	6	0	2	0	315
5:15 PM	2	145	2	0	0	113	4	0	8	0	29	0	0	0	3	0	306
5:30 PM	2	140	1	1	0	134	1	0	7	0	11	0	1	0	0	0	298
5:45 PM	11	118	1	0	2	123	4	0	1	0	7	0	3	0	0	0	270
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	41	1143	24	3	6	990	21	2	50	1	117	0	38	0	14	0	2450
APPROACH %'s :	3.39%	94.38%	1.98%	0.25%	0.59%	97.15%	2.06%	0.20%	29.76%	0.60%	69.64%	0.00%	73.08%	0.00%	26.92%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	22	594	17	1	3	499	11	1	27	1	48	0	28	0	9	0	1261
PEAK HR FACTOR :	0.611	0.905	0.472	0.250	0.250	0.917	0.917	0.250	0.750	0.250	0.632	0.000	0.700	0.000	0.750	0.000	0.976
	0.932				0.924				0.655				0.771				

National Data & Surveying Services Intersection Turning Movement Count

Location: N Plaza Dr & W Ferguson Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-003
Date: 4/21/2022

Data - Cars

NS/EW Streets:	N Plaza Dr				N Plaza Dr				W Ferguson Ave				W Ferguson Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	89	0	0	0	103	2	2	1	0	2	0	0	0	1	0	210
7:15 AM	7	103	2	0	0	107	7	1	2	0	1	0	0	0	0	0	230
7:30 AM	20	111	3	0	0	157	1	1	2	0	3	0	2	0	0	0	300
7:45 AM	25	93	2	0	0	138	8	0	1	0	10	0	2	0	0	0	279
8:00 AM	7	87	2	1	0	104	4	1	6	0	2	0	2	0	0	0	216
8:15 AM	5	110	0	0	3	110	6	0	1	0	2	0	1	0	0	0	238
8:30 AM	10	84	0	0	0	104	2	1	1	0	4	0	1	0	1	0	208
8:45 AM	6	72	2	0	0	90	2	0	1	0	13	0	2	0	0	0	188
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	90	749	11	1	3	913	32	6	15	0	37	0	10	0	2	0	1869
APPROACH %'s :	10.58%	88.01%	1.29%	0.12%	0.31%	95.70%	3.35%	0.63%	28.85%	0.00%	71.15%	0.00%	83.33%	0.00%	16.67%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	57	401	7	1	3	509	19	2	10	0	17	0	7	0	0	0	1033
PEAK HR FACTOR :	0.570	0.903	0.583	0.250	0.250	0.811	0.594	0.500	0.417	0.000	0.425	0.000	0.875	0.000	0.000	0.000	0.861
	0.869				0.838				0.614				0.875				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	112	7	0	0	124	2	0	6	1	18	0	4	0	2	0	283
4:15 PM	1	129	3	0	0	115	1	0	5	0	6	0	9	0	2	0	271
4:30 PM	3	142	1	1	0	108	1	1	2	0	8	0	10	0	1	0	278
4:45 PM	3	150	1	0	1	105	2	0	3	0	10	0	4	0	2	0	281
5:00 PM	3	130	2	1	1	111	0	1	6	0	19	0	5	0	1	0	280
5:15 PM	2	136	1	0	0	102	2	0	7	0	26	0	0	0	3	0	279
5:30 PM	2	126	1	1	0	125	1	0	6	0	9	0	1	0	0	0	272
5:45 PM	7	108	1	0	0	117	4	0	0	0	6	0	2	0	0	0	245
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	28	1033	17	3	2	907	13	2	35	1	102	0	35	0	11	0	2189
APPROACH %'s :	2.59%	95.56%	1.57%	0.28%	0.22%	98.16%	1.41%	0.22%	25.36%	0.72%	73.91%	0.00%	76.09%	0.00%	23.91%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	14	533	12	1	1	452	6	1	16	1	42	0	27	0	7	0	1113
PEAK HR FACTOR :	0.500	0.888	0.429	0.250	0.250	0.911	0.750	0.250	0.667	0.250	0.583	0.000	0.675	0.000	0.875	0.000	0.983
	0.909				0.913				0.590				0.773				

National Data & Surveying Services Intersection Turning Movement Count

Location: N Plaza Dr & W Ferguson Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-003
Date: 4/21/2022

Data - HT

NS/EW Streets:	N Plaza Dr				N Plaza Dr				W Ferguson Ave				W Ferguson Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	21	0	0	1	14	2	0	1	0	0	0	0	1	0	0	45
7:15 AM	2	11	0	0	0	13	0	0	2	0	0	0	1	1	0	0	30
7:30 AM	2	18	0	0	0	9	2	0	2	0	1	0	0	0	0	0	34
7:45 AM	3	14	0	0	0	14	1	0	1	0	1	0	0	0	0	0	34
8:00 AM	3	21	0	0	0	19	2	0	0	0	4	0	0	0	0	0	49
8:15 AM	4	21	0	0	1	10	2	0	1	0	1	0	0	0	0	0	40
8:30 AM	2	16	0	0	0	11	3	0	3	1	4	0	0	0	1	0	41
8:45 AM	1	14	1	0	1	15	1	0	1	0	7	0	0	0	1	0	42
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	22	136	1	0	3	105	13	0	11	1	18	0	1	2	2	0	315
APPROACH %'s :	13.84%	85.53%	0.63%	0.00%	2.48%	86.78%	10.74%	0.00%	36.67%	3.33%	60.00%	0.00%	20.00%	40.00%	40.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	12	74	0	0	1	52	7	0	4	0	7	0	0	0	0	0	157
PEAK HR FACTOR :	0.750	0.881	0.000	0.000	0.250	0.684	0.875	0.000	0.500	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.801
	0.860				0.714				0.688								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	18	2	0	0	12	1	0	3	0	1	0	1	0	0	0	40
4:15 PM	2	18	3	0	0	11	2	0	1	0	3	0	0	0	1	0	41
4:30 PM	2	11	0	0	0	14	1	0	2	0	2	0	0	0	0	0	32
4:45 PM	2	14	0	0	2	10	1	0	5	0	0	0	0	0	1	0	35
5:00 PM	1	16	1	0	0	10	1	0	1	0	3	0	1	0	1	0	35
5:15 PM	0	9	1	0	0	11	2	0	1	0	3	0	0	0	0	0	27
5:30 PM	0	14	0	0	0	9	0	0	1	0	2	0	0	0	0	0	26
5:45 PM	4	10	0	0	2	6	0	0	1	0	1	0	1	0	0	0	25
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	13	110	7	0	4	83	8	0	15	0	15	0	3	0	3	0	261
APPROACH %'s :	10.00%	84.62%	5.38%	0.00%	4.21%	87.37%	8.42%	0.00%	50.00%	0.00%	50.00%	0.00%	50.00%	0.00%	50.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	8	61	5	0	2	47	5	0	11	0	6	0	1	0	2	0	148
PEAK HR FACTOR :	1.000	0.847	0.417	0.000	0.250	0.839	0.625	0.000	0.550	0.000	0.500	0.000	0.250	0.000	0.500	0.000	0.902
	0.804				0.900				0.850				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: N Plaza Dr & W Ferguson Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-003
Date: 4/21/2022

Data - Bikes

NS/EW Streets:	N Plaza Dr				N Plaza Dr				W Ferguson Ave				W Ferguson Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
						0.250											0.250

National Data & Surveying Services Intersection Turning Movement Count

Location: N Plaza Dr & W Ferguson Ave
City: Visalia
Project ID: 22-090052-003
Date: 4/21/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	N Plaza Dr		N Plaza Dr		W Ferguson Ave		W Ferguson Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	2	0	0	0	0	1	3
APPROACH %'s :			100.00%	0.00%			0.00%	100.00%	
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	0	1
PEAK HR FACTOR :			0.250						0.250
			0.250						

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

N Plaza Dr & W Ferguson Ave

Peak Hour Turning Movement Count

ID: 22-090052-003
City: Visalia

Day: Thursday
Date: 4/21/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND (N Plaza Dr)

AM	26	561	4	2	491	AM
NOON	0	0	0	0	0	NOON
PM	11	499	3	1	631	PM
	1	2	1	0		

EASTBOUND (W Ferguson Ave)

AM	NOON	PM	
95	0	33	
0	0	0	0
14	0	27	1
0	0	1	2
24	0	48	1

WESTBOUND (W Ferguson Ave)

	PM	NOON	AM
1	9	0	0
2	0	0	0
1	28	0	7
0	0	0	0
	21	0	11

CONTROL

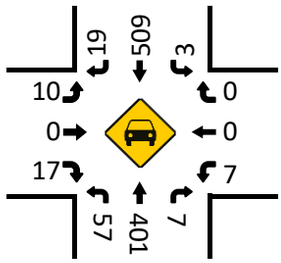
Signalized

	AM	NOON	PM
TEV	1190	0	1261
PHF	0.89		0.98

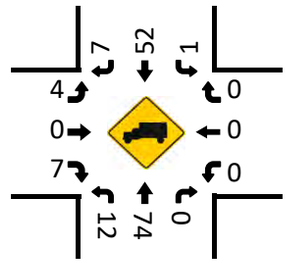
NORTHBOUND (N Plaza Dr)

	0	1	2	1		
PM	576	1	22	594	17	PM
NOON	0	0	0	0	0	NOON
AM	593	1	69	475	7	AM

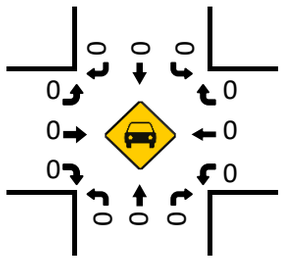
Cars (AM)



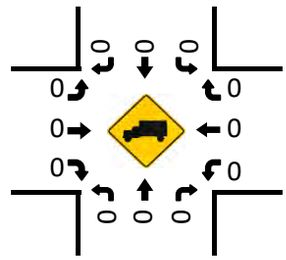
HT (AM)



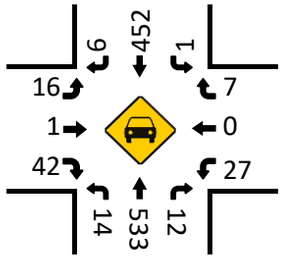
Cars (NOON)



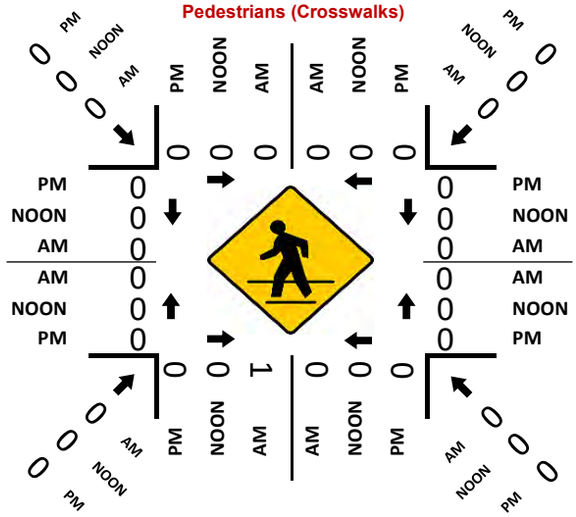
HT (NOON)



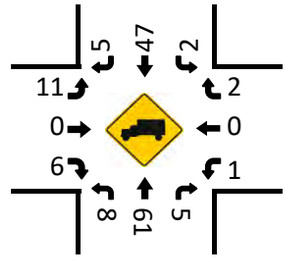
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & California Dairies Dwy
City: Visalia
Control: No Control

Project ID: 22-090052-004
Date: 4/21/2022

Data - Total

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				California Dairies Dwy				California Dairies Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	121	1	0	0	77	0	1	0	0	0	0	0	0	0	0	200
6:15 AM	0	146	0	0	1	82	0	0	0	0	0	0	0	0	1	0	230
6:30 AM	0	131	0	0	0	91	0	0	0	0	0	0	0	0	0	0	222
6:45 AM	0	136	0	0	0	146	0	0	0	0	0	0	0	0	0	0	282
7:00 AM	0	131	1	0	0	123	0	0	0	0	0	0	0	0	0	0	255
7:15 AM	0	137	2	0	1	112	0	0	0	0	0	0	0	0	0	0	252
7:30 AM	0	158	2	0	0	184	0	0	0	0	0	0	0	0	0	0	344
7:45 AM	0	141	9	0	4	163	0	0	0	0	0	0	0	0	1	0	318
8:00 AM	0	127	5	0	1	130	0	0	0	0	0	0	1	0	0	0	264
8:15 AM	0	139	2	0	0	117	0	0	0	0	0	0	0	0	0	0	258
8:30 AM	0	119	1	0	0	115	0	0	0	0	0	0	0	0	0	0	235
8:45 AM	0	101	0	0	1	144	0	0	0	0	0	0	0	0	0	0	246
9:00 AM	0	84	0	0	1	137	0	0	0	0	0	0	1	0	1	0	224
9:15 AM	0	87	1	0	1	123	0	0	0	0	0	0	0	0	0	0	212
9:30 AM	0	109	2	0	0	161	0	0	0	0	0	0	0	0	0	0	272
9:45 AM	0	85	2	0	0	120	0	0	0	0	0	0	1	0	2	0	210
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1952	28	0	10	2025	0	1	0	0	0	0	3	0	5	0	4024
APPROACH %'s :	0.00%	98.59%	1.41%	0.00%	0.49%	99.46%	0.00%	0.05%					37.50%	0.00%	62.50%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	565	18	0	5	594	0	0	0	0	0	0	1	0	1	0	1184
PEAK HR FACTOR :	0.000	0.894	0.500	0.000	0.313	0.807	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.860
		0.911				0.814								0.500			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
10:00 AM	0	110	0	0	0	117	0	0	0	0	0	0	0	0	0	0	227
10:15 AM	0	107	0	0	0	109	0	0	0	0	0	0	0	0	0	0	216
10:30 AM	0	105	0	0	0	110	0	0	0	0	0	0	0	0	0	0	215
10:45 AM	0	101	0	0	0	108	0	0	0	0	0	0	1	0	1	0	211
11:00 AM	0	82	0	0	0	155	0	0	0	0	0	0	1	0	2	0	240
11:15 AM	0	106	2	0	0	148	0	0	0	0	0	0	1	0	0	0	257
11:30 AM	0	125	0	0	1	136	0	0	0	0	0	0	3	0	1	0	266
11:45 AM	0	107	1	0	0	98	0	0	0	0	0	0	6	0	0	0	212
12:00 PM	0	124	0	0	0	111	0	0	0	0	0	0	0	0	1	0	236
12:15 PM	0	113	1	1	0	106	0	0	0	0	0	0	2	0	1	0	224
12:30 PM	0	108	3	0	0	92	0	0	0	0	0	0	0	0	0	0	203
12:45 PM	0	108	3	0	0	88	0	0	0	0	0	0	0	0	0	0	199
1:00 PM	0	98	0	1	2	92	0	0	0	0	0	0	0	0	0	0	193
1:15 PM	0	107	1	0	0	153	0	0	0	0	0	0	2	0	0	0	263
1:30 PM	0	161	2	0	0	194	0	0	0	0	0	0	2	0	1	0	360
1:45 PM	0	161	2	0	2	176	0	0	0	0	0	0	2	0	0	0	343
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1823	15	2	5	1993	0	0	0	0	0	0	20	0	7	0	3865
APPROACH %'s :	0.00%	99.08%	0.82%	0.11%	0.25%	99.75%	0.00%	0.00%					74.07%	0.00%	25.93%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	527	5	1	4	615	0	0	0	0	0	0	6	0	1	0	1159
PEAK HR FACTOR :	0.000	0.818	0.625	0.250	0.500	0.793	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.250	0.000	0.805
		0.817				0.798								0.583			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	123	2	0	2	144	0	0	0	0	0	0	1	0	2	0	274
2:15 PM	0	107	1	0	1	143	0	0	0	0	0	0	0	0	0	0	252
2:30 PM	0	129	0	0	0	161	0	0	0	0	0	0	0	0	0	0	290
2:45 PM	0	121	0	1	0	130	0	0	0	0	0	0	0	0	0	0	252
3:00 PM	0	119	0	0	0	133	0	0	0	0	0	0	0	0	0	0	252
3:15 PM	0	117	0	0	0	165	0	0	0	0	0	0	0	0	1	0	283
3:30 PM	0	122	0	0	0	155	0	0	0	0	0	0	0	0	0	0	277
3:45 PM	0	125	1	0	0	186	0	0	0	0	0	0	1	0	1	0	314
4:00 PM	0	156	2	0	0	157	0	0	0	0	0	0	2	0	1	0	318
4:15 PM	0	161	0	0	0	165	0	0	0	0	0	0	1	0	1	0	328
4:30 PM	0	168	0	0	1	141	0	0	0	0	0	0	2	0	0	0	312
4:45 PM	0	177	0	0	0	128	0	0	0	0	0	0	5	0	0	0	310
5:00 PM	0	160	1	0	0	150	0	0	0	0	0	0	4	0	3	0	318
5:15 PM	0	147	0	0	0	152	0	0	0	0	0	0	1	0	0	0	300
5:30 PM	0	139	0	1	0	142	0	0	0	0	0	0	1	0	0	0	283
5:45 PM	0	120	0	0	0	149	0	0	0	0	0	0	3	0	0	0	272
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2191	7	2	4	2401	0	0	0	0	0	0	21	0	9	0	4635
APPROACH %'s :	0.00%	99.59%	0.32%	0.09%	0.17%	99.83%	0.00%	0.00%					70.00%	0.00%	30.00%	0.00%	
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	610	3	0	1	649	0	0	0	0	0	0	6	0	3	0	1272
PEAK HR FACTOR :	0.000	0.908	0.375	0.000	0.250	0.872	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.970
		0.912				0.874								0.750			

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & California Dairies Dwy
City: Visalia
Control: No Control

Project ID: 22-090052-004
Date: 4/21/2022

Data - Cars

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				California Dairies Dwy				California Dairies Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	106	1	0	0	70	0	1	0	0	0	0	0	0	0	0	178
6:15 AM	0	127	0	0	1	71	0	0	0	0	0	0	0	0	1	0	200
6:30 AM	0	114	0	0	0	80	0	0	0	0	0	0	0	0	0	0	194
6:45 AM	0	119	0	0	0	131	0	0	0	0	0	0	0	0	0	0	250
7:00 AM	0	104	1	0	0	106	0	0	0	0	0	0	0	0	0	0	211
7:15 AM	0	125	2	0	1	97	0	0	0	0	0	0	0	0	0	0	225
7:30 AM	0	141	2	0	0	169	0	0	0	0	0	0	0	0	0	0	312
7:45 AM	0	121	9	0	4	153	0	0	0	0	0	0	0	0	1	0	288
8:00 AM	0	102	5	0	1	109	0	0	0	0	0	0	1	0	0	0	218
8:15 AM	0	119	2	0	0	107	0	0	0	0	0	0	0	0	0	0	228
8:30 AM	0	99	1	0	0	104	0	0	0	0	0	0	0	0	0	0	204
8:45 AM	0	85	0	0	1	121	0	0	0	0	0	0	0	0	0	0	207
9:00 AM	0	64	0	0	1	115	0	0	0	0	0	0	1	0	1	0	182
9:15 AM	0	71	1	0	1	84	0	0	0	0	0	0	0	0	0	0	157
9:30 AM	0	87	2	0	0	115	0	0	0	0	0	0	0	0	0	0	204
9:45 AM	0	72	2	0	0	104	0	0	0	0	0	0	1	0	2	0	181
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1656	28	0	10	1736	0	1	0	0	0	0	3	0	5	0	3439
APPROACH %'s :	0.00%	98.34%	1.66%	0.00%	0.57%	99.37%	0.00%	0.06%					37.50%	0.00%	62.50%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	483	18	0	5	538	0	0	0	0	0	0	1	0	1	0	1046
PEAK HR FACTOR :	0.000	0.856	0.500	0.000	0.313	0.796	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.838
		0.876				0.803								0.500			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
10:00 AM	0	98	0	0	0	103	0	0	0	0	0	0	0	0	0	0	201
10:15 AM	0	89	0	0	0	91	0	0	0	0	0	0	0	0	0	0	180
10:30 AM	0	79	0	0	0	86	0	0	0	0	0	0	0	0	0	0	165
10:45 AM	0	75	0	0	0	91	0	0	0	0	0	0	1	0	1	0	168
11:00 AM	0	64	0	0	0	139	0	0	0	0	0	0	1	0	2	0	206
11:15 AM	0	92	2	0	0	124	0	0	0	0	0	0	1	0	0	0	219
11:30 AM	0	104	0	0	1	112	0	0	0	0	0	0	3	0	1	0	221
11:45 AM	0	95	1	0	0	80	0	0	0	0	0	0	6	0	0	0	182
12:00 PM	0	104	0	0	0	89	0	0	0	0	0	0	0	0	1	0	194
12:15 PM	0	86	1	1	0	93	0	0	0	0	0	0	2	0	1	0	184
12:30 PM	0	91	3	0	0	83	0	0	0	0	0	0	0	0	0	0	177
12:45 PM	0	94	3	0	0	74	0	0	0	0	0	0	0	0	0	0	171
1:00 PM	0	84	0	1	2	82	0	0	0	0	0	0	0	0	0	0	169
1:15 PM	0	92	1	0	0	142	0	0	0	0	0	0	2	0	0	0	237
1:30 PM	0	144	2	0	0	178	0	0	0	0	0	0	2	0	1	0	327
1:45 PM	0	143	2	0	2	159	0	0	0	0	0	0	2	0	0	0	308
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1534	15	2	5	1726	0	0	0	0	0	0	20	0	7	0	3309
APPROACH %'s :	0.00%	98.90%	0.97%	0.13%	0.29%	99.71%	0.00%	0.00%					74.07%	0.00%	25.93%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	463	5	1	4	561	0	0	0	0	0	0	6	0	1	0	1041
PEAK HR FACTOR :	0.000	0.804	0.625	0.250	0.500	0.788	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.250	0.000	0.796
		0.803				0.794								0.583			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	99	2	0	2	126	0	0	0	0	0	0	1	0	2	0	232
2:15 PM	0	88	1	0	1	123	0	0	0	0	0	0	0	0	0	0	213
2:30 PM	0	114	0	0	0	148	0	0	0	0	0	0	0	0	0	0	262
2:45 PM	0	102	0	1	0	111	0	0	0	0	0	0	0	0	0	0	214
3:00 PM	0	106	0	0	0	113	0	0	0	0	0	0	0	0	0	0	219
3:15 PM	0	103	0	0	0	147	0	0	0	0	0	0	0	0	1	0	251
3:30 PM	0	109	0	0	0	137	0	0	0	0	0	0	0	0	0	0	246
3:45 PM	0	111	1	0	0	172	0	0	0	0	0	0	1	0	1	0	286
4:00 PM	0	132	2	0	0	141	0	0	0	0	0	0	2	0	1	0	278
4:15 PM	0	138	0	0	0	145	0	0	0	0	0	0	1	0	1	0	285
4:30 PM	0	157	0	0	1	126	0	0	0	0	0	0	2	0	0	0	286
4:45 PM	0	163	0	0	0	111	0	0	0	0	0	0	5	0	0	0	279
5:00 PM	0	141	1	0	0	136	0	0	0	0	0	0	4	0	3	0	285
5:15 PM	0	136	0	0	0	137	0	0	0	0	0	0	1	0	0	0	274
5:30 PM	0	126	0	1	0	131	0	0	0	0	0	0	1	0	0	0	259
5:45 PM	0	108	0	0	0	140	0	0	0	0	0	0	3	0	0	0	251
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1933	7	2	4	2144	0	0	0	0	0	0	21	0	9	0	4120
APPROACH %'s :	0.00%	99.54%	0.36%	0.10%	0.19%	99.81%	0.00%	0.00%					70.00%	0.00%	30.00%	0.00%	
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	538	3	0	1	584	0	0	0	0	0	0	6	0	3	0	1135
PEAK HR FACTOR :	0.000	0.857	0.375	0.000	0.250	0.849	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.992
		0.861				0.850								0.750			

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & California Dairies Dwy
City: Visalia
Control: No Control

Project ID: 22-090052-004
Date: 4/21/2022

Data - HT

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				California Dairies Dwy				California Dairies Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	15	0	0	0	7	0	0	0	0	0	0	0	0	0	0	22
6:15 AM	0	19	0	0	0	11	0	0	0	0	0	0	0	0	0	0	30
6:30 AM	0	17	0	0	0	11	0	0	0	0	0	0	0	0	0	0	28
6:45 AM	0	17	0	0	0	15	0	0	0	0	0	0	0	0	0	0	32
7:00 AM	0	27	0	0	0	17	0	0	0	0	0	0	0	0	0	0	44
7:15 AM	0	12	0	0	0	15	0	0	0	0	0	0	0	0	0	0	27
7:30 AM	0	17	0	0	0	15	0	0	0	0	0	0	0	0	0	0	32
7:45 AM	0	20	0	0	0	10	0	0	0	0	0	0	0	0	0	0	30
8:00 AM	0	25	0	0	0	21	0	0	0	0	0	0	0	0	0	0	46
8:15 AM	0	20	0	0	0	10	0	0	0	0	0	0	0	0	0	0	30
8:30 AM	0	20	0	0	0	11	0	0	0	0	0	0	0	0	0	0	31
8:45 AM	0	16	0	0	0	23	0	0	0	0	0	0	0	0	0	0	39
9:00 AM	0	20	0	0	0	22	0	0	0	0	0	0	0	0	0	0	42
9:15 AM	0	16	0	0	0	39	0	0	0	0	0	0	0	0	0	0	55
9:30 AM	0	22	0	0	0	46	0	0	0	0	0	0	0	0	0	0	68
9:45 AM	0	13	0	0	0	16	0	0	0	0	0	0	0	0	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	296	0	0	0	289	0	0	0	0	0	0	0	0	0	0	585
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	82	0	0	0	56	0	0	0	0	0	0	0	0	0	0	138
PEAK HR FACTOR :	0.000	0.820	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
		0.820				0.667											

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
10:00 AM	0	12	0	0	0	14	0	0	0	0	0	0	0	0	0	0	26
10:15 AM	0	18	0	0	0	18	0	0	0	0	0	0	0	0	0	0	36
10:30 AM	0	26	0	0	0	24	0	0	0	0	0	0	0	0	0	0	50
10:45 AM	0	26	0	0	0	17	0	0	0	0	0	0	0	0	0	0	43
11:00 AM	0	18	0	0	0	16	0	0	0	0	0	0	0	0	0	0	34
11:15 AM	0	14	0	0	0	24	0	0	0	0	0	0	0	0	0	0	38
11:30 AM	0	21	0	0	0	24	0	0	0	0	0	0	0	0	0	0	45
11:45 AM	0	12	0	0	0	18	0	0	0	0	0	0	0	0	0	0	30
12:00 PM	0	20	0	0	0	22	0	0	0	0	0	0	0	0	0	0	42
12:15 PM	0	27	0	0	0	13	0	0	0	0	0	0	0	0	0	0	40
12:30 PM	0	17	0	0	0	9	0	0	0	0	0	0	0	0	0	0	26
12:45 PM	0	14	0	0	0	14	0	0	0	0	0	0	0	0	0	0	28
1:00 PM	0	14	0	0	0	10	0	0	0	0	0	0	0	0	0	0	24
1:15 PM	0	15	0	0	0	11	0	0	0	0	0	0	0	0	0	0	26
1:30 PM	0	17	0	0	0	16	0	0	0	0	0	0	0	0	0	0	33
1:45 PM	0	18	0	0	0	17	0	0	0	0	0	0	0	0	0	0	35
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	289	0	0	0	267	0	0	0	0	0	0	0	0	0	0	556
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	64	0	0	0	54	0	0	0	0	0	0	0	0	0	0	118
PEAK HR FACTOR :	0.000	0.889	0.000	0.000	0.000	0.794	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.843
		0.889				0.794											

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	24	0	0	0	18	0	0	0	0	0	0	0	0	0	0	42
2:15 PM	0	19	0	0	0	20	0	0	0	0	0	0	0	0	0	0	39
2:30 PM	0	15	0	0	0	13	0	0	0	0	0	0	0	0	0	0	28
2:45 PM	0	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	38
3:00 PM	0	13	0	0	0	20	0	0	0	0	0	0	0	0	0	0	33
3:15 PM	0	14	0	0	0	18	0	0	0	0	0	0	0	0	0	0	32
3:30 PM	0	13	0	0	0	18	0	0	0	0	0	0	0	0	0	0	31
3:45 PM	0	14	0	0	0	14	0	0	0	0	0	0	0	0	0	0	28
4:00 PM	0	24	0	0	0	16	0	0	0	0	0	0	0	0	0	0	40
4:15 PM	0	23	0	0	0	20	0	0	0	0	0	0	0	0	0	0	43
4:30 PM	0	11	0	0	0	15	0	0	0	0	0	0	0	0	0	0	26
4:45 PM	0	14	0	0	0	17	0	0	0	0	0	0	0	0	0	0	31
5:00 PM	0	19	0	0	0	14	0	0	0	0	0	0	0	0	0	0	33
5:15 PM	0	11	0	0	0	15	0	0	0	0	0	0	0	0	0	0	26
5:30 PM	0	13	0	0	0	11	0	0	0	0	0	0	0	0	0	0	24
5:45 PM	0	12	0	0	0	9	0	0	0	0	0	0	0	0	0	0	21
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	258	0	0	0	257	0	0	0	0	0	0	0	0	0	0	515
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	72	0	0	0	65	0	0	0	0	0	0	0	0	0	0	137
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.797
		0.750				0.813											

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & California Dairies Dwy
City: Visalia
Control: No Control

Project ID: 22-090052-004
Date: 4/21/2022

Data - Bikes

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				California Dairies Dwy				California Dairies Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%													
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%									
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & California Dairies Dwy
City: Visalia
Project ID: 22-090052-004
Date: 4/21/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr		CR J19/Rd 80/N Plaza Dr		California Dairies Dwy		California Dairies Dwy		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	1
APPROACH %'s :					0.00%	100.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	01:00 PM - 02:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	03:45 PM - 04:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

CR J19/Rd 80/N Plaza Dr & California Dairies Dwy

Peak Hour Turning Movement Count

ID: 22-090052-004
City: Visalia

Day: Thursday
Date: 4/21/2022

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	01:00 PM - 02:00 PM
PM	03:45 PM - 04:45 PM

COUNT PERIODS

AM	6:00 AM - 10:00 AM
NOON	10:00 AM - 02:00 PM
PM	2:00 PM - 06:00 PM

SOUTHBOUND — CR J19/Rd 80/N Plaza Dr

AM	0	594	5	0	566	AM
NOON	0	615	4	0	528	NOON
PM	0	649	1	0	613	PM
	0	2	0	0		

EASTBOUND — California Dairies Dwy

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND — California Dairies Dwy

	PM	NOON	AM
0	3	1	1
1	0	0	0
0	6	6	1
0	0	0	0
	4	9	23
	PM	NOON	AM

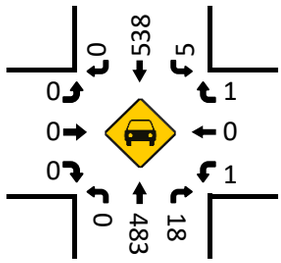
NORTHBOUND — CR J19/Rd 80/N Plaza Dr

PM	655	0	0	610	3	PM
NOON	622	1	0	527	5	NOON
AM	595	0	0	565	18	AM
		0	0	2	0	

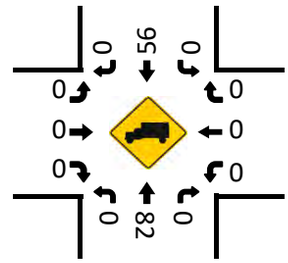
CONTROL: No Control

	AM	NOON	PM
TEV	1184	1159	1272
PHF	0.86	0.80	0.97

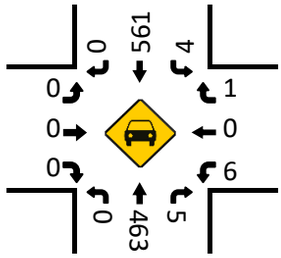
Cars (AM)



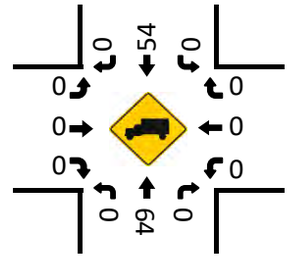
HT (AM)



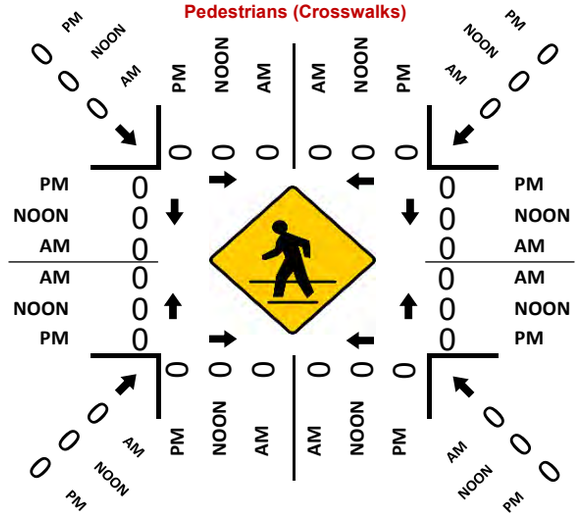
Cars (NOON)



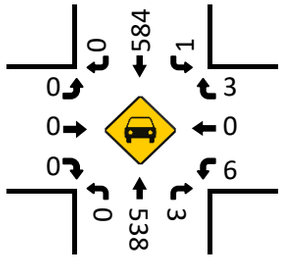
HT (NOON)



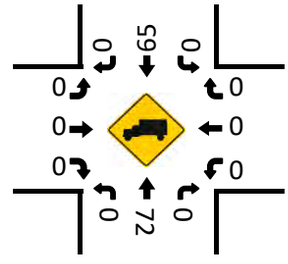
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & W Goshen Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-005
Date: 4/21/2022

Data - Total

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				W Goshen Ave				W Goshen Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	25	113	13	2	34	85	9	0	6	21	33	0	4	22	15	1	383
7:15 AM	32	106	19	4	24	88	8	0	8	28	36	1	12	30	21	1	418
7:30 AM	34	140	16	5	29	126	11	0	4	42	59	0	8	25	19	6	524
7:45 AM	31	131	14	4	36	126	10	0	5	41	68	0	16	25	20	4	531
8:00 AM	42	110	19	4	26	104	11	0	8	46	29	0	17	34	21	7	478
8:15 AM	55	114	15	5	20	92	9	0	9	22	27	0	16	37	26	4	451
8:30 AM	24	97	8	2	22	85	9	0	3	27	28	0	15	24	18	9	371
8:45 AM	30	90	9	8	21	107	13	0	6	18	27	0	18	21	12	3	383
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	273	901	113	34	212	813	80	0	49	245	307	1	106	218	152	35	3539
APPROACH %'s :	20.67%	68.21%	8.55%	2.57%	19.19%	73.57%	7.24%	0.00%	8.14%	40.70%	51.00%	0.17%	20.74%	42.66%	29.75%	6.85%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	162	495	64	18	111	448	41	0	26	151	183	0	57	121	86	21	1984
PEAK HR FACTOR :	0.736	0.884	0.842	0.900	0.771	0.889	0.932	0.000	0.722	0.821	0.673	0.000	0.838	0.818	0.827	0.750	0.934
	0.947				0.872				0.789				0.858				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	29	116	19	7	33	124	12	0	14	66	63	0	22	36	23	3	567
4:15 PM	32	122	16	10	30	132	10	0	17	50	36	0	13	34	24	2	528
4:30 PM	32	124	13	6	29	111	6	0	22	57	75	0	16	36	25	2	554
4:45 PM	38	132	9	6	19	106	2	0	17	38	37	0	24	31	27	3	489
5:00 PM	33	117	17	4	17	147	6	0	21	52	55	0	22	34	22	3	550
5:15 PM	37	129	11	2	14	124	7	0	7	36	32	0	17	30	11	3	460
5:30 PM	37	108	16	4	21	119	6	0	9	39	27	0	14	29	20	6	455
5:45 PM	21	98	7	4	29	124	3	0	6	23	27	0	17	16	18	4	397
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	259	946	108	43	192	987	52	0	113	361	352	0	145	246	170	26	4000
APPROACH %'s :	19.10%	69.76%	7.96%	3.17%	15.60%	80.18%	4.22%	0.00%	13.68%	43.70%	42.62%	0.00%	24.70%	41.91%	28.96%	4.43%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	131	494	57	29	111	473	30	0	70	211	211	0	75	137	99	10	2138
PEAK HR FACTOR :	0.862	0.936	0.750	0.725	0.841	0.896	0.625	0.000	0.795	0.799	0.703	0.000	0.781	0.951	0.917	0.833	0.943
	0.961				0.892				0.799				0.944				

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & W Goshen Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-005
Date: 4/21/2022

Data - Cars

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				W Goshen Ave				W Goshen Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	21	91	9	1	30	75	6	0	6	20	29	0	3	19	13	1	324
7:15 AM	31	101	14	4	20	76	8	0	6	28	33	1	10	29	17	1	379
7:30 AM	32	129	15	5	28	116	10	0	4	41	57	0	7	23	14	6	487
7:45 AM	28	117	14	4	35	119	10	0	3	34	64	0	13	24	18	4	487
8:00 AM	40	89	16	4	23	93	8	0	6	44	26	0	17	33	19	7	425
8:15 AM	53	101	15	5	16	85	8	0	7	20	25	0	13	34	21	4	407
8:30 AM	22	83	7	2	22	72	8	0	2	23	23	0	9	22	14	9	318
8:45 AM	29	78	7	8	18	92	8	0	4	15	24	0	16	20	10	3	332
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	256	789	97	33	192	728	66	0	38	225	281	1	88	204	126	35	3159
APPROACH %'s :	21.79%	67.15%	8.26%	2.81%	19.47%	73.83%	6.69%	0.00%	6.97%	41.28%	51.56%	0.18%	19.43%	45.03%	27.81%	7.73%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	153	436	60	18	102	413	36	0	20	139	172	0	50	114	72	21	1806
PEAK HR FACTOR :	0.722	0.845	0.938	0.900	0.729	0.868	0.900	0.000	0.714	0.790	0.672	0.000	0.735	0.838	0.857	0.750	0.927
	0.921				0.840				0.811				0.845				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	26	98	16	7	31	113	10	0	12	63	58	0	20	32	20	3	509
4:15 PM	31	106	14	10	26	118	8	0	15	45	30	0	12	32	18	2	467
4:30 PM	31	116	12	6	24	102	4	0	21	52	72	0	13	35	23	2	513
4:45 PM	35	121	7	6	17	91	2	0	14	36	36	0	23	29	24	3	444
5:00 PM	31	102	15	4	14	142	3	0	17	52	53	0	19	30	21	3	506
5:15 PM	36	119	10	2	12	113	4	0	6	34	31	0	17	27	11	3	425
5:30 PM	34	99	12	4	18	114	4	0	7	38	27	0	14	28	17	6	422
5:45 PM	19	89	6	4	25	120	2	0	5	23	26	0	16	16	14	4	369
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	243	850	92	43	167	913	37	0	97	343	333	0	134	229	148	26	3655
APPROACH %'s :	19.79%	69.22%	7.49%	3.50%	14.95%	81.74%	3.31%	0.00%	12.55%	44.37%	43.08%	0.00%	24.95%	42.64%	27.56%	4.84%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	123	441	49	29	98	424	24	0	62	196	196	0	68	128	85	10	1933
PEAK HR FACTOR :	0.879	0.911	0.766	0.725	0.790	0.898	0.600	0.000	0.738	0.778	0.681	0.000	0.739	0.914	0.885	0.833	0.942
	0.950				0.886				0.783				0.921				

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & W Goshen Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-005
Date: 4/21/2022

Data - HT

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				W Goshen Ave				W Goshen Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	22	4	1	4	10	3	0	0	1	4	0	1	3	2	0	59
7:15 AM	1	5	5	0	4	12	0	0	2	0	3	0	2	1	4	0	39
7:30 AM	2	11	1	0	1	10	1	0	0	1	2	0	1	2	5	0	37
7:45 AM	3	14	0	0	1	7	0	0	2	7	4	0	3	1	2	0	44
8:00 AM	2	21	3	0	3	11	3	0	2	2	3	0	0	1	2	0	53
8:15 AM	2	13	0	0	4	7	1	0	2	2	2	0	3	3	5	0	44
8:30 AM	2	14	1	0	0	13	1	0	1	4	5	0	6	2	4	0	53
8:45 AM	1	12	2	0	3	15	5	0	2	3	3	0	2	1	2	0	51
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	17	112	16	1	20	85	14	0	11	20	26	0	18	14	26	0	380
APPROACH %'s :	11.64%	76.71%	10.96%	0.68%	16.81%	71.43%	11.76%	0.00%	19.30%	35.09%	45.61%	0.00%	31.03%	24.14%	44.83%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	9	59	4	0	9	35	5	0	6	12	11	0	7	7	14	0	178
PEAK HR FACTOR :	0.750	0.702	0.333	0.000	0.563	0.795	0.417	0.000	0.750	0.429	0.688	0.000	0.583	0.583	0.700	0.000	0.840
	0.692				0.721				0.558				0.636				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	18	3	0	2	11	2	0	2	3	5	0	2	4	3	0	58
4:15 PM	1	16	2	0	4	14	2	0	2	5	6	0	1	2	6	0	61
4:30 PM	1	8	1	0	5	9	2	0	1	5	3	0	3	1	2	0	41
4:45 PM	3	11	2	0	2	15	0	0	3	2	1	0	1	2	3	0	45
5:00 PM	2	15	2	0	3	5	3	0	4	0	2	0	3	4	1	0	44
5:15 PM	1	10	1	0	2	11	3	0	1	2	1	0	0	3	0	0	35
5:30 PM	3	9	4	0	3	5	2	0	2	1	0	0	0	1	3	0	33
5:45 PM	2	9	1	0	4	4	1	0	1	0	1	0	1	0	4	0	28
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	16	96	16	0	25	74	15	0	16	18	19	0	11	17	22	0	345
APPROACH %'s :	12.50%	75.00%	12.50%	0.00%	21.93%	64.91%	13.16%	0.00%	30.19%	33.96%	35.85%	0.00%	22.00%	34.00%	44.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	8	53	8	0	13	49	6	0	8	15	15	0	7	9	14	0	205
PEAK HR FACTOR :	0.667	0.736	0.667	0.000	0.650	0.817	0.750	0.000	0.667	0.750	0.625	0.000	0.583	0.563	0.583	0.000	0.840
	0.719				0.850				0.731				0.833				

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & W Goshen Ave
City: Visalia
Control: Signalized

Project ID: 22-090052-005
Date: 4/21/2022

Data - Bikes

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr				CR J19/Rd 80/N Plaza Dr				W Goshen Ave				W Goshen Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	4
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	33.33%	33.33%	0.00%	33.33%									
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.250				0.250												0.333

National Data & Surveying Services Intersection Turning Movement Count

Location: CR J19/Rd 80/N Plaza Dr & W Goshen Ave
City: Visalia
Project ID: 22-090052-005
Date: 4/21/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	CR J19/Rd 80/N Plaza Dr		CR J19/Rd 80/N Plaza Dr		W Goshen Ave		W Goshen Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	1	1	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	1	1	0	0	0	3
APPROACH %'s :	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :		0.250							0.250
	0.250								

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	1	0	1	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	1
5:30 PM	2	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	1	0	1	1	0	0	0	5
APPROACH %'s :	66.67%	33.33%	0.00%	100.00%	100.00%	0.00%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	1	0	1	0	0	0	0	2
PEAK HR FACTOR :		0.250		0.250					0.250
	0.250								

Prepared by National Data & Surveying Services

CR J19/Rd 80/N Plaza Dr & W Goshen Ave

Peak Hour Turning Movement Count

ID: 22-090052-005
City: Visalia

Day: Thursday
Date: 4/21/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND — CR J19/Rd 80/N Plaza Dr

	1	2	1	0	
AM	41	448	111	0	607
NOON	0	0	0	0	0
PM	30	473	111	0	663

EASTBOUND — W Goshen Ave

	AM	NOON	PM
0	0	0	0
1	26	0	70
2	151	0	211
1	183	0	211
	324	0	298

WESTBOUND — W Goshen Ave

	PM	NOON	AM
1	99	0	86
2	137	0	121
1	75	0	57
0	10	0	21
	389	0	347

NORTHBOUND — CR J19/Rd 80/N Plaza Dr

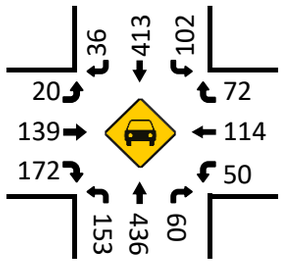
	0	1	2	1	
PM	788	29	131	494	57
NOON	0	0	0	0	0
AM	706	18	162	495	64

CONTROL

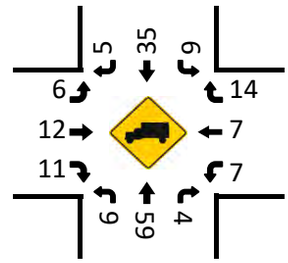
Signalized

TEV	1984	0	2138
	AM	NOON	PM
PHF	0.93		0.94

Cars (AM)



HT (AM)



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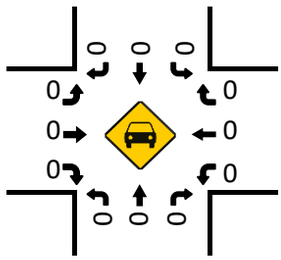
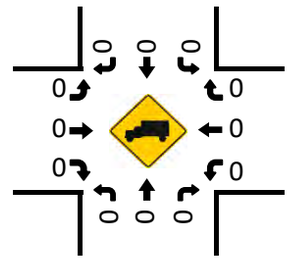
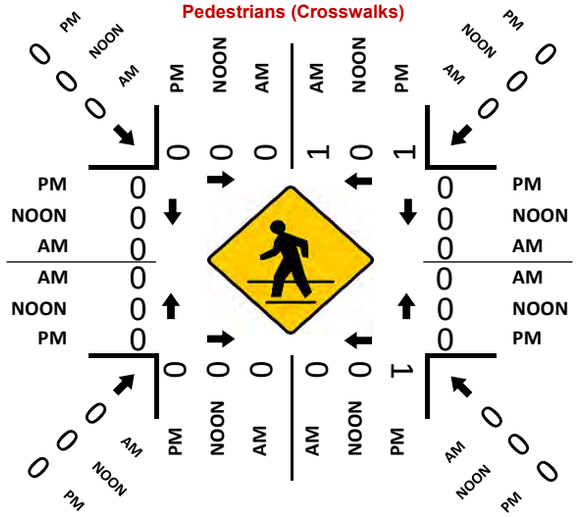


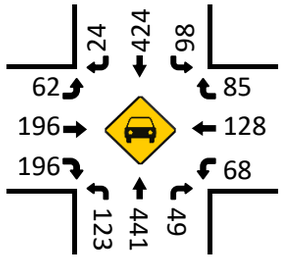
HT (NOON)



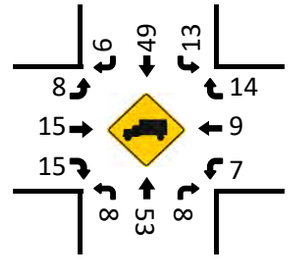
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

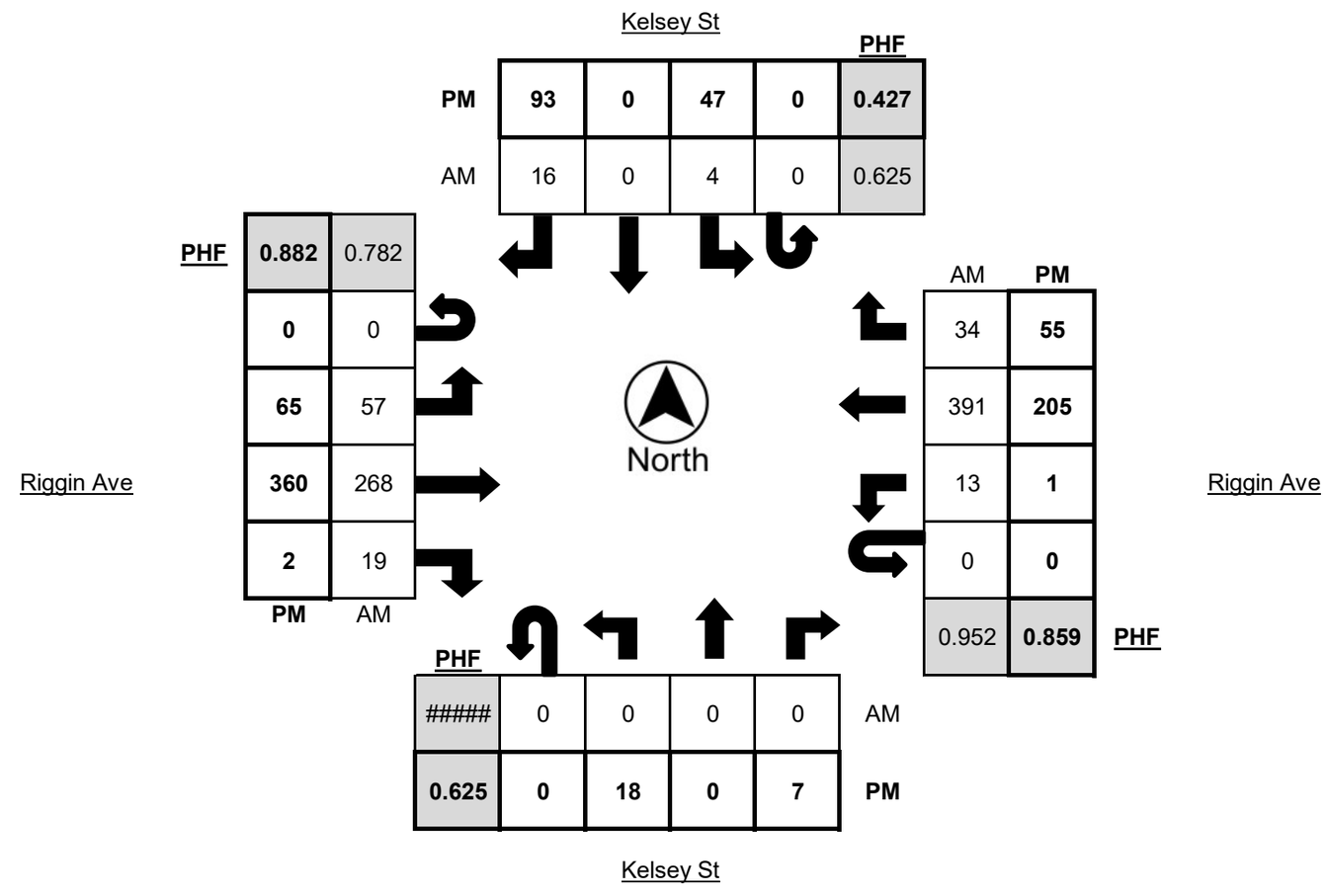
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Kelsey St @ Riggin Ave
LATITUDE 36.3563
COUNTY Tulare
LONGITUDE -119.3857
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	0	1	0	1	0	1	0	7	2	0	4	37	3	2	0	0	71	3	3
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	4	1	0	9	31	2	4	0	0	76	4	2
6:30 AM - 6:45 AM	0	0	0	0	0	0	1	0	2	0	0	19	38	0	5	0	2	57	18	5
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	1	0	0	28	52	14	8	0	3	75	22	3
7:00 AM - 7:15 AM	0	1	0	0	0	0	1	0	0	0	0	36	54	2	5	0	1	75	23	7
7:15 AM - 7:30 AM	0	0	0	0	0	0	3	0	5	3	0	31	47	0	7	0	0	87	24	4
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	5	1	0	11	63	2	7	0	1	108	6	7
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	3	0	0	5	92	13	3	0	7	91	2	4
8:00 AM - 8:15 AM	0	0	0	0	0	0	1	0	3	0	0	10	66	4	9	0	5	105	2	4
8:15 AM - 8:30 AM	0	0	0	0	0	0	1	0	1	0	0	5	69	3	8	0	1	111	6	6
8:30 AM - 8:45 AM	0	1	0	0	1	0	2	0	6	3	0	5	58	1	8	0	0	75	2	8
8:45 AM - 9:00 AM	0	1	0	2	0	0	0	0	4	2	0	8	41	3	7	0	2	62	3	7
9:00 AM - 9:15 AM	0	0	0	1	0	0	2	0	5	1	0	5	41	3	6	0	0	58	2	4
9:15 AM - 9:30 AM	0	0	1	0	0	0	1	0	3	1	0	2	50	1	5	1	0	40	1	3
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	4	1	0	8	58	0	15	0	1	59	2	10
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	2	0	1	5	68	0	4	0	1	42	0	5
10:00 AM - 10:15 AM	0	1	0	1	0	0	1	0	4	1	0	3	51	3	9	0	1	55	3	7
10:15 AM - 10:30 AM	0	3	0	1	1	0	3	0	2	2	0	2	55	1	12	0	1	44	1	3
10:30 AM - 10:45 AM	0	2	0	3	0	0	2	0	3	3	0	4	69	1	11	0	2	54	2	6
10:45 AM - 11:00 AM	0	0	0	1	0	0	1	0	5	3	0	7	51	2	8	0	2	55	4	7
11:00 AM - 11:15 AM	0	1	0	1	1	0	1	0	7	4	0	5	47	2	7	0	1	54	0	8
11:15 AM - 11:30 AM	0	1	0	0	0	0	2	0	8	2	0	9	75	0	12	0	1	62	3	9
11:30 AM - 11:45 AM	0	4	0	0	0	0	2	0	4	1	0	7	50	3	2	0	1	46	1	6
11:45 AM - 12:00 PM	0	2	0	0	0	0	2	0	4	1	0	6	54	2	8	0	0	53	3	8
12:00 PM - 12:15 PM	0	2	0	0	1	0	5	0	25	3	0	3	72	1	8	0	0	66	2	5
12:15 PM - 12:30 PM	0	1	0	0	0	0	2	0	6	2	0	20	71	2	14	0	0	48	4	4
12:30 PM - 12:45 PM	0	2	1	1	0	0	4	0	7	1	0	5	65	2	5	0	2	58	1	4
12:45 PM - 1:00 PM	0	2	0	3	2	0	1	0	8	5	0	5	62	1	9	0	1	54	3	7
1:00 PM - 1:15 PM	0	1	0	0	0	0	5	0	4	1	0	5	66	0	8	0	0	68	2	10
1:15 PM - 1:30 PM	0	0	0	0	0	0	2	1	7	4	0	3	81	1	7	0	0	64	3	7
1:30 PM - 1:45 PM	0	3	0	2	1	0	6	0	12	4	0	4	124	0	8	0	1	80	2	7
1:45 PM - 2:00 PM	0	1	0	0	4	0	3	0	3	3	0	4	81	1	9	0	1	80	0	5
2:00 PM - 2:15 PM	0	0	0	1	0	0	2	0	4	2	0	4	86	0	3	0	1	66	0	9
2:15 PM - 2:30 PM	0	0	1	2	0	0	4	0	3	2	0	4	76	1	11	0	0	69	2	5
2:30 PM - 2:45 PM	0	5	1	7	1	0	12	1	11	2	0	2	92	2	4	0	0	68	1	4
2:45 PM - 3:00 PM	0	4	0	3	0	0	3	0	2	1	0	4	110	1	12	0	0	57	7	11
3:00 PM - 3:15 PM	0	2	0	3	1	0	2	0	8	1	0	5	108	2	9	0	0	77	0	11
3:15 PM - 3:30 PM	0	3	0	1	0	0	4	0	9	7	0	2	74	4	4	0	0	81	0	6
3:30 PM - 3:45 PM	0	6	0	5	0	0	4	0	7	4	0	4	78	2	8	0	0	89	1	6
3:45 PM - 4:00 PM	0	4	0	1	1	0	11	0	10	0	0	0	82	1	7	0	0	85	1	6
4:00 PM - 4:15 PM	0	0	0	1	0	0	8	0	12	1	0	1	102	0	5	0	0	65	2	6
4:15 PM - 4:30 PM	0	4	0	8	0	0	8	0	8	2	0	2	97	0	7	0	0	62	2	4
4:30 PM - 4:45 PM	0	13	0	8	0	0	3	0	8	1	0	3	88	1	3	0	1	82	2	8
4:45 PM - 5:00 PM	0	3	0	5	0	0	6	0	4	1	0	6	108	5	6	0	0	83	0	4
5:00 PM - 5:15 PM	0	8	0	4	0	0	4	0	7	1	0	8	92	2	4	0	0	67	4	9
5:15 PM - 5:30 PM	0	8	0	1	0	0	1	0	5	2	0	11	109	1	7	0	0	52	6	2
5:30 PM - 5:45 PM	0	8	0	2	1	0	9	0	27	0	0	18	98	1	6	0	1	49	12	6
5:45 PM - 6:00 PM	0	0	0	2	5	0	4	0	12	2	0	21	95	0	6	0	0	53	23	2
6:00 PM - 6:15 PM	0	2	0	2	0	0	33	0	49	3	0	15	58	0	2	0	0	51	14	6
6:15 PM - 6:30 PM	0	0	0	1	0	0	8	0	14	2	0	19	76	0	4	0	0	45	26	6
6:30 PM - 6:45 PM	0	2	1	0	1	0	2	0	4	2	0	2	59	0	1	0	0	39	4	5
6:45 PM - 7:00 PM	0	0	0	0	0	0	1	0	4	1	1	0	54	0	2	0	0	48	2	0
7:00 PM - 7:15 PM	0	0	0	2	0	0	2	0	2	0	0	2	55	0	0	0	0	39	1	4
7:15 PM - 7:30 PM	0	0	0	2	0	0	1	0	6	0	0	3	48	0	2	0	0	43	0	1
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	1	0	0	3	54	0	1	0	0	35	2	4
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	2	0	0	3	53	0	3	0	0	33	0	3
TOTAL	**0**	**101**	**6**	**77**	**22**	**0**	**187**	**2**	**383**	**92**	**2**	**425**	**3891**	**96**	**357**	**1**	**41**	**3571**	**266**	**313**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:15 AM - 8:15 AM	0	0	0	0	0	0	4	0	16	4	0	57	268	19	26	0	13	391	34	19
5:15 PM - 6:15 PM	0	18	0	7	6	0	47	0	93	7	0	65	360	2	21	0	1	205	55	16

	PHF	Trucks
AM	0.941	6.1%
PM	0.948	5.9%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

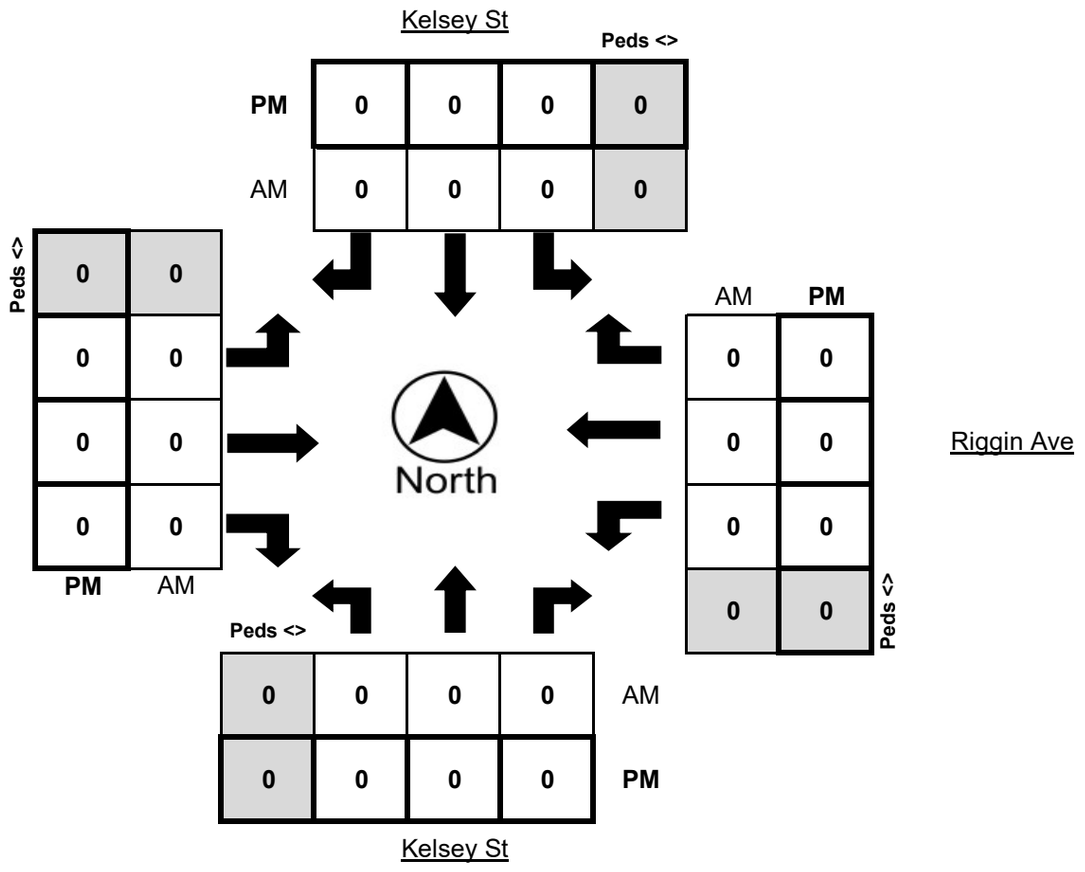
Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Kelsey St @ Riggin Ave
LATITUDE 36.3563
COUNTY Tulare
LONGITUDE -119.3857
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

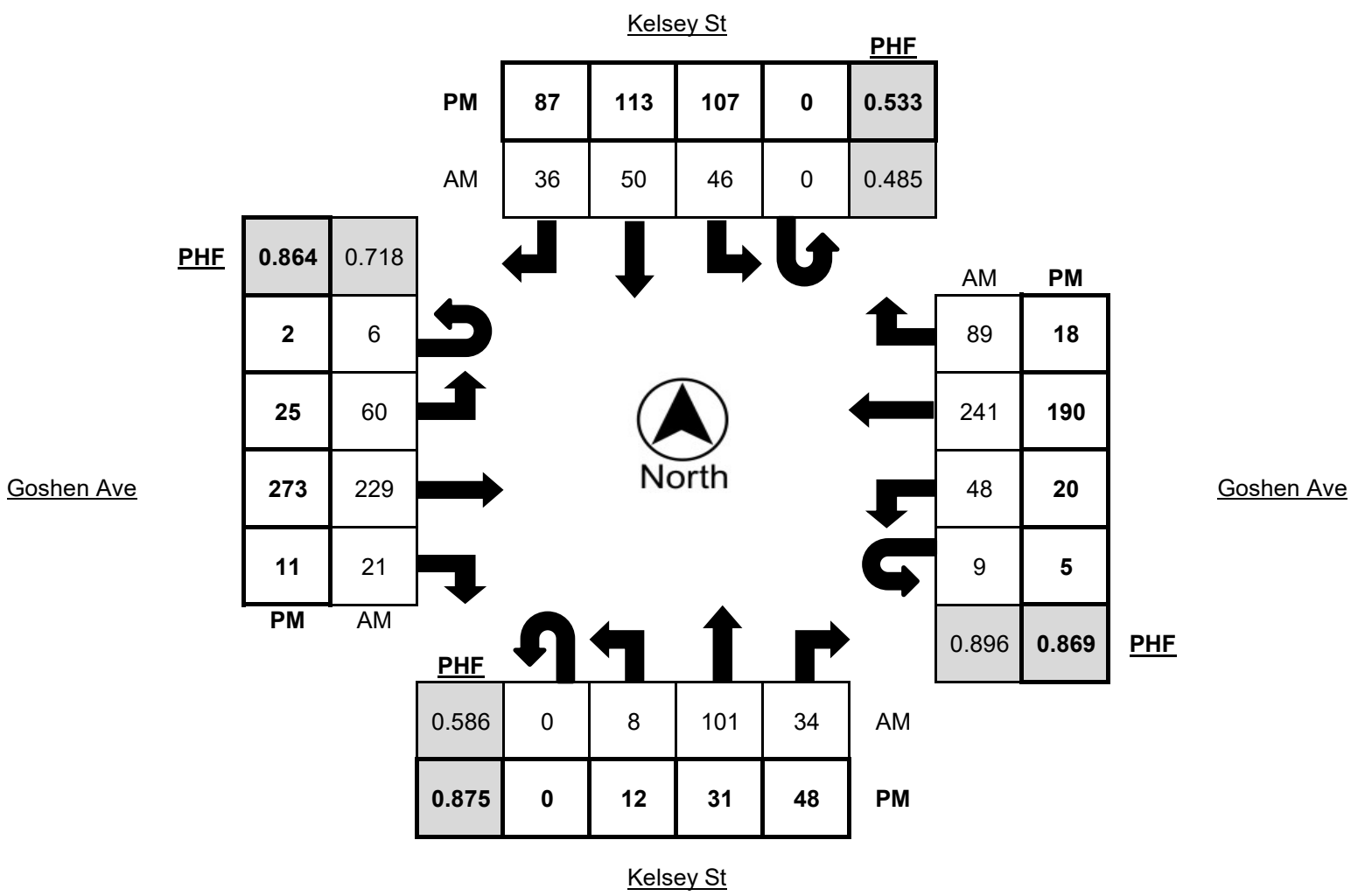
LOCATION Kelsey St @ Goshen Ave
LATITUDE 36.3420
COUNTY Tulare
LONGITUDE -119.3856
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	2	13	8	1	0	5	8	9	6	1	9	45	5	3	0	7	39	12	2
7:15 AM - 7:30 AM	0	1	17	11	4	0	8	5	3	3	4	21	26	3	11	2	12	40	10	1
7:30 AM - 7:45 AM	0	2	32	2	5	0	5	4	7	2	2	12	52	6	4	3	15	54	26	4
7:45 AM - 8:00 AM	0	2	44	15	9	0	7	11	9	5	1	23	81	5	6	3	13	55	37	2
8:00 AM - 8:15 AM	0	3	12	7	1	0	30	25	13	6	2	14	58	3	9	3	9	72	17	1
8:15 AM - 8:30 AM	0	1	13	10	2	0	4	10	7	1	1	11	38	7	9	0	11	60	9	5
8:30 AM - 8:45 AM	0	3	9	12	4	0	9	7	10	3	0	10	54	3	8	3	5	41	6	1
8:45 AM - 9:00 AM	0	3	5	11	5	0	3	6	11	5	2	14	33	0	8	3	9	35	4	5
TOTAL	**0**	**17**	**145**	**76**	**31**	**0**	**71**	**76**	**69**	**31**	**13**	**114**	**387**	**32**	**58**	**17**	**81**	**396**	**121**	**21**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	10	10	3	0	59	41	44	8	1	5	67	2	4	2	5	53	7	5
4:15 PM - 4:30 PM	0	5	9	12	5	0	17	25	11	7	0	5	75	5	7	1	5	40	3	3
4:30 PM - 4:45 PM	0	1	7	13	2	0	21	26	17	5	1	6	80	3	11	1	4	48	6	6
4:45 PM - 5:00 PM	0	6	5	13	3	0	10	21	15	8	0	9	51	1	4	1	6	49	2	2
5:00 PM - 5:15 PM	0	5	5	26	3	0	27	23	14	3	1	4	73	5	5	2	7	47	4	2
5:15 PM - 5:30 PM	0	2	3	7	0	0	7	11	8	2	2	5	63	2	4	1	4	53	4	3
5:30 PM - 5:45 PM	0	0	5	8	3	0	16	14	9	5	0	5	57	2	3	0	7	39	3	0
5:45 PM - 6:00 PM	0	0	2	9	1	0	6	8	9	6	0	3	46	2	4	0	3	31	3	1
TOTAL	**0**	**19**	**46**	**98**	**20**	**0**	**163**	**169**	**127**	**44**	**5**	**42**	**512**	**22**	**42**	**8**	**41**	**360**	**32**	**22**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	8	101	34	17	0	46	50	36	14	6	60	229	21	28	9	48	241	89	12
4:00 PM - 5:00 PM	0	12	31	48	13	0	107	113	87	28	2	25	273	11	26	5	20	190	18	16

	PHF	Trucks
AM	0.799	7.3%
PM	0.770	8.8%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

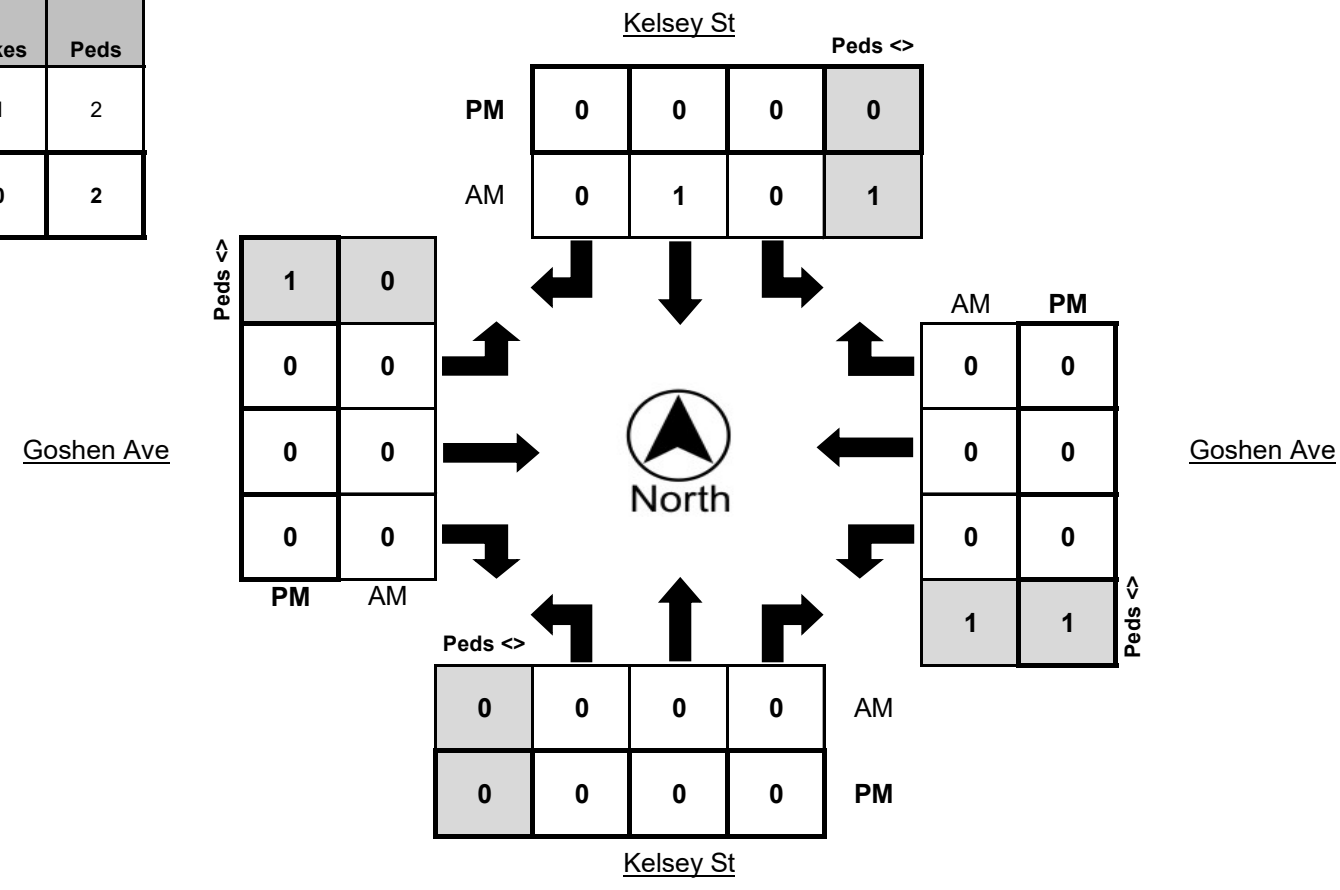
LOCATION Kelsey St @ Goshen Ave
LATITUDE 36.3420
COUNTY Tulare
LONGITUDE -119.3856
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**1**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1

	Bikes	Peds
AM Peak Total	1	2
PM Peak Total	0	2



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

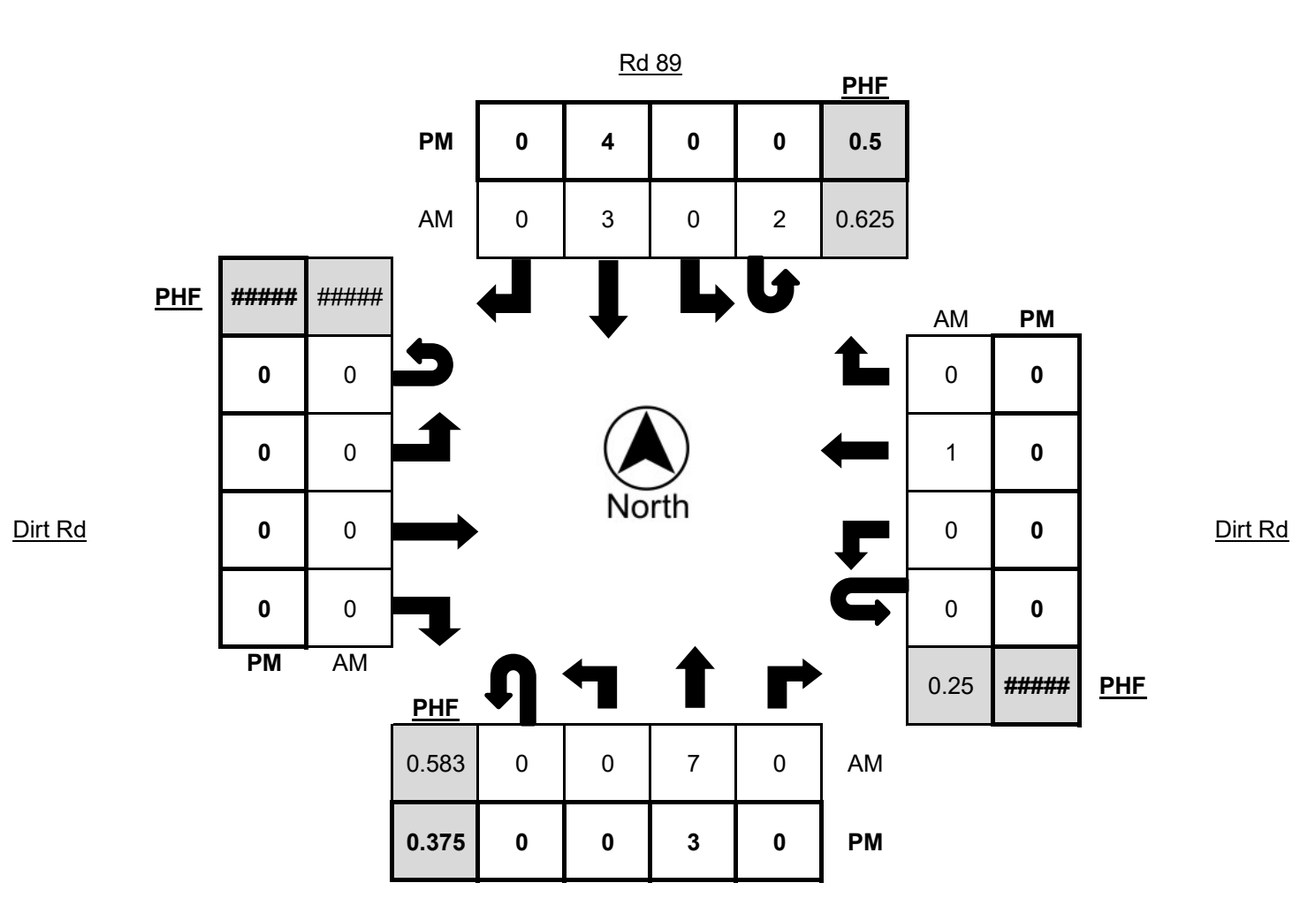
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Rd 89 @ Ditch n/o Riggin Ave
LATITUDE 36.3625
COUNTY Tulare
LONGITUDE -119.3755
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	1	0	1	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	1	0	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	2	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	29	0	7	2	2	28	0	5	0	0	2	0	0	0	0	2	0	0

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
9:00 AM - 10:00 AM	0	0	7	0	3	2	0	3	0	1	0	0	0	0	0	0	0	1	0	0
4:15 PM - 5:15 PM	0	0	3	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0

	PHF	Trucks
AM	0.542	30.8%
PM	0.438	0.0%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

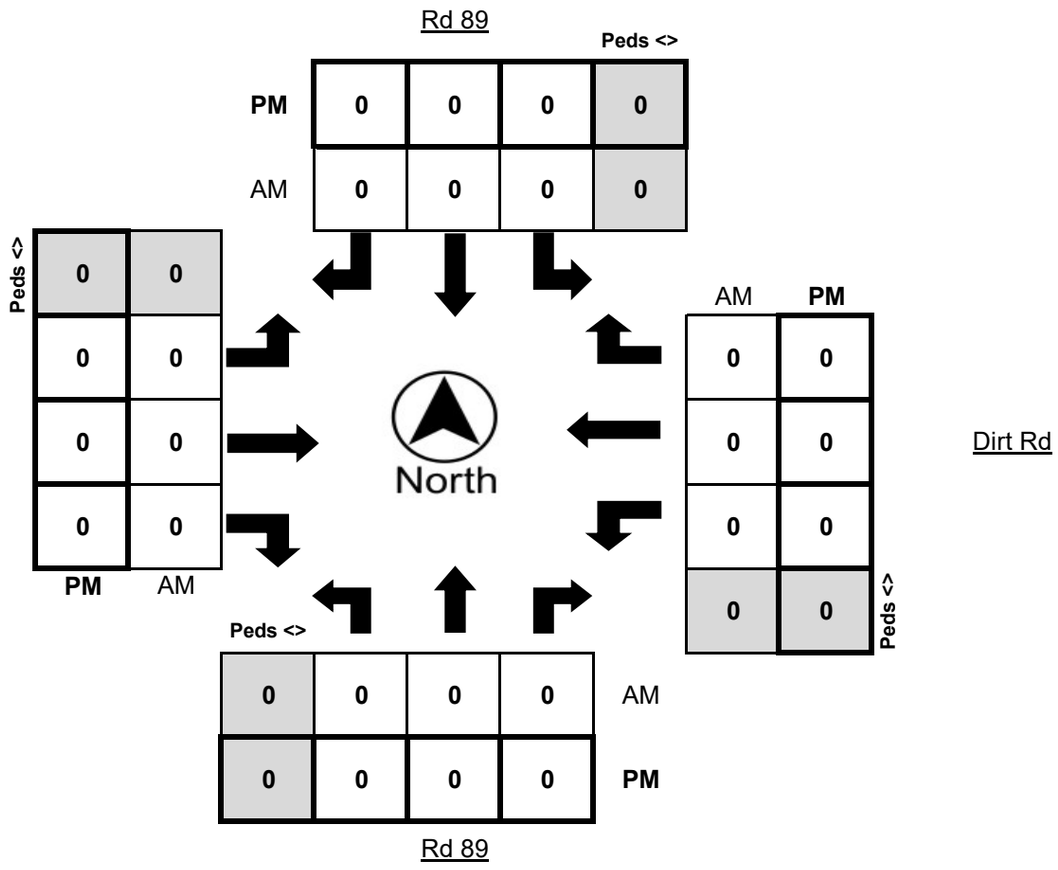
Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Rd 89 @ Ditch n/o Riggin Ave
LATITUDE 36.3625
COUNTY Tulare
LONGITUDE -119.3755
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
9:00 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Shirk St @ Ave 320 **LATITUDE** 36.3709

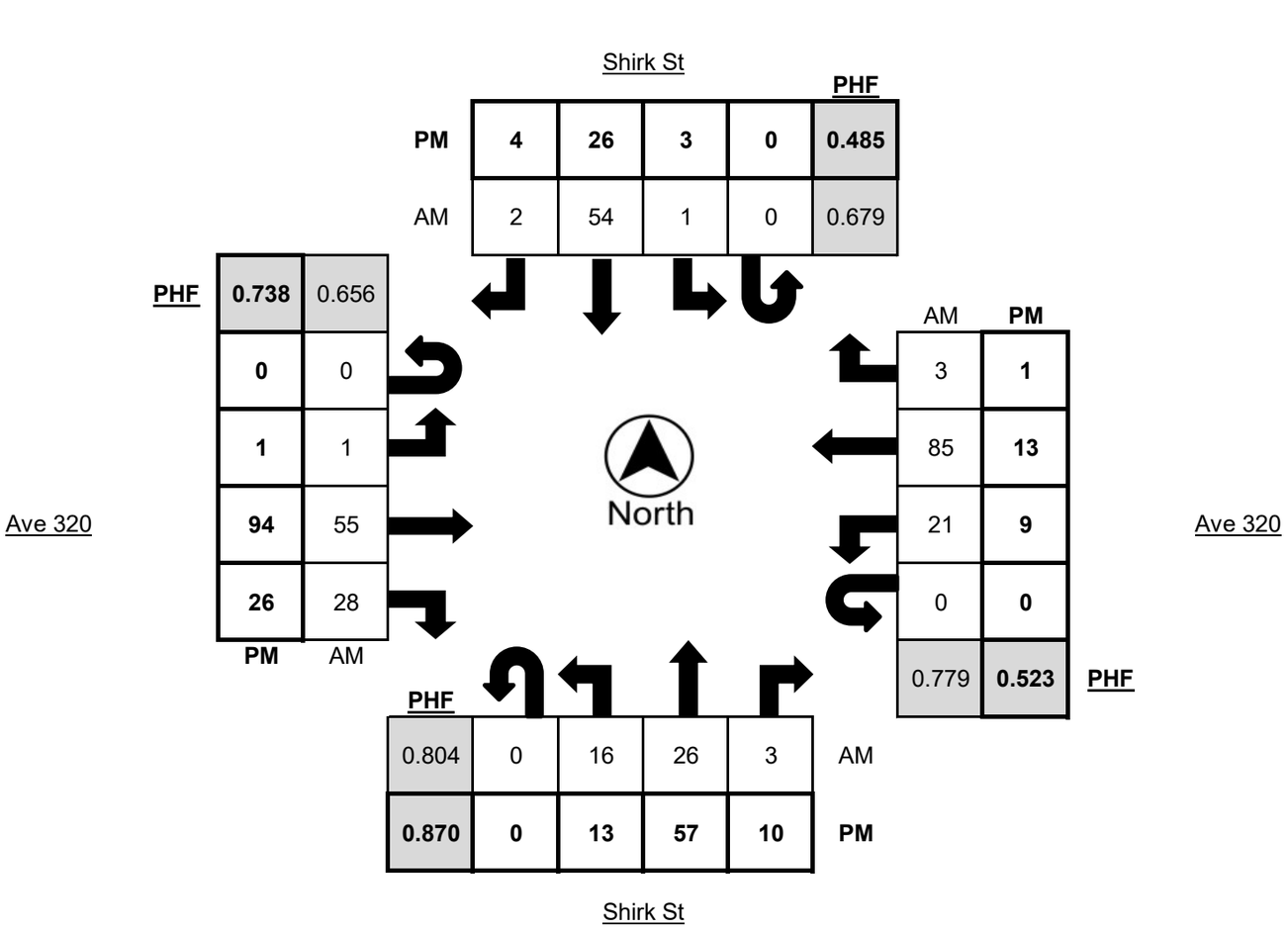
COUNTY Tulare **LONGITUDE** -119.3679

COLLECTION DATE Wednesday, May 25, 2022 **WEATHER** Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	4	3	4	3	0	1	2	0	1	0	0	8	1	0	0	2	0	0	0
6:15 AM - 6:30 AM	0	8	6	1	2	0	0	8	0	1	0	0	7	3	0	0	4	0	0	1
6:30 AM - 6:45 AM	0	3	1	0	0	0	0	7	0	1	0	0	5	4	2	0	3	0	0	0
6:45 AM - 7:00 AM	0	1	5	2	2	0	2	15	0	0	0	0	12	2	0	0	12	1	0	0
7:00 AM - 7:15 AM	0	3	5	0	0	0	0	7	0	0	0	2	8	3	2	0	3	21	0	1
7:15 AM - 7:30 AM	0	4	9	1	1	0	1	9	1	4	0	0	8	4	2	0	3	25	2	1
7:30 AM - 7:45 AM	0	3	2	0	1	0	0	15	0	1	0	0	8	10	0	0	5	23	0	1
7:45 AM - 8:00 AM	0	5	9	0	3	0	0	20	1	0	0	1	22	9	3	0	9	25	1	1
8:00 AM - 8:15 AM	0	4	6	2	1	0	0	10	0	2	0	0	17	5	1	0	4	12	0	1
8:15 AM - 8:30 AM	0	2	10	3	0	0	0	7	0	3	0	0	15	4	0	0	2	7	2	1
8:30 AM - 8:45 AM	0	1	10	2	4	0	0	4	1	0	0	0	3	2	1	0	0	15	4	1
8:45 AM - 9:00 AM	0	2	9	0	1	0	3	7	1	6	0	0	5	2	0	0	1	6	2	1
9:00 AM - 9:15 AM	0	0	12	1	6	0	0	0	0	0	0	0	8	1	1	0	0	2	0	1
9:15 AM - 9:30 AM	0	1	5	0	0	0	0	9	0	4	0	0	5	0	0	0	2	1	0	0
9:30 AM - 9:45 AM	0	0	6	0	3	0	0	7	1	4	0	1	17	4	5	0	2	1	0	0
9:45 AM - 10:00 AM	0	4	6	0	2	0	0	10	1	3	0	0	5	6	3	0	3	2	0	0
10:00 AM - 10:15 AM	0	1	8	4	4	0	1	3	1	1	0	1	3	2	1	0	0	1	0	0
10:15 AM - 10:30 AM	0	1	6	1	3	0	1	5	0	2	0	0	2	0	0	0	1	1	0	2
10:30 AM - 10:45 AM	0	1	5	1	1	0	1	6	0	0	0	0	6	3	1	0	2	2	0	0
10:45 AM - 11:00 AM	0	2	11	0	3	0	3	6	0	2	0	0	6	0	0	0	3	1	0	0
11:00 AM - 11:15 AM	0	0	5	0	1	0	0	8	1	0	0	1	17	4	0	0	0	3	0	1
11:15 AM - 11:30 AM	0	2	4	3	3	0	0	2	0	2	0	0	5	2	1	0	1	2	0	1
11:30 AM - 11:45 AM	0	1	3	3	1	0	0	6	0	2	0	0	5	1	0	0	1	3	0	3
11:45 AM - 12:00 PM	0	1	2	1	1	0	1	5	0	3	0	0	8	2	2	0	2	1	0	0
12:00 PM - 12:15 PM	0	0	5	3	1	0	1	1	0	1	0	1	8	3	0	0	0	2	0	1
12:15 PM - 12:30 PM	0	0	7	0	3	0	1	7	0	1	0	1	4	5	3	0	3	0	0	0
12:30 PM - 12:45 PM	0	4	8	0	1	0	0	4	1	1	0	1	15	3	1	0	2	1	0	0
12:45 PM - 1:00 PM	0	3	9	2	3	0	1	4	0	2	0	0	13	3	0	0	2	1	0	1
1:00 PM - 1:15 PM	0	2	11	1	5	0	0	4	0	1	0	0	12	4	1	0	1	5	0	1
1:15 PM - 1:30 PM	0	2	12	3	3	0	0	3	0	3	0	1	11	5	1	0	0	2	0	1
1:30 PM - 1:45 PM	0	5	15	2	1	0	1	7	0	0	0	0	12	2	0	0	4	1	0	0
1:45 PM - 2:00 PM	0	0	8	3	1	0	1	5	0	1	0	0	15	3	0	0	4	1	0	1
2:00 PM - 2:15 PM	0	3	11	1	0	0	4	6	0	3	0	2	9	4	3	0	3	2	0	0
2:15 PM - 2:30 PM	0	0	8	1	1	0	1	5	0	2	0	0	11	2	0	0	0	3	0	1
2:30 PM - 2:45 PM	0	5	20	2	0	0	0	5	2	0	0	0	14	2	0	0	4	2	0	1
2:45 PM - 3:00 PM	0	3	13	2	2	0	0	3	0	0	0	0	19	4	1	0	2	4	0	2
3:00 PM - 3:15 PM	0	5	12	4	2	0	4	8	2	1	0	0	16	6	0	0	1	2	0	1
3:15 PM - 3:30 PM	0	0	11	2	3	0	0	7	1	1	0	0	22	7	0	0	2	4	0	2
3:30 PM - 3:45 PM	0	4	18	1	0	0	1	13	3	2	0	0	30	11	0	0	2	2	0	2
3:45 PM - 4:00 PM	0	1	14	1	1	0	1	4	1	1	0	1	25	3	0	0	1	1	0	0
4:00 PM - 4:15 PM	0	2	14	2	0	0	1	4	0	0	0	0	18	6	0	0	3	3	0	1
4:15 PM - 4:30 PM	0	6	11	6	1	0	0	5	0	0	0	0	21	6	1	0	3	7	1	0
4:30 PM - 4:45 PM	0	3	19	0	0	0	0	1	0	0	0	0	23	5	0	0	3	6	1	1
4:45 PM - 5:00 PM	0	1	5	0	0	0	2	7	0	0	0	0	20	4	2	0	1	12	0	0
5:00 PM - 5:15 PM	0	4	19	1	1	0	0	1	1	1	0	1	21	5	1	0	1	8	1	1
5:15 PM - 5:30 PM	0	2	9	3	0	0	0	6	0	0	0	0	21	3	0	0	1	7	0	0
5:30 PM - 5:45 PM	0	1	9	3	1	0	1	1	0	0	0	0	23	2	0	0	1	7	1	0
5:45 PM - 6:00 PM	0	3	4	1	0	0	0	2	0	0	0	0	33	3	2	0	0	8	0	1
6:00 PM - 6:15 PM	0	1	4	1	0	0	0	1	0	0	0	0	18	2	1	1	1	4	0	1
6:15 PM - 6:30 PM	0	1	4	0	0	0	1	2	0	0	0	0	19	2	0	0	0	6	0	0
6:30 PM - 6:45 PM	0	1	5	0	0	0	1	5	0	1	0	0	7	2	0	0	0	6	0	0
6:45 PM - 7:00 PM	0	2	4	0	0	0	0	1	0	0	0	0	14	1	0	0	0	8	1	1
7:00 PM - 7:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	8	2	1	0	0	4	0	1
7:15 PM - 7:30 PM	0	0	3	2	0	0	0	2	0	0	0	0	7	2	0	0	0	6	0	0
7:30 PM - 7:45 PM	0	0	1	0	0	0	0	2	0	0	0	0	11	0	0	0	2	4	0	0
7:45 PM - 8:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	5	1	0	0	0	7	0	1
TOTAL	0	120	443	76	76	0	36	304	19	64	0	14	710	187	43	1	112	291	16	39

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:15 AM - 8:15 AM	0	16	26	3	6	0	1	54	2	7	0	1	55	28	6	0	21	85	3	4
3:30 PM - 4:30 PM	0	13	57	10	2	0	3	26	4	3	0	1	94	26	1	0	9	13	1	3

	PHF	Trucks
AM	0.723	7.8%
PM	0.756	3.5%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Shirk St @ Ave 320 **LATITUDE** 36.3709

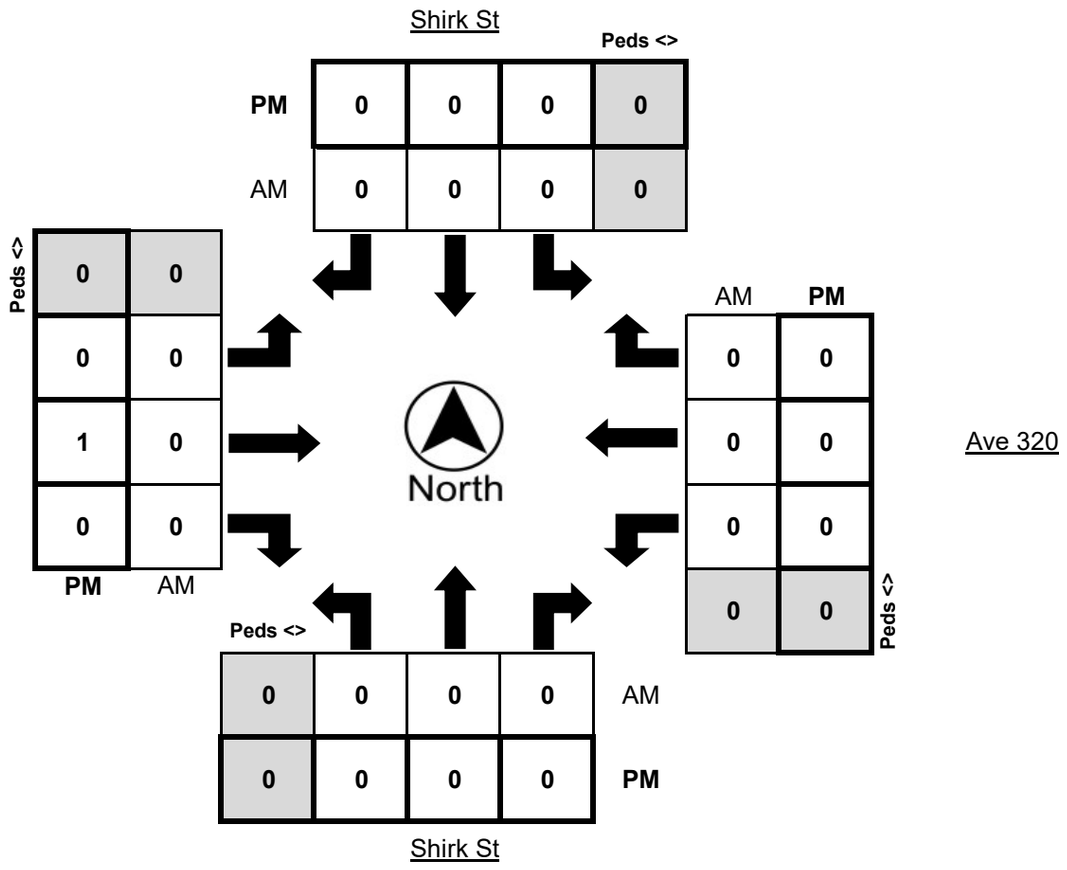
COUNTY Tulare **LONGITUDE** -119.3679

COLLECTION DATE Wednesday, May 25, 2022 **WEATHER** Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	1	0



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

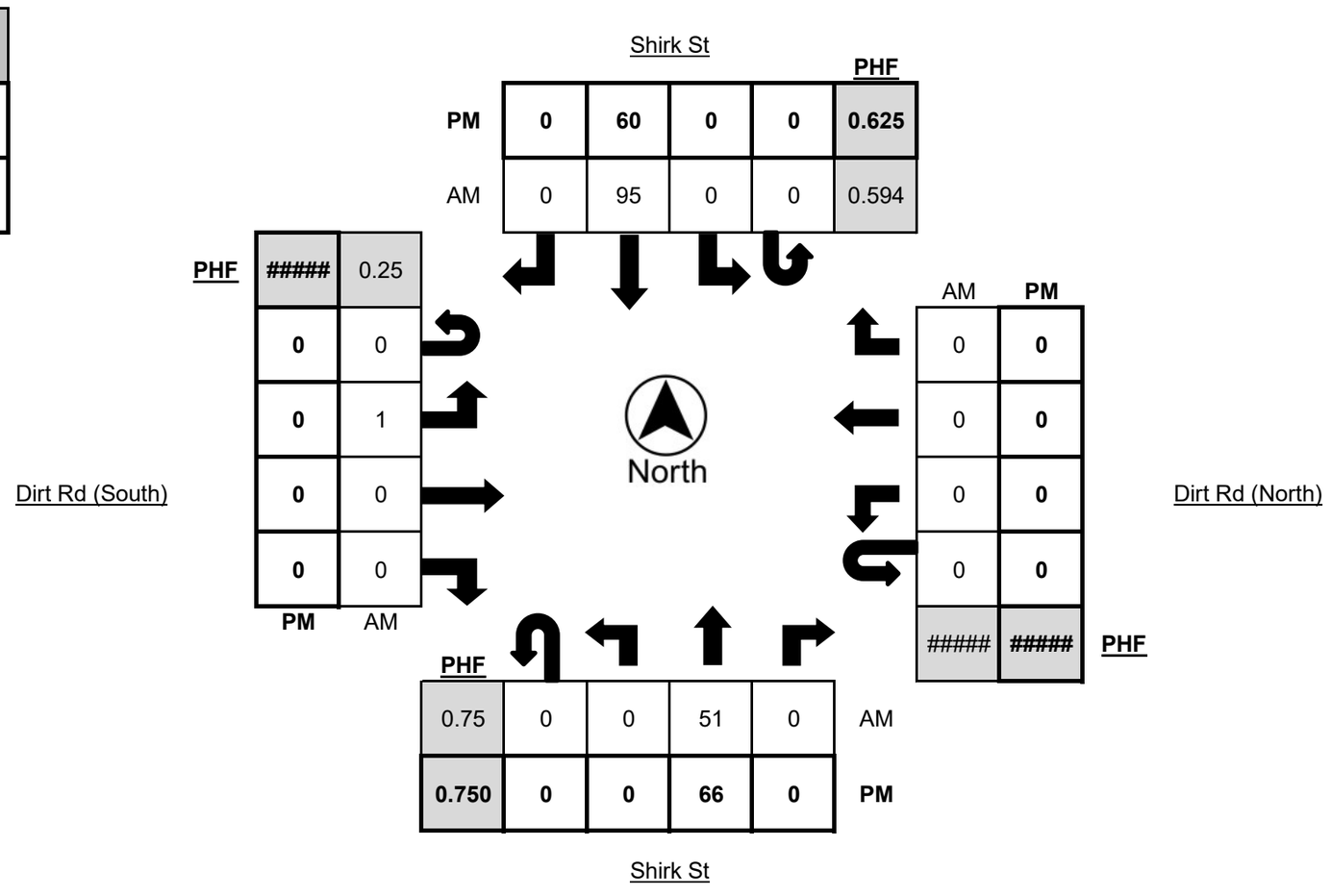
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Shirk St @ Dirt Rd
LATITUDE 36.3624
COUNTY Tulare
LONGITUDE -119.3678
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	0	11	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	12	0	2	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	7	0	2	0	0	12	0	1	0	1	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	1	0	3	0	1	0	0	30	0	2	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	10	0	2	0	0	19	0	2	0	1	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	16	0	3	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	8	0	1	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	17	0	1	0	0	40	0	2	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	8	0	1	0	0	16	0	3	0	0	0	0	0	0	1	0	0	0
8:15 AM - 8:30 AM	0	0	9	0	1	0	0	15	0	3	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	11	0	5	0	0	15	0	3	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	14	0	4	0	0	9	0	3	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	7	0	0	0	0	11	0	5	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	9	0	3	0	0	12	0	3	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	9	0	3	0	0	10	0	3	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	1	16	0	3	0	0	13	0	2	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	10	0	0	0	0	9	0	2	0	0	0	1	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	11	0	0	0	0	13	0	2	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	8	0	1	0	0	12	0	2	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	6	0	2	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	4	0	2	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	8	0	2	0	0	9	0	3	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	12	0	4	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	11	0	2	0	0	8	0	2	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	9	0	2	0	0	8	0	4	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	7	0	1	0	0	7	0	2	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	15	0	6	0	0	13	0	4	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	12	0	2	0	1	11	0	4	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	6	0	0	0	0	13	0	2	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	10	0	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	15	0	0	0	0	7	0	3	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	8	0	0	0	0	16	0	1	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	22	0	1	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	12	0	2	0	0	11	0	2	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	21	0	1	0	0	12	0	1	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	11	0	2	0	0	24	0	2	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	13	0	2	0	0	9	0	2	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	14	0	2	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	19	0	1	0	0	17	0	2	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	16	0	0	0	0	8	0	4	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	18	0	1	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	12	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	20	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	15	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	22	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	13	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	10	0	0	0	0	14	0	4	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	6	0	0	0	0	11	0	2	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	12	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	6	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	6	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	5	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**1**	**1**	**613**	**0**	**73**	**0**	**1**	**614**	**0**	**86**	**0**	**2**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:00 AM - 8:00 AM	0	0	51	0	7	0	0	95	0	4	0	1	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	66	0	6	0	0	60	0	5	0	0	0	0	0	0	0	0	0	0

	PHF	Trucks
AM	0.645	7.5%
PM	0.900	8.7%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

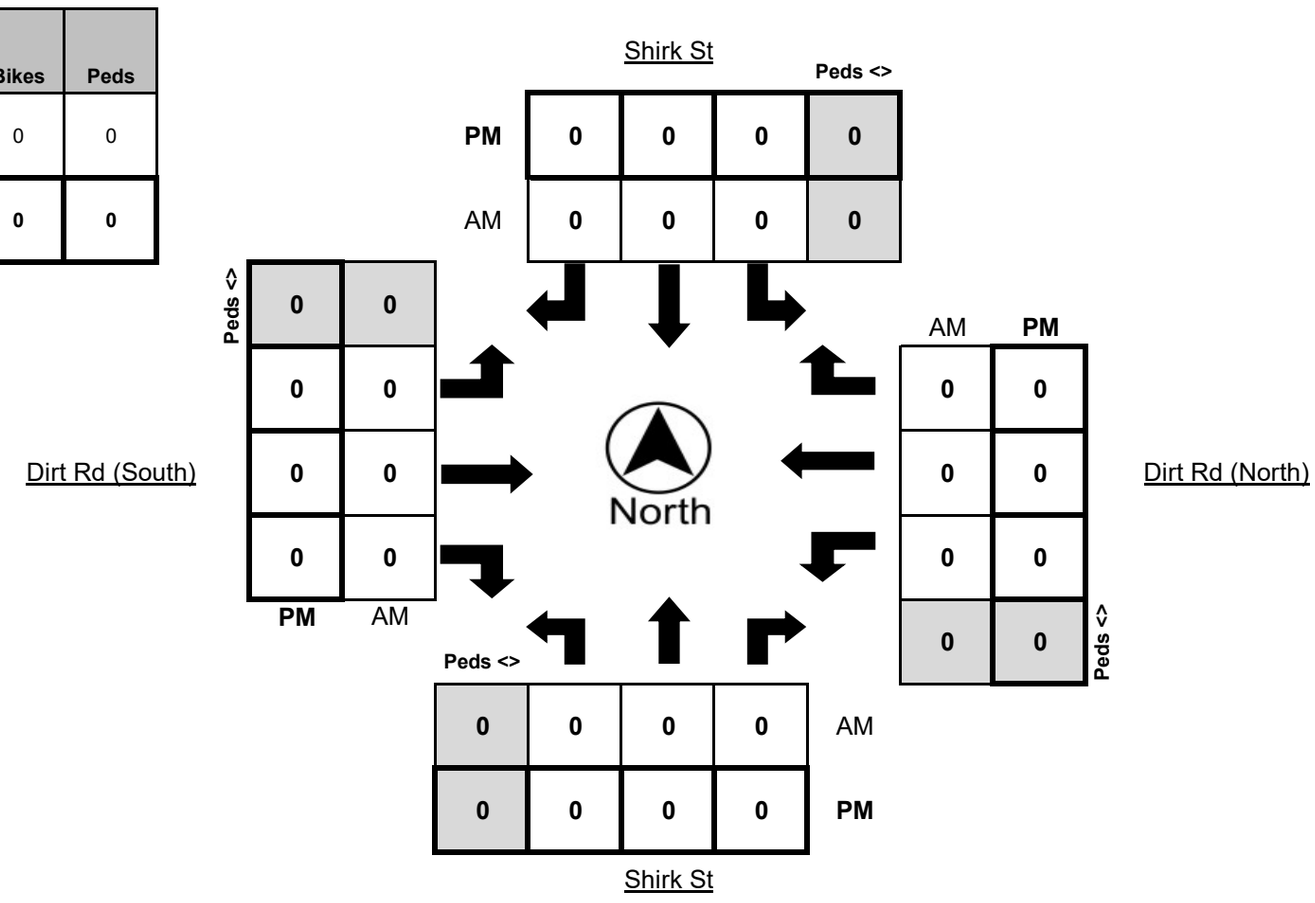
Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Shirk St @ Dirt Rd
LATITUDE 36.3624
COUNTY Tulare
LONGITUDE -119.3678
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

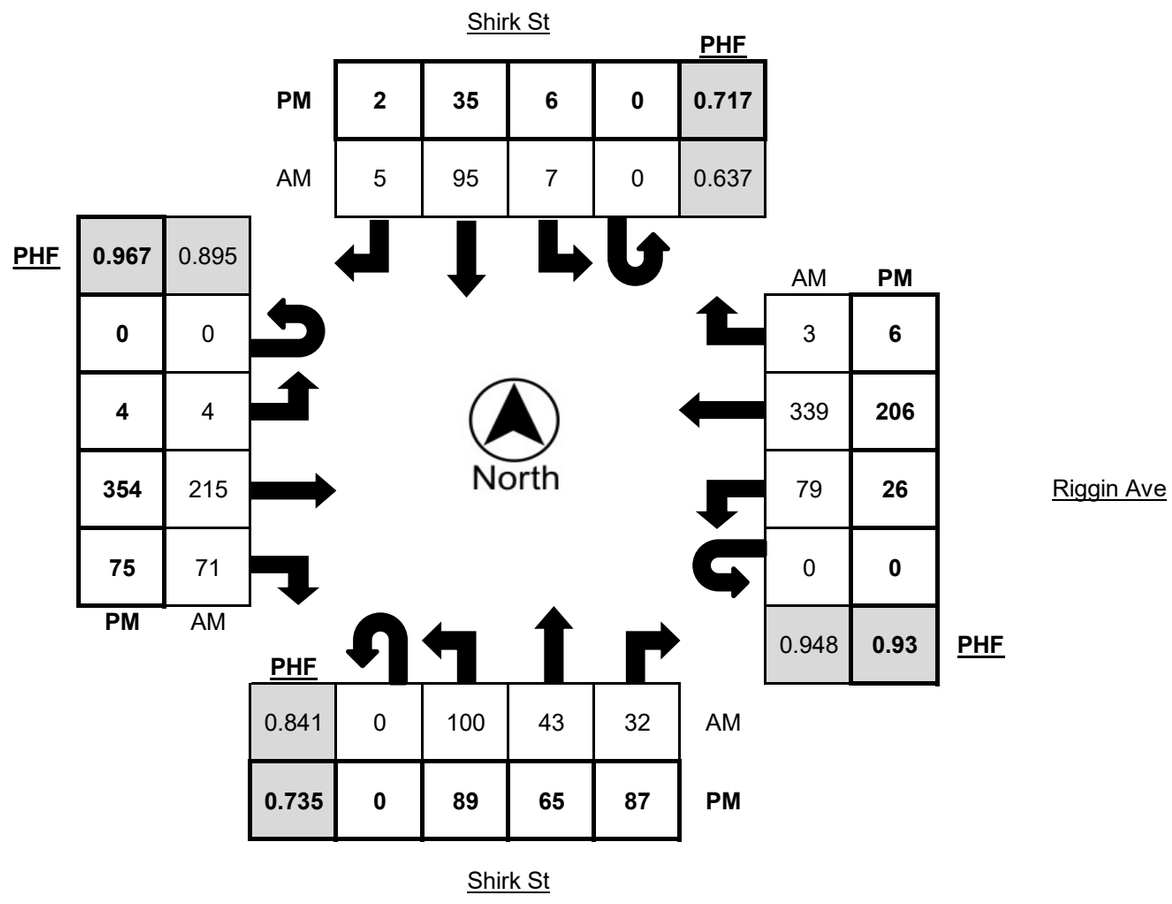
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Shirk Rd @ Riggin Ave
LATITUDE 36.3564
COUNTY Tulare
LONGITUDE -119.3678
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
6:00 AM - 6:15 AM	0	12	12	3	5	0	0	7	0	1	0	1	29	9	3	0	11	65	0	0
6:15 AM - 6:30 AM	0	19	12	1	2	0	0	12	0	0	0	0	24	6	1	0	8	61	1	2
6:30 AM - 6:45 AM	0	25	4	4	4	0	0	14	1	3	0	1	22	5	3	0	11	59	1	1
6:45 AM - 7:00 AM	0	42	6	6	4	0	0	24	5	0	0	1	37	18	4	0	23	64	1	1
7:00 AM - 7:15 AM	0	32	5	2	3	0	1	9	3	0	0	0	43	8	4	0	12	63	2	3
7:15 AM - 7:30 AM	0	26	12	7	4	0	1	11	1	1	0	1	30	9	6	0	11	90	1	3
7:30 AM - 7:45 AM	0	23	5	8	4	0	1	26	2	3	0	1	47	16	2	0	15	89	0	2
7:45 AM - 8:00 AM	0	31	13	2	6	0	1	40	1	1	0	1	52	23	4	0	37	74	0	2
8:00 AM - 8:15 AM	0	24	14	14	3	0	3	15	1	3	0	0	59	22	5	0	22	82	1	2
8:15 AM - 8:30 AM	0	22	11	8	3	0	2	14	1	5	0	2	57	10	4	0	5	94	2	2
8:30 AM - 8:45 AM	0	15	11	8	8	0	1	5	0	1	0	2	31	15	2	0	11	62	0	4
8:45 AM - 9:00 AM	0	15	10	7	7	0	0	8	2	5	0	1	35	13	8	0	8	50	1	5
9:00 AM - 9:15 AM	0	5	8	4	3	0	0	1	0	1	0	2	29	12	4	0	6	51	2	1
9:15 AM - 9:30 AM	0	10	5	5	1	0	0	9	1	3	0	0	41	7	5	0	8	35	1	3
9:30 AM - 9:45 AM	0	19	6	6	7	0	0	11	1	6	0	2	44	10	7	0	4	41	1	4
9:45 AM - 10:00 AM	0	7	6	8	3	0	0	18	1	4	0	1	47	12	7	0	10	32	1	2
10:00 AM - 10:15 AM	0	22	6	9	6	0	1	4	1	2	0	2	48	10	3	0	6	37	5	1
10:15 AM - 10:30 AM	0	11	7	13	4	0	1	6	2	1	0	3	45	11	11	0	8	36	0	0
10:30 AM - 10:45 AM	0	15	2	7	5	0	2	7	0	3	0	1	42	17	5	0	5	48	1	1
10:45 AM - 11:00 AM	0	21	11	8	7	0	0	6	2	0	0	1	42	7	4	0	6	40	1	2
11:00 AM - 11:15 AM	0	10	3	5	5	0	0	12	1	1	0	1	41	13	2	0	10	40	1	4
11:15 AM - 11:30 AM	0	17	7	10	10	0	1	3	1	2	0	0	52	8	6	0	7	54	0	2
11:30 AM - 11:45 AM	0	13	4	9	7	0	1	6	1	3	0	3	48	12	0	0	9	31	1	1
11:45 AM - 12:00 PM	0	14	5	14	3	0	2	7	0	2	0	1	46	16	5	0	12	46	0	2
12:00 PM - 12:15 PM	0	17	8	15	6	0	0	4	1	2	0	2	53	11	3	0	8	44	0	0
12:15 PM - 12:30 PM	0	10	5	12	4	0	2	10	0	0	0	2	45	13	8	0	11	39	0	1
12:30 PM - 12:45 PM	0	11	12	7	3	0	1	9	1	4	0	0	60	22	4	0	9	41	3	1
12:45 PM - 1:00 PM	0	14	8	5	6	0	0	9	0	2	0	2	36	14	3	0	15	47	1	5
1:00 PM - 1:15 PM	0	19	13	13	9	0	2	8	0	2	0	1	55	11	3	0	15	46	4	3
1:15 PM - 1:30 PM	0	8	8	9	2	0	0	6	0	3	0	3	63	16	3	0	11	57	3	3
1:30 PM - 1:45 PM	0	16	18	12	5	0	0	9	0	0	0	2	107	14	2	0	11	65	0	6
1:45 PM - 2:00 PM	0	20	14	5	3	0	0	13	2	1	0	1	74	17	4	0	8	64	1	2
2:00 PM - 2:15 PM	0	14	12	19	1	0	1	9	0	1	0	1	75	11	3	0	15	42	1	3
2:15 PM - 2:30 PM	0	22	10	13	3	0	0	8	0	1	0	1	75	10	5	0	10	49	1	2
2:30 PM - 2:45 PM	0	15	27	17	3	0	2	8	1	1	0	1	62	25	1	0	6	44	0	0
2:45 PM - 3:00 PM	0	19	13	10	7	0	1	7	0	1	0	1	92	13	5	0	11	43	1	3
3:00 PM - 3:15 PM	0	14	16	8	6	0	2	7	0	0	0	3	86	31	4	0	10	50	2	1
3:15 PM - 3:30 PM	0	12	10	13	2	0	2	16	1	1	0	1	77	14	7	0	13	66	2	7
3:30 PM - 3:45 PM	0	29	24	29	2	0	2	22	0	1	0	1	70	17	4	0	9	52	0	2
3:45 PM - 4:00 PM	0	15	10	13	2	0	1	10	0	1	0	3	74	22	6	0	13	71	2	3
4:00 PM - 4:15 PM	0	20	19	26	2	0	2	10	0	1	0	1	86	13	3	0	8	43	0	2
4:15 PM - 4:30 PM	0	10	18	14	2	0	2	13	0	0	0	2	84	23	6	0	8	51	1	0
4:30 PM - 4:45 PM	0	31	21	30	5	0	0	9	0	0	0	1	90	21	2	0	6	54	0	2
4:45 PM - 5:00 PM	0	27	4	17	1	0	3	7	2	0	0	1	86	19	1	0	7	46	1	1
5:00 PM - 5:15 PM	0	21	22	26	3	0	1	6	0	0	0	0	94	12	0	0	5	55	4	6
5:15 PM - 5:30 PM	0	14	10	15	1	0	2	9	1	1	0	2	97	21	2	0	7	40	1	3
5:30 PM - 5:45 PM	0	21	10	17	4	0	0	3	1	0	0	0	95	19	2	0	7	37	1	2
5:45 PM - 6:00 PM	0	22	7	10	1	0	2	2	0	0	0	0	79	22	4	0	7	54	0	0
6:00 PM - 6:15 PM	0	18	5	9	3	0	1	2	1	2	0	2	97	19	2	0	7	36	0	0
6:15 PM - 6:30 PM	0	27	5	8	2	0	2	2	1	0	0	0	67	21	4	0	11	43	0	4
6:30 PM - 6:45 PM	0	10	6	9	3	0	1	4	1	0	0	0	53	10	0	0	4	31	1	1
6:45 PM - 7:00 PM	0	5	3	7	0	0	0	2	0	0	0	0	48	8	1	0	1	43	1	0
7:00 PM - 7:15 PM	0	8	2	3	4	0	0	1	0	0	0	0	52	9	1	0	5	39	0	1
7:15 PM - 7:30 PM	0	5	3	4	1	0	0	4	0	0	0	1	44	7	1	0	4	32	0	0
7:30 PM - 7:45 PM	0	6	4	4	2	0	0	2	2	0	0	1	45	1	0	0	3	29	1	2
7:45 PM - 8:00 PM	0	2	1	4	0	0	1	0	0	0	0	1	46	8	1	0	4	37	1	3
TOTAL	**0**	**952**	**533**	**571**	**212**	**0**	**51**	**506**	**43**	**76**	**0**	**65**	**3258**	**783**	**200**	**0**	**534**	**2834**	**57**	**119**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	100	43	32	16	0	7	95	5	12	0	4	215	71	15	0	79	339	3	8
4:15 PM - 5:15 PM	0	89	65	87	11	0	6	35	2	0	0	4	354	75	9	0	26	206	6	9

	PHF	**Trucks**
AM	0.903	5.1%
PM	0.908	3.0%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

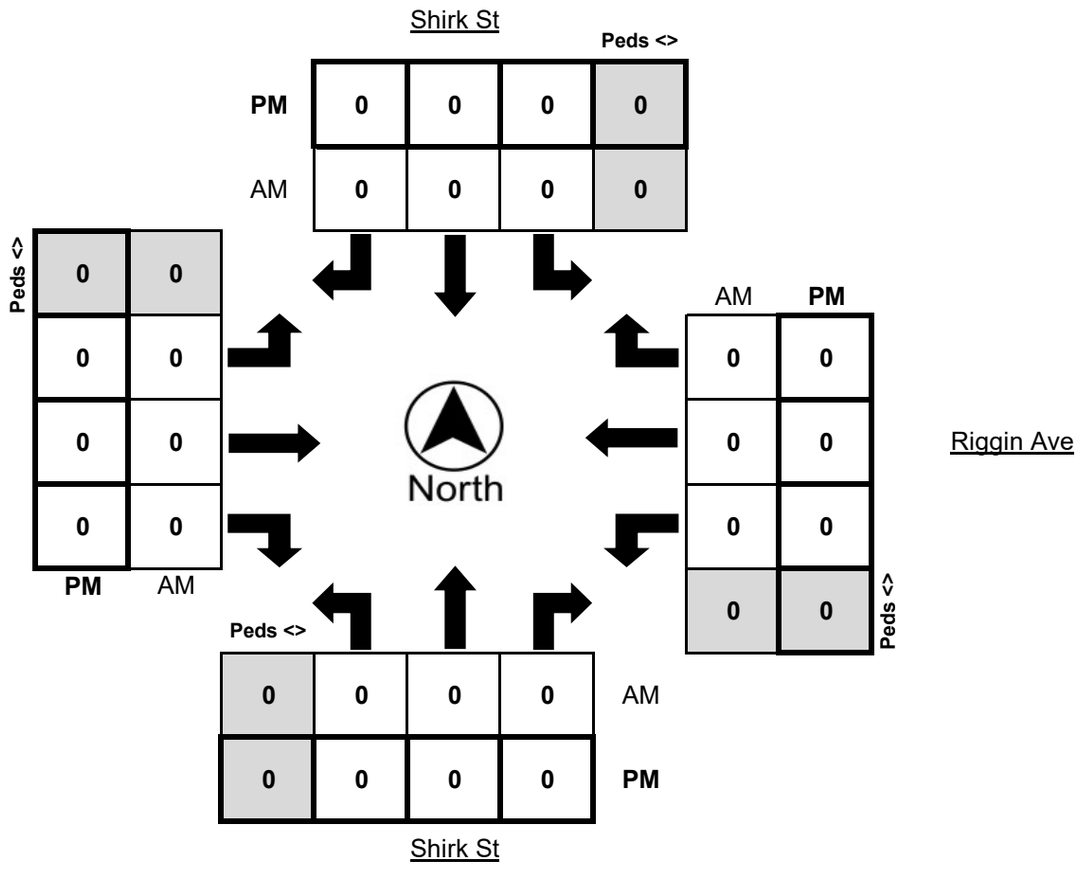
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Shirk Rd @ Riggin Ave
LATITUDE 36.3564
COUNTY Tulare
LONGITUDE -119.3678
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

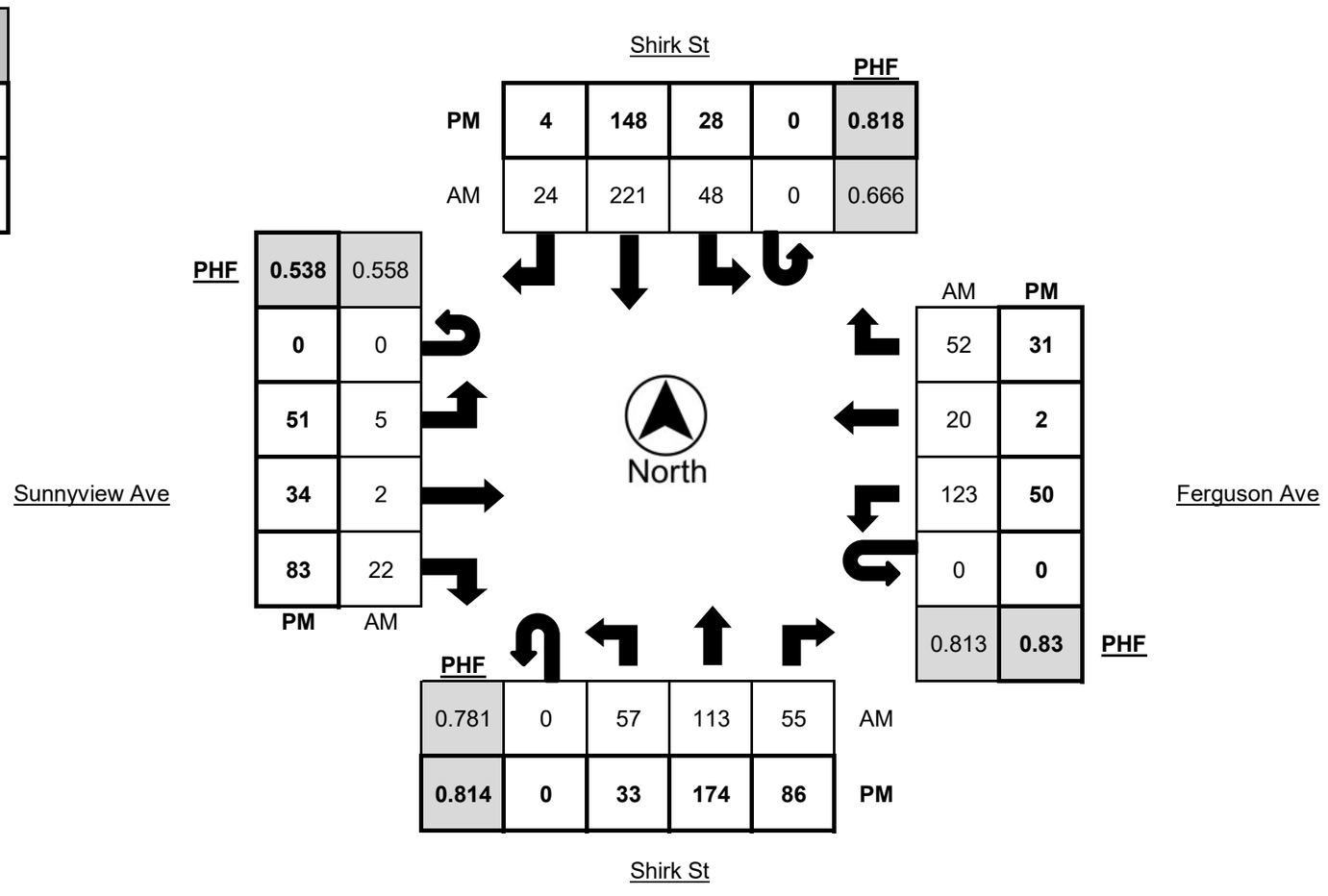
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Shirk Rd @ Ferguson Ave / Sunnyview Ave
LATITUDE 36.3510
COUNTY Tulare
LONGITUDE -119.3677
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
6:00 AM - 6:15 AM	0	10	16	7	2	0	1	21	10	2	0	5	0	6	3	0	6	3	8	0
6:15 AM - 6:30 AM	0	9	17	4	1	0	4	24	5	1	0	1	1	8	1	0	11	5	13	0
6:30 AM - 6:45 AM	0	19	18	3	3	0	0	32	1	3	0	1	0	9	2	0	6	12	14	2
6:45 AM - 7:00 AM	0	25	28	5	4	0	1	46	21	2	0	3	2	3	0	0	23	21	18	2
7:00 AM - 7:15 AM	0	17	23	8	4	0	2	35	8	1	0	0	3	3	1	0	19	6	17	1
7:15 AM - 7:30 AM	0	6	29	15	3	0	3	32	4	4	0	0	0	4	2	0	33	6	9	1
7:30 AM - 7:45 AM	0	12	22	8	3	0	10	55	2	2	0	2	0	4	2	0	32	5	8	1
7:45 AM - 8:00 AM	0	21	27	13	7	0	16	83	11	4	0	1	0	5	1	0	35	6	19	1
8:00 AM - 8:15 AM	0	18	35	19	4	0	19	51	7	3	0	2	2	9	0	0	23	3	16	1
8:15 AM - 8:30 AM	0	7	26	14	6	0	6	29	3	6	0	2	1	5	4	0	20	4	15	0
8:30 AM - 8:45 AM	0	10	22	8	6	0	3	23	8	4	0	3	0	3	2	0	21	0	6	0
8:45 AM - 9:00 AM	0	2	22	8	10	0	2	21	8	9	0	1	1	5	1	0	12	2	8	1
9:00 AM - 9:15 AM	0	5	11	10	4	0	3	19	5	2	0	0	1	8	2	0	10	3	3	1
9:15 AM - 9:30 AM	0	11	17	3	5	0	2	23	2	7	0	1	4	5	2	0	17	3	5	2
9:30 AM - 9:45 AM	0	16	22	7	10	0	5	21	1	10	0	2	12	13	3	0	9	3	10	0
9:45 AM - 10:00 AM	0	18	19	10	1	0	2	35	6	8	0	2	2	7	5	0	13	7	3	2
10:00 AM - 10:15 AM	0	3	17	8	5	0	2	21	0	3	0	9	2	6	6	0	7	4	7	1
10:15 AM - 10:30 AM	0	8	23	5	6	0	2	18	5	7	0	1	2	4	0	1	8	0	4	0
10:30 AM - 10:45 AM	0	7	16	10	6	0	0	21	6	6	0	1	0	10	3	0	7	2	11	1
10:45 AM - 11:00 AM	0	9	28	2	9	0	1	23	4	4	0	3	1	5	4	0	9	28	2	9
11:00 AM - 11:15 AM	0	9	19	12	6	0	4	31	5	3	0	4	6	12	4	0	4	2	4	0
11:15 AM - 11:30 AM	0	6	21	10	10	0	3	17	3	5	0	5	3	11	4	0	5	5	6	2
11:30 AM - 11:45 AM	0	4	18	12	6	0	4	21	5	3	0	5	13	16	3	0	8	0	6	0
11:45 AM - 12:00 PM	0	17	32	5	3	0	6	28	2	5	0	8	8	14	3	0	7	9	7	0
12:00 PM - 12:15 PM	0	9	20	24	7	0	3	15	3	3	0	10	3	18	1	0	12	4	8	0
12:15 PM - 12:30 PM	0	9	23	11	4	0	6	30	9	3	0	3	4	7	3	0	11	5	9	1
12:30 PM - 12:45 PM	0	13	27	9	8	0	6	28	10	7	0	1	4	9	2	0	13	3	4	0
12:45 PM - 1:00 PM	0	8	26	13	7	0	3	34	7	4	0	0	1	9	3	0	16	7	7	1
1:00 PM - 1:15 PM	0	14	27	11	8	0	9	27	4	4	0	10	0	7	2	0	11	6	9	3
1:15 PM - 1:30 PM	0	13	13	11	1	0	5	25	2	4	0	6	4	10	4	0	5	2	10	0
1:30 PM - 1:45 PM	0	2	34	20	4	0	11	32	1	1	0	9	7	17	0	0	10	2	6	1
1:45 PM - 2:00 PM	0	7	35	27	4	0	15	30	3	5	0	3	2	8	2	0	11	2	9	3
2:00 PM - 2:15 PM	0	4	37	28	1	0	18	29	2	1	0	3	3	5	0	0	14	1	7	0
2:15 PM - 2:30 PM	0	7	40	19	5	0	7	24	2	4	0	0	5	9	3	0	16	2	23	3
2:30 PM - 2:45 PM	0	8	49	12	6	0	6	36	1	2	0	10	5	18	1	0	6	2	7	0
2:45 PM - 3:00 PM	0	7	35	10	8	0	5	26	3	4	0	2	6	10	2	0	15	1	5	2
3:00 PM - 3:15 PM	1	7	34	6	6	0	12	34	9	2	0	3	4	11	1	0	14	3	9	3
3:15 PM - 3:30 PM	0	14	25	13	4	0	8	40	1	4	0	5	4	18	2	0	10	1	10	0
3:30 PM - 3:45 PM	0	4	61	25	4	0	7	40	1	2	0	23	17	38	0	0	15	1	9	0
3:45 PM - 4:00 PM	0	6	35	20	2	0	9	44	2	6	0	9	8	7	2	0	14	0	4	1
4:00 PM - 4:15 PM	0	9	53	28	7	0	4	24	0	0	0	14	5	20	3	0	11	0	8	0
4:15 PM - 4:30 PM	0	4	32	21	3	0	9	34	3	3	0	5	4	17	1	0	11	1	8	0
4:30 PM - 4:45 PM	0	6	62	21	6	0	6	31	1	1	0	11	8	28	4	0	12	0	15	1
4:45 PM - 5:00 PM	0	3	40	25	3	0	10	22	4	2	0	3	10	13	1	0	11	1	13	1
5:00 PM - 5:15 PM	0	0	57	29	1	0	6	13	0	0	0	15	8	30	3	0	9	1	5	1
5:15 PM - 5:30 PM	0	3	42	18	1	0	9	30	2	3	0	1	4	7	1	0	18	2	6	0
5:30 PM - 5:45 PM	0	6	48	20	4	0	7	20	2	0	0	6	5	3	1	0	19	1	4	0
5:45 PM - 6:00 PM	0	1	54	23	1	0	9	19	4	3	0	4	4	7	1	0	9	2	6	0
6:00 PM - 6:15 PM	0	3	28	8	4	0	8	22	1	1	0	7	3	5	1	0	13	0	3	0
6:15 PM - 6:30 PM	0	1	27	13	1	0	7	22	3	3	0	3	2	1	1	0	13	0	11	0
6:30 PM - 6:45 PM	0	0	24	14	3	0	6	11	0	0	0	0	2	6	1	0	9	0	4	0
6:45 PM - 7:00 PM	0	2	13	7	2	0	7	8	1	1	0	2	0	2	0	0	11	0	3	0
7:00 PM - 7:15 PM	0	0	8	6	2	0	8	9	1	1	0	2	0	0	1	0	5	1	4	1
7:15 PM - 7:30 PM	0	2	10	10	2	0	2	13	1	1	0	0	0	1	0	1	6	0	6	0
7:30 PM - 7:45 PM	0	0	13	16	1	0	2	9	0	0	0	0	3	1	0	1	5	1	7	1
7:45 PM - 8:00 PM	0	1	10	14	0	0	5	7	1	1	0	1	1	3	0	0	6	0	2	0
TOTAL	**1**	**442**	**1570**	**738**	**244**	**0**	**336**	**1518**	**216**	**180**	**0**	**233**	**200**	**520**	**105**	**3**	**706**	**191**	**460**	**51**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	57	113	55	17	0	48	221	24	13	0	5	2	22	5	0	123	20	52	4
3:15 PM - 4:15 PM	0	33	174	86	17	0	28	148	4	12	0	51	34	83	7	0	50	2	31	1

	PHF	Trucks
AM	0.783	5.3%
PM	0.751	5.1%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

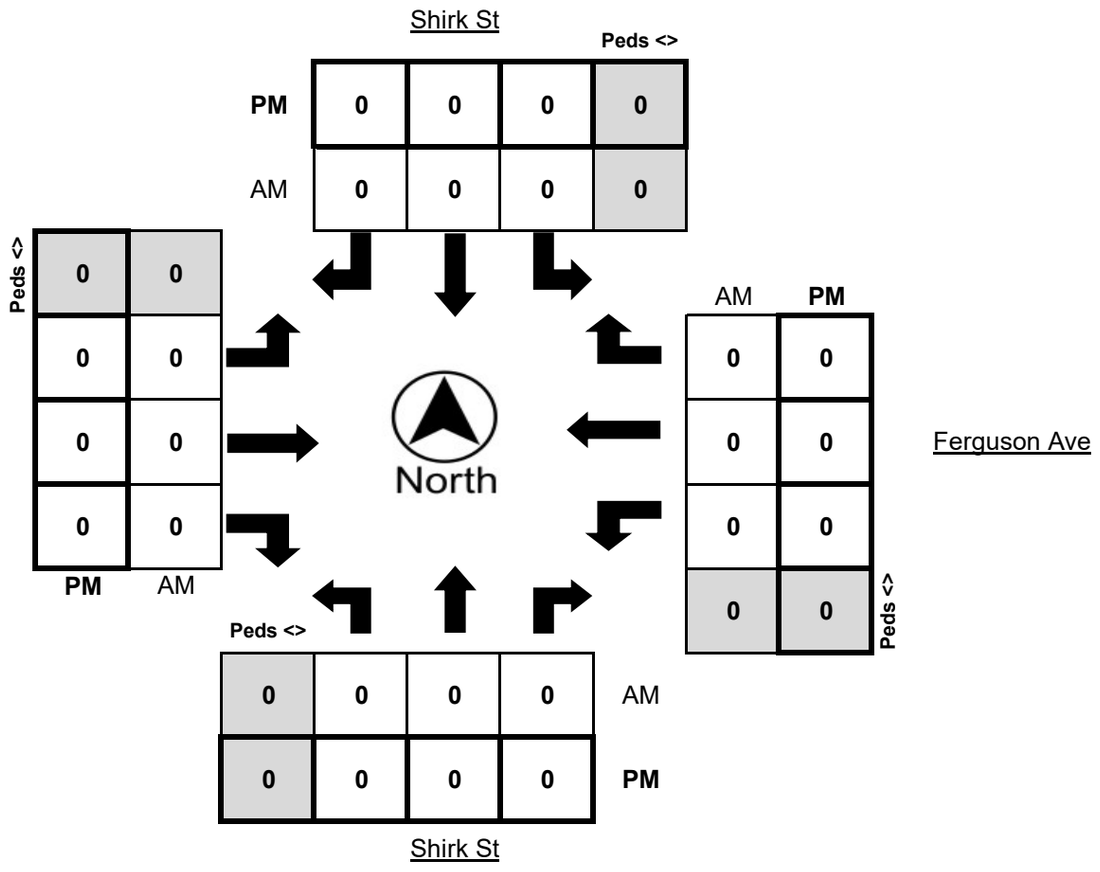
Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Shirk Rd @ Ferguson Ave / Sunnyview Ave
LATITUDE 36.3510
COUNTY Tulare
LONGITUDE -119.3677
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**1**	**2**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

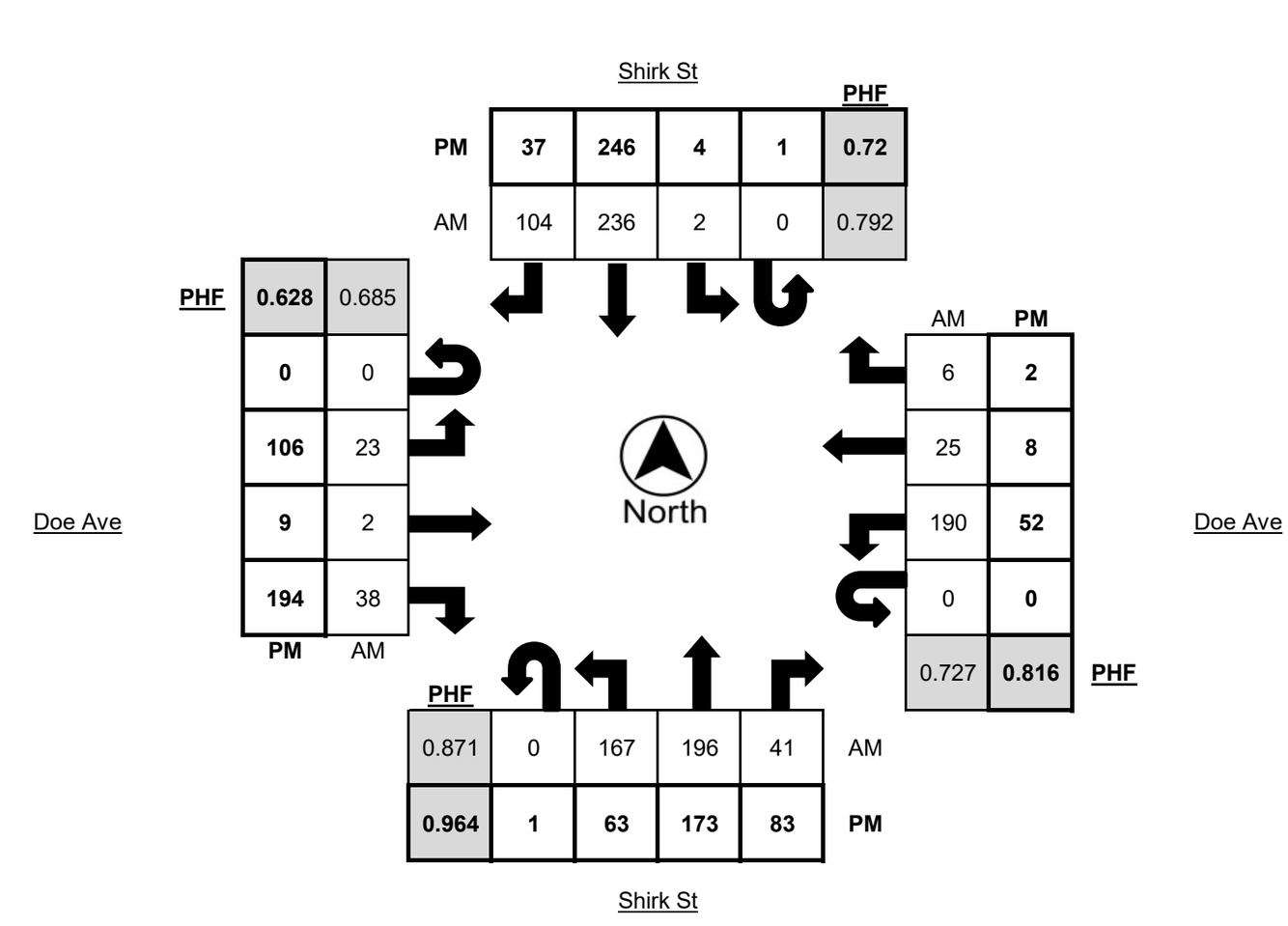
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Shirk Rd @ Doe Ave
LATITUDE 36.3460
COUNTY Tulare
LONGITUDE -119.3677
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
6:00 AM - 6:15 AM	0	23	32	5	5	0	0	0	0	0	0	3	0	6	1	0	12	2	0	0
6:15 AM - 6:30 AM	0	24	21	2	3	0	1	31	9	1	0	3	2	1	1	0	9	3	0	1
6:30 AM - 6:45 AM	0	28	40	4	3	0	1	32	13	5	0	1	0	3	1	0	14	5	1	0
6:45 AM - 7:00 AM	0	60	57	10	4	0	0	34	37	2	0	2	0	1	1	0	9	5	2	0
7:00 AM - 7:15 AM	0	32	43	3	3	0	1	40	11	3	0	1	1	6	0	0	28	3	0	0
7:15 AM - 7:30 AM	0	44	43	2	5	0	0	44	20	5	0	6	0	6	1	0	20	4	2	0
7:30 AM - 7:45 AM	0	44	40	10	4	0	1	64	29	5	0	0	0	8	0	0	50	4	0	1
7:45 AM - 8:00 AM	0	46	53	6	6	0	0	69	39	4	0	6	1	13	3	0	60	13	3	0
8:00 AM - 8:15 AM	0	33	60	23	5	0	1	59	16	2	0	11	1	11	2	0	60	4	1	0
8:15 AM - 8:30 AM	0	30	36	18	8	0	1	42	12	8	0	7	2	13	2	0	22	3	0	0
8:30 AM - 8:45 AM	0	21	35	6	9	0	0	34	12	3	0	5	1	15	5	0	12	0	1	0
8:45 AM - 9:00 AM	0	26	25	5	8	0	0	32	9	7	0	6	0	13	5	0	10	2	2	0
9:00 AM - 9:15 AM	0	14	20	6	5	0	2	24	7	4	0	4	0	16	5	0	15	0	1	0
9:15 AM - 9:30 AM	0	27	47	18	11	0	0	30	10	8	0	6	2	23	6	0	6	1	0	0
9:30 AM - 9:45 AM	0	16	42	6	8	0	1	37	9	11	0	3	1	24	3	0	5	3	3	1
9:45 AM - 10:00 AM	0	19	30	9	3	1	0	47	13	12	0	13	1	20	2	0	9	3	1	0
10:00 AM - 10:15 AM	0	20	23	7	5	0	0	27	3	4	0	5	0	18	2	0	14	0	0	0
10:15 AM - 10:30 AM	0	20	32	7	6	0	0	28	6	1	0	6	0	11	2	0	10	1	0	0
10:30 AM - 10:45 AM	0	15	27	11	5	0	0	31	6	6	0	7	1	14	5	0	7	0	2	0
10:45 AM - 11:00 AM	0	21	35	9	6	0	0	30	7	6	0	4	1	15	4	0	9	0	0	0
11:00 AM - 11:15 AM	0	19	24	14	9	0	1	40	9	4	0	11	2	14	3	0	5	0	2	0
11:15 AM - 11:30 AM	0	13	35	6	9	0	0	30	7	7	0	5	0	20	5	0	11	0	0	1
11:30 AM - 11:45 AM	0	12	27	7	6	0	2	36	10	5	0	10	2	31	5	0	7	1	0	0
11:45 AM - 12:00 PM	0	18	47	16	4	0	0	40	8	7	0	10	4	30	5	0	8	2	0	1
12:00 PM - 12:15 PM	0	23	33	10	6	0	2	41	6	2	0	18	4	43	2	0	10	2	0	0
12:15 PM - 12:30 PM	0	27	37	9	9	0	0	34	12	2	0	4	3	23	2	0	12	2	2	0
12:30 PM - 12:45 PM	0	28	36	14	8	0	1	34	15	6	0	10	3	17	2	0	11	0	0	0
12:45 PM - 1:00 PM	0	29	44	12	8	0	1	41	13	5	0	9	1	18	2	0	12	1	0	1
1:00 PM - 1:15 PM	0	20	41	7	5	0	0	37	8	8	0	8	2	13	3	0	9	2	0	0
1:15 PM - 1:30 PM	0	20	28	8	4	0	1	26	11	3	0	6	0	15	4	0	1	2	0	0
1:30 PM - 1:45 PM	0	22	35	10	5	0	0	46	12	2	0	22	2	52	4	0	11	0	1	1
1:45 PM - 2:00 PM	0	26	54	10	6	0	0	39	9	7	0	13	2	22	2	0	13	0	0	0
2:00 PM - 2:15 PM	0	21	41	7	3	0	0	43	5	0	0	19	2	41	1	0	16	1	4	0
2:15 PM - 2:30 PM	0	11	58	38	6	0	1	40	8	5	0	12	0	16	2	0	23	3	1	0
2:30 PM - 2:45 PM	0	12	46	19	7	0	2	56	5	2	0	19	2	34	6	0	6	1	0	0
2:45 PM - 3:00 PM	0	18	43	13	6	0	0	51	7	6	0	9	1	20	3	0	14	0	0	0
3:00 PM - 3:15 PM	0	14	40	18	7	0	1	46	9	2	0	7	2	32	3	0	9	0	0	1
3:15 PM - 3:30 PM	0	15	47	18	2	0	2	54	13	8	0	9	1	35	2	0	13	2	0	0
3:30 PM - 3:45 PM	1	19	41	19	3	1	1	87	11	2	0	35	3	54	1	0	18	0	1	1
3:45 PM - 4:00 PM	0	17	45	21	3	0	1	54	7	4	0	16	1	32	1	0	11	3	0	0
4:00 PM - 4:15 PM	0	12	40	25	6	0	0	51	6	2	0	46	4	73	1	0	10	3	1	0
4:15 PM - 4:30 PM	0	7	43	18	5	0	1	58	2	2	0	13	2	45	2	0	8	0	1	0
4:30 PM - 4:45 PM	0	8	45	16	5	0	1	79	8	3	0	29	3	59	0	0	4	0	0	0
4:45 PM - 5:00 PM	0	10	53	17	3	0	0	41	5	3	1	13	3	40	2	0	10	3	1	1
5:00 PM - 5:15 PM	0	6	51	23	1	0	1	52	0	4	0	33	5	73	0	0	13	0	2	0
5:15 PM - 5:30 PM	0	8	44	19	2	0	0	53	5	2	0	14	1	27	1	0	16	1	1	0
5:30 PM - 5:45 PM	0	6	52	20	4	0	1	39	4	0	0	22	3	35	1	0	16	1	0	0
5:45 PM - 6:00 PM	0	7	50	12	2	0	0	30	5	1	0	6	1	9	0	0	10	0	0	0
6:00 PM - 6:15 PM	0	10	33	12	4	0	0	36	2	1	0	6	3	9	1	0	4	0	0	0
6:15 PM - 6:30 PM	0	11	38	15	4	0	1	36	1	2	0	3	0	8	0	0	13	1	0	0
6:30 PM - 6:45 PM	0	4	27	11	1	0	0	25	2	1	0	9	2	6	0	0	7	0	0	0
6:45 PM - 7:00 PM	0	3	19	14	2	0	0	22	0	1	0	3	3	6	4	0	6	0	0	0
7:00 PM - 7:15 PM	0	2	15	9	3	0	0	12	1	1	0	3	1	4	0	0	6	0	0	0
7:15 PM - 7:30 PM	0	2	19	14	2	0	1	19	1	1	0	0	0	3	0	0	5	0	0	0
7:30 PM - 7:45 PM	0	4	25	9	1	0	0	12	2	0	0	1	0	7	2	0	8	0	1	0
7:45 PM - 8:00 PM	0	4	21	11	1	0	0	14	3	1	0	5	1	1	0	0	6	0	1	0
TOTAL	**1**	**1051**	**2118**	**688**	**274**	**2**	**31**	**2189**	**500**	**209**	**1**	**557**	**83**	**1204**	**123**	**0**	**743**	**87**	**38**	**10**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	167	196	41	20	0	2	236	104	16	0	23	2	38	6	0	190	25	6	1
3:15 PM - 4:15 PM	1	63	173	83	14	1	4	246	37	16	0	106	9	194	5	0	52	8	2	1

	PHF	Trucks
AM	0.833	4.2%
PM	0.841	3.7%



Metro Traffic Data Inc.
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Hanford, CA 93230

800-975-6938 Phone/Fax
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Turning Movement Report

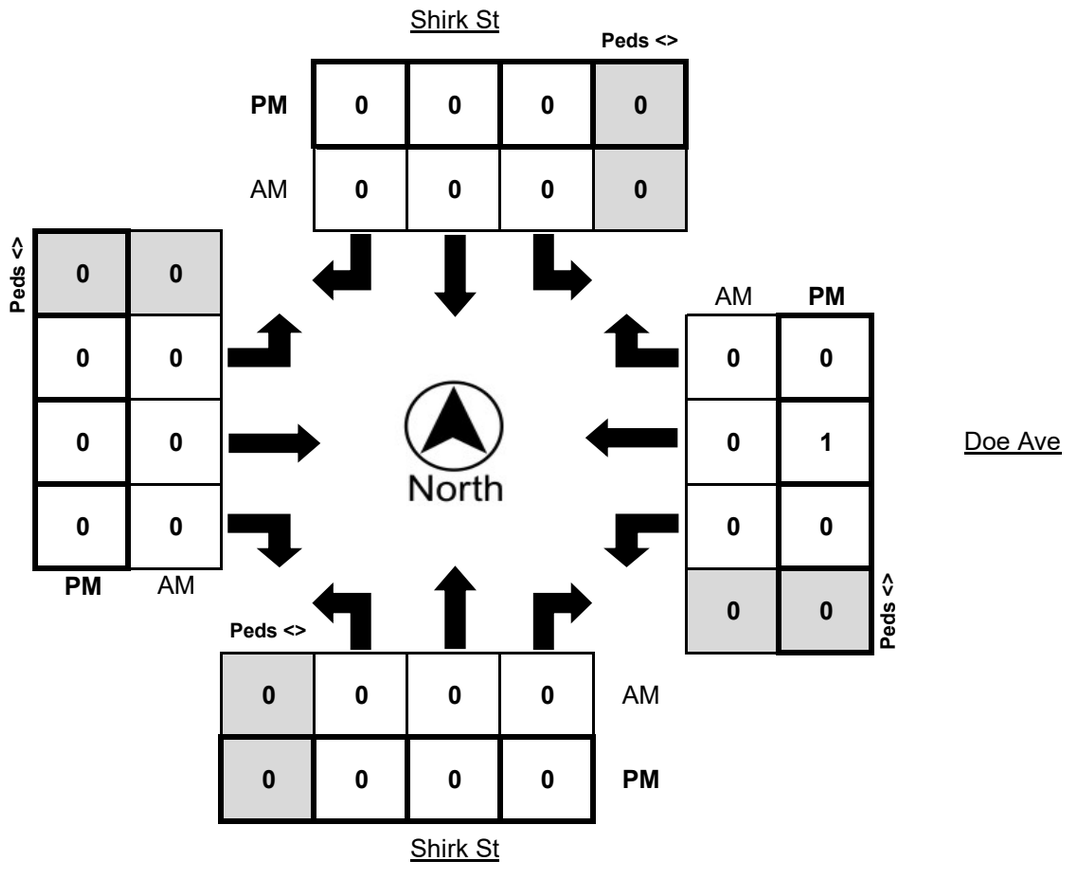
Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Shirk Rd @ Doe Ave
COUNTY Tulare
COLLECTION DATE Wednesday, May 25, 2022
LATITUDE 36.3460
LONGITUDE -119.3677
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:15 AM - 11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**5**	**0**	**1**	**0**	**1**	**0**	**1**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	1	0



Metro Traffic Data Inc.
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Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

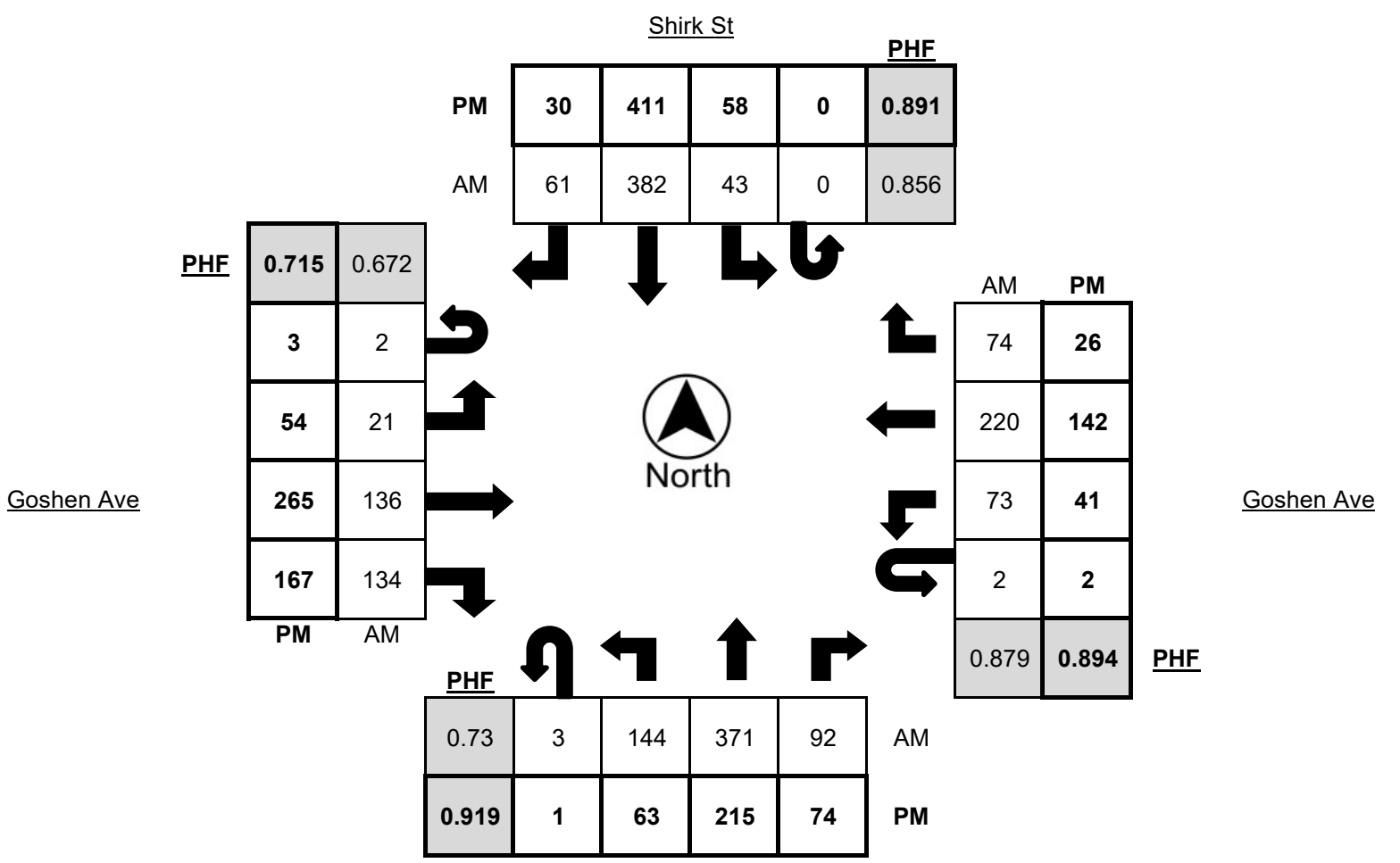
LOCATION Shirk Rd @ Goshen Ave
LATITUDE 36.3419
COUNTY Tulare
LONGITUDE -119.3678
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	14	67	4	4	0	3	61	12	2	0	5	33	17	3	2	17	31	8	2
7:15 AM - 7:30 AM	1	19	75	14	3	0	3	66	9	8	0	4	33	16	3	0	13	48	15	4
7:30 AM - 7:45 AM	0	26	85	14	6	0	5	102	17	6	2	5	26	27	5	1	15	67	13	1
7:45 AM - 8:00 AM	2	46	128	33	8	0	15	108	19	8	0	6	37	31	7	1	19	52	33	0
8:00 AM - 8:15 AM	1	39	78	28	6	0	18	101	14	7	0	7	46	56	9	0	19	57	16	2
8:15 AM - 8:30 AM	0	33	80	17	8	0	5	71	11	5	0	3	27	20	9	0	20	44	12	1
8:30 AM - 8:45 AM	0	18	43	10	10	0	4	48	10	5	0	10	28	26	8	0	14	33	11	2
8:45 AM - 9:00 AM	0	18	47	11	10	0	9	44	10	8	0	5	27	20	1	0	8	31	5	1
TOTAL	**4**	**213**	**603**	**131**	**55**	**0**	**62**	**601**	**102**	**49**	**2**	**45**	**257**	**213**	**45**	**4**	**125**	**363**	**113**	**13**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	1	15	53	14	6	0	18	113	9	6	1	19	85	66	4	1	14	36	8	5
4:15 PM - 4:30 PM	0	16	56	24	8	0	13	97	9	4	0	10	65	31	7	0	11	35	5	2
4:30 PM - 4:45 PM	0	11	51	21	9	0	18	116	3	3	1	13	68	41	2	0	7	42	3	4
4:45 PM - 5:00 PM	0	21	55	15	2	0	9	85	9	7	1	12	47	29	4	1	9	29	10	1
5:00 PM - 5:15 PM	0	15	60	13	4	1	19	114	11	5	0	8	88	44	1	0	6	23	5	1
5:15 PM - 5:30 PM	0	7	67	14	2	0	11	69	12	2	1	5	53	20	4	0	16	39	5	2
5:30 PM - 5:45 PM	0	13	71	27	8	0	9	81	7	2	0	12	51	24	2	0	15	29	2	0
5:45 PM - 6:00 PM	0	8	61	9	6	0	4	43	5	1	0	9	47	16	3	0	10	28	3	1
TOTAL	**1**	**106**	**474**	**137**	**45**	**1**	**101**	**718**	**65**	**30**	**4**	**88**	**504**	**271**	**27**	**2**	**88**	**261**	**41**	**16**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	3	144	371	92	28	0	43	382	61	26	2	21	136	134	30	2	73	220	74	4
4:00 PM - 5:00 PM	1	63	215	74	25	0	58	411	30	20	3	54	265	167	17	2	41	142	26	12

	PHF	Trucks
AM	0.829	5.0%
PM	0.857	4.8%



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Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

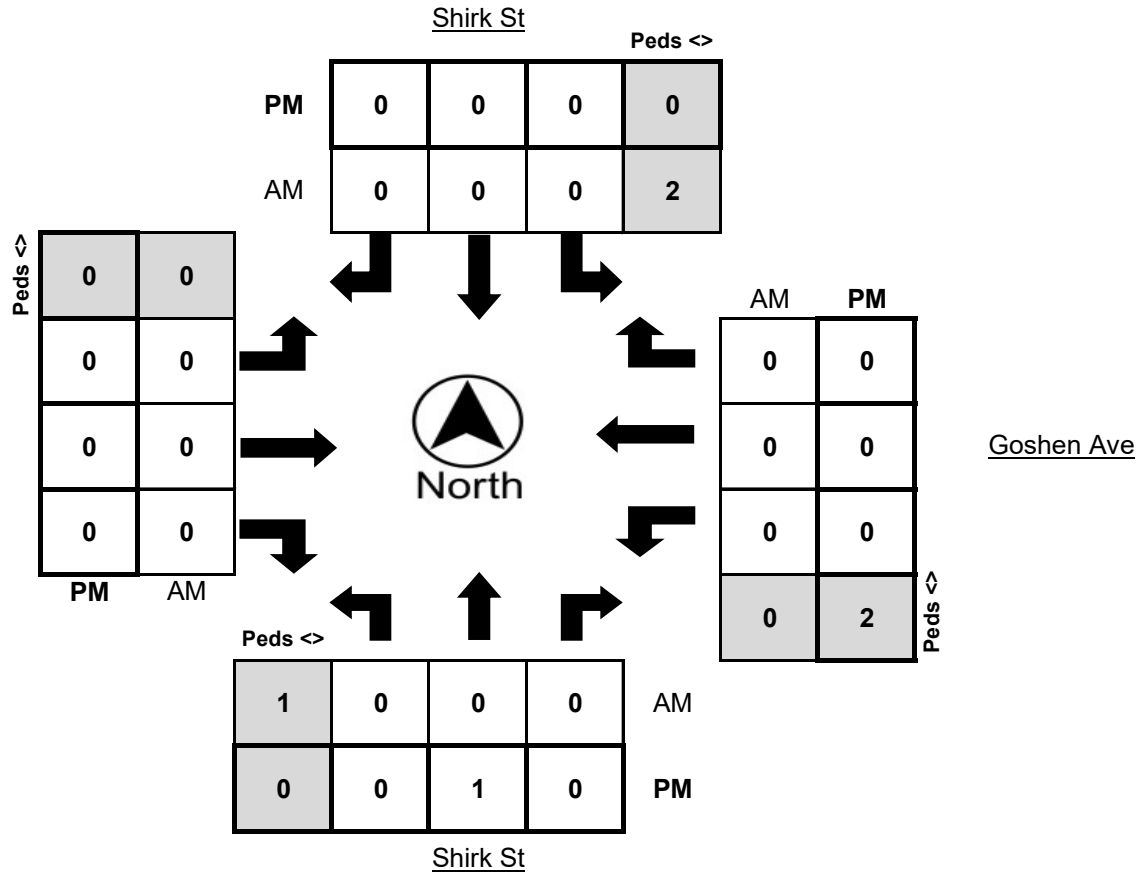
LOCATION Shirk Rd @ Goshen Ave
LATITUDE 36.3419
COUNTY Tulare
LONGITUDE -119.3678
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
4:30 PM - 4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0

	Bikes	Peds
AM Peak Total	0	3
PM Peak Total	1	2



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Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

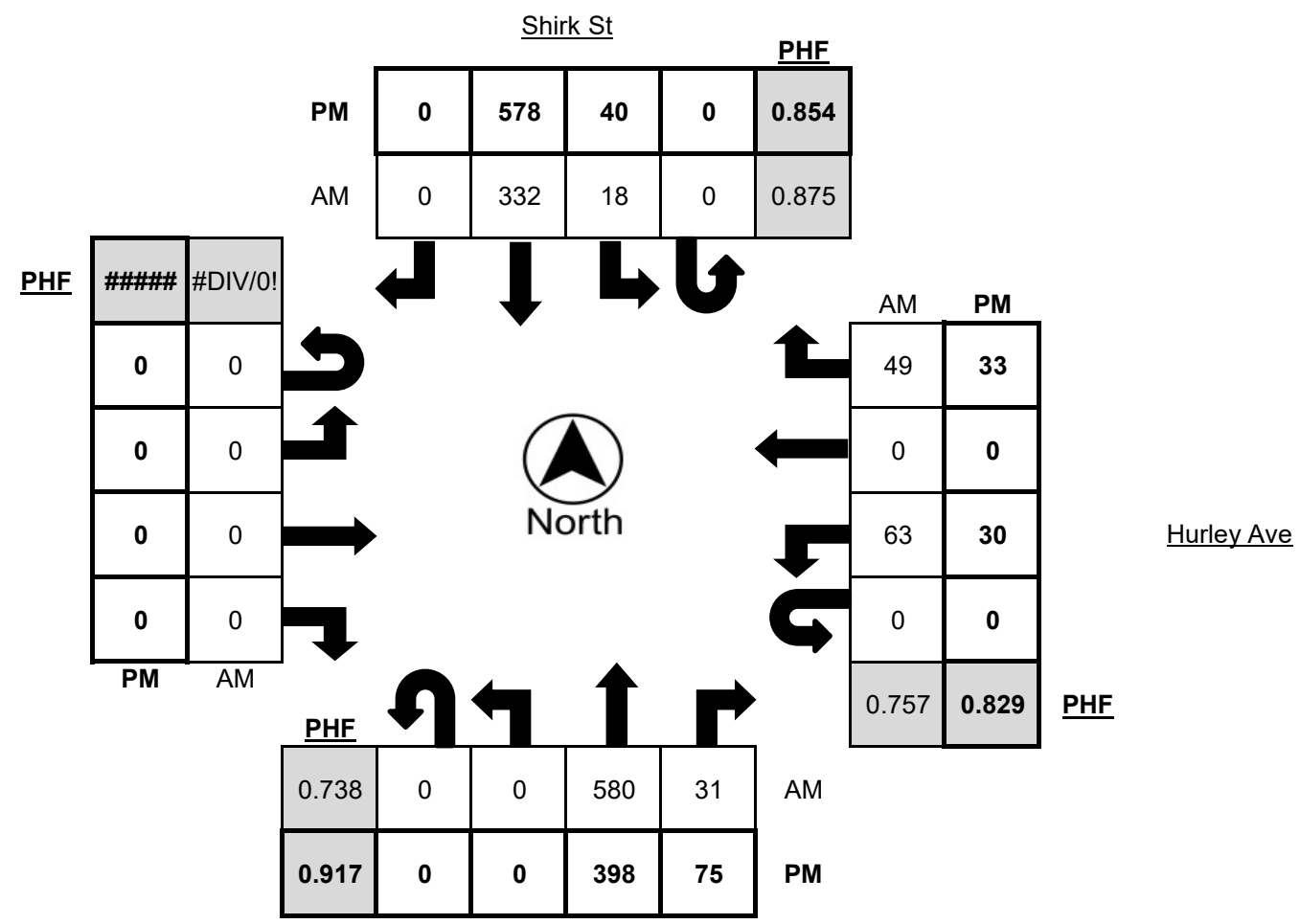
LOCATION Shirk St @ Hurley Ave
LATITUDE 36.3344
COUNTY Tulare
LONGITUDE -119.3676
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	0	120	11	8	0	5	61	0	7	0	0	0	0	0	0	11	0	9	0
7:15 AM - 7:30 AM	0	0	119	6	6	0	2	87	0	9	0	0	0	0	0	0	14	0	13	1
7:30 AM - 7:45 AM	0	0	144	4	5	0	1	99	0	6	0	0	0	0	0	0	19	0	9	0
7:45 AM - 8:00 AM	0	0	197	10	9	0	10	85	0	8	0	0	0	0	0	0	19	0	18	0
8:00 AM - 8:15 AM	0	0	78	8	6	0	8	95	0	7	0	0	0	0	0	0	9	0	10	0
8:15 AM - 8:30 AM	0	0	96	5	8	0	2	73	0	3	0	0	0	0	0	0	16	0	5	0
8:30 AM - 8:45 AM	0	0	93	5	12	0	4	108	0	19	0	0	0	0	0	0	12	0	10	0
8:45 AM - 9:00 AM	0	0	83	6	5	0	6	80	0	12	0	0	0	0	0	0	8	0	5	1
TOTAL	**0**	**0**	**930**	**55**	**59**	**0**	**38**	**688**	**0**	**71**	**0**	**0**	**0**	**0**	**0**	**0**	**108**	**0**	**79**	**2**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	86	12	8	0	13	172	0	6	0	0	0	0	0	0	10	0	4	1
4:15 PM - 4:30 PM	0	0	94	15	8	0	11	147	0	5	0	0	0	0	0	0	3	0	5	0
4:30 PM - 4:45 PM	0	0	103	20	6	0	7	171	0	2	0	0	0	0	0	0	9	0	9	0
4:45 PM - 5:00 PM	0	0	108	21	5	0	3	98	0	3	0	0	0	0	0	0	11	0	8	0
5:00 PM - 5:15 PM	0	0	93	19	3	0	19	162	0	4	0	0	0	0	0	0	7	0	11	0
5:15 PM - 5:30 PM	0	0	107	20	7	0	8	105	0	7	0	0	0	0	0	0	6	0	5	0
5:30 PM - 5:45 PM	0	0	94	18	6	0	9	100	0	2	0	0	0	0	0	0	5	0	10	0
5:45 PM - 6:00 PM	0	0	76	8	4	0	7	67	0	0	0	0	0	0	0	0	8	0	2	0
TOTAL	**0**	**0**	**761**	**133**	**47**	**0**	**77**	**1022**	**0**	**29**	**0**	**0**	**0**	**0**	**0**	**0**	**59**	**0**	**54**	**1**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 8:00 AM	0	0	580	31	28	0	18	332	0	30	0	0	0	0	0	0	63	0	49	1
4:15 PM - 5:15 PM	0	0	398	75	22	0	40	578	0	14	0	0	0	0	0	0	30	0	33	0

	PHF	Trucks
AM	0.791	5.5%
PM	0.904	3.1%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

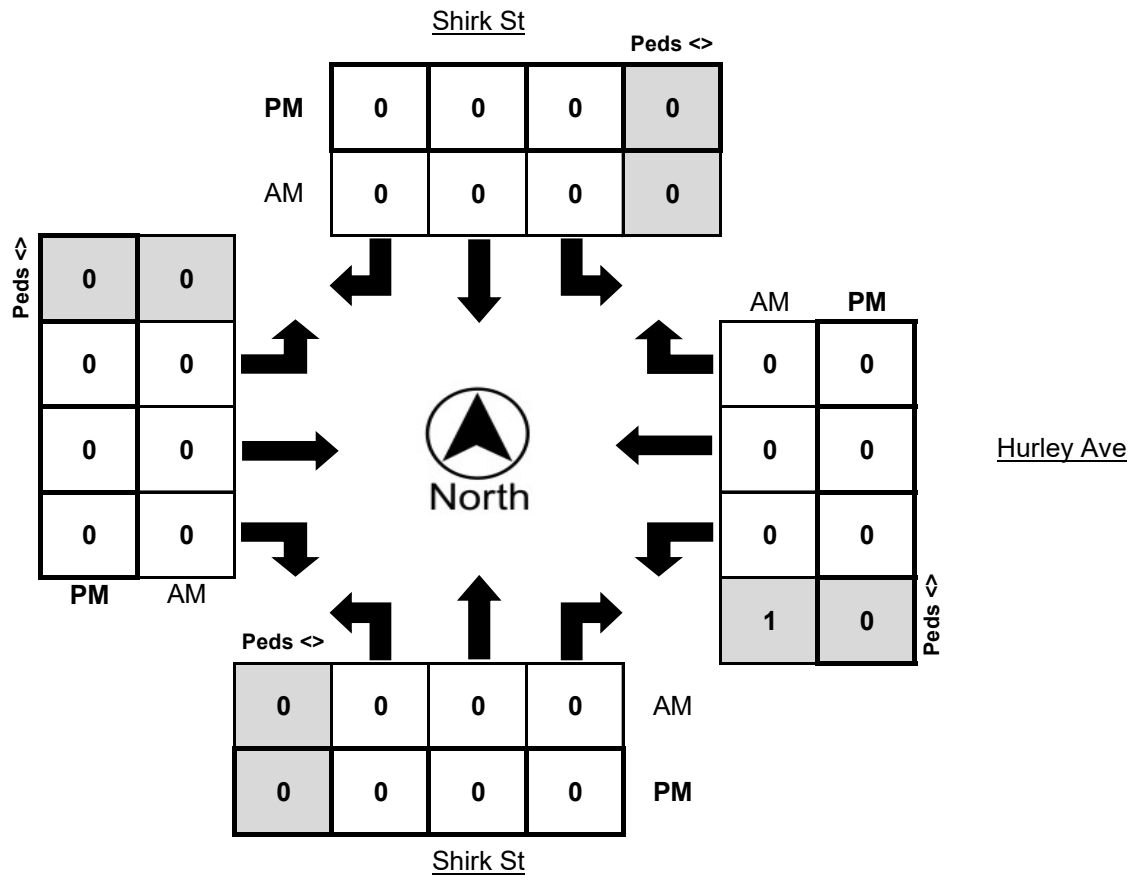
LOCATION Shirk St @ Hurley Ave
LATITUDE 36.3344
COUNTY Tulare
LONGITUDE -119.3676
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	1
PM Peak Total	**0**	**0**



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310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

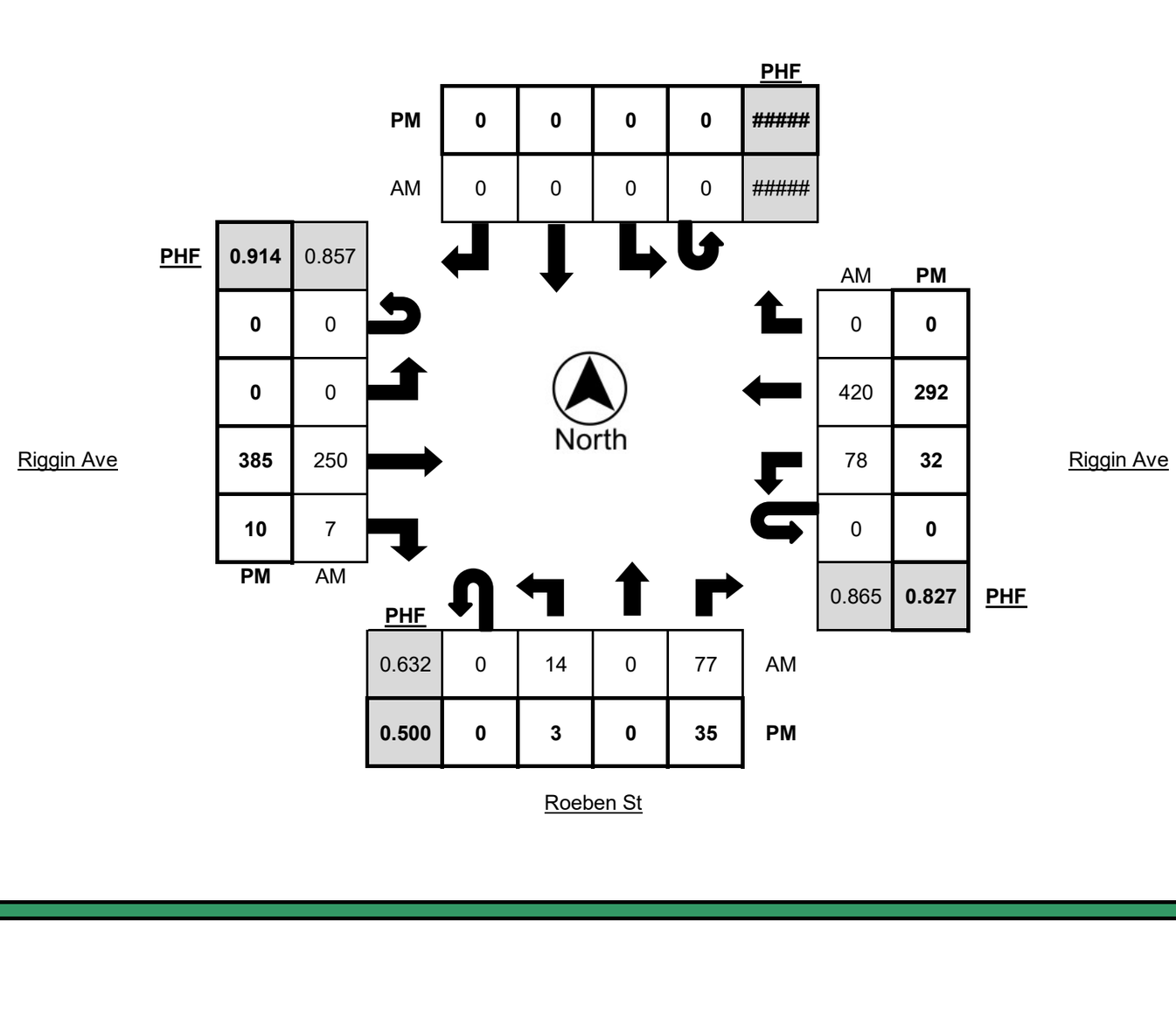
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Roeben St @ Riggin Ave
LATITUDE 36.3565
COUNTY Tulare
LONGITUDE -119.3589
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	4	0	1	0	0	0	0	0	0	0	0	33	0	3	0	1	59	0	0
6:15 AM - 6:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	21	0	0	0	1	75	0	2
6:30 AM - 6:45 AM	0	2	0	4	1	0	0	0	0	0	0	0	33	0	2	0	2	68	0	1
6:45 AM - 7:00 AM	0	0	0	5	0	0	0	0	0	0	0	0	40	0	2	0	8	82	0	1
7:00 AM - 7:15 AM	0	5	0	11	0	0	0	0	0	0	0	0	45	1	2	0	4	79	0	3
7:15 AM - 7:30 AM	0	2	0	5	0	0	0	0	0	0	0	0	42	2	2	0	9	93	0	4
7:30 AM - 7:45 AM	0	6	0	16	0	0	0	0	0	0	0	0	52	4	3	0	14	106	0	2
7:45 AM - 8:00 AM	0	2	0	13	0	0	0	0	0	0	0	0	59	0	2	0	25	119	0	1
8:00 AM - 8:15 AM	0	3	0	33	0	0	0	0	0	0	0	0	74	1	4	0	31	98	0	2
8:15 AM - 8:30 AM	0	3	0	15	0	0	0	0	0	0	0	0	65	2	3	0	8	97	0	2
8:30 AM - 8:45 AM	0	2	0	11	0	0	0	0	0	0	0	0	36	3	2	0	3	65	0	4
8:45 AM - 9:00 AM	0	0	0	4	0	0	0	0	0	0	0	0	41	1	2	0	3	62	0	5
9:00 AM - 9:15 AM	0	2	0	7	0	0	0	0	0	0	0	0	29	1	2	0	2	56	0	2
9:15 AM - 9:30 AM	0	3	0	3	0	0	0	0	0	0	0	0	49	0	1	0	2	36	0	3
9:30 AM - 9:45 AM	0	0	0	4	0	0	0	0	0	0	0	0	47	1	3	0	6	46	0	4
9:45 AM - 10:00 AM	0	1	0	4	1	0	0	0	0	0	0	0	56	0	2	0	3	43	0	1
10:00 AM - 10:15 AM	0	1	0	5	0	0	0	0	0	0	0	0	57	2	0	0	4	45	0	1
10:15 AM - 10:30 AM	0	0	0	4	0	0	0	0	0	0	0	0	56	2	5	0	6	47	0	0
10:30 AM - 10:45 AM	0	2	0	4	0	0	0	0	0	0	0	0	50	1	0	0	1	49	0	1
10:45 AM - 11:00 AM	0	0	0	3	0	0	0	0	0	0	0	0	50	2	3	0	3	50	0	1
11:00 AM - 11:15 AM	0	1	0	6	0	0	0	0	0	0	0	0	40	0	1	0	5	52	0	2
11:15 AM - 11:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	61	1	3	0	4	56	0	1
11:30 AM - 11:45 AM	0	0	0	3	0	0	0	0	0	0	0	0	55	6	0	0	3	45	0	2
11:45 AM - 12:00 PM	0	2	0	3	0	0	0	0	0	0	0	0	60	0	1	0	3	52	0	1
12:00 PM - 12:15 PM	0	1	0	6	0	0	0	0	0	0	0	0	61	3	3	0	6	50	0	0
12:15 PM - 12:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	60	2	5	0	5	54	0	2
12:30 PM - 12:45 PM	0	2	0	7	0	0	0	0	0	0	0	0	59	3	1	0	6	44	0	1
12:45 PM - 1:00 PM	0	5	0	4	0	0	0	0	0	0	0	0	41	1	2	0	6	66	0	5
1:00 PM - 1:15 PM	0	2	0	6	1	0	0	0	0	0	0	0	67	2	2	0	3	56	0	2
1:15 PM - 1:30 PM	0	2	0	6	0	0	0	0	0	0	0	0	68	1	0	0	3	66	0	2
1:30 PM - 1:45 PM	0	1	0	2	0	0	0	0	0	0	0	0	123	0	2	0	9	87	0	4
1:45 PM - 2:00 PM	0	0	0	5	0	0	0	0	0	0	0	0	74	1	0	0	10	63	0	1
2:00 PM - 2:15 PM	0	1	0	5	0	0	0	0	0	0	0	0	87	2	1	0	15	63	0	1
2:15 PM - 2:30 PM	0	0	0	20	0	0	0	0	0	0	0	0	80	0	2	0	11	57	0	1
2:30 PM - 2:45 PM	0	2	0	10	0	0	0	0	0	0	0	0	97	3	1	0	6	45	0	0
2:45 PM - 3:00 PM	0	1	0	10	0	0	0	0	0	0	0	0	104	0	2	0	3	63	0	2
3:00 PM - 3:15 PM	0	0	0	12	0	0	0	0	0	0	0	0	88	4	2	0	4	51	0	2
3:15 PM - 3:30 PM	0	0	0	19	1	0	0	0	0	0	0	0	90	1	4	0	9	89	0	6
3:30 PM - 3:45 PM	0	1	0	8	0	0	0	0	0	0	0	0	92	2	3	0	10	61	0	2
3:45 PM - 4:00 PM	0	0	0	4	0	0	0	0	0	0	0	0	98	4	2	0	10	80	0	2
4:00 PM - 4:15 PM	0	2	0	4	0	0	0	0	0	0	0	0	105	3	3	0	3	62	0	1
4:15 PM - 4:30 PM	0	0	0	8	0	0	0	0	0	0	0	0	102	5	3	0	5	48	0	1
4:30 PM - 4:45 PM	0	2	0	6	0	0	0	0	0	0	0	0	109	0	1	0	6	59	0	2
4:45 PM - 5:00 PM	0	1	0	7	0	0	0	0	0	0	0	0	110	4	0	0	9	60	0	1
5:00 PM - 5:15 PM	0	1	0	3	0	0	0	0	0	0	0	0	115	2	0	0	10	60	0	7
5:15 PM - 5:30 PM	0	1	0	9	0	0	0	0	0	0	0	0	110	3	1	0	5	50	0	4
5:30 PM - 5:45 PM	0	0	0	5	0	0	0	0	0	0	0	0	107	5	1	0	12	44	0	0
5:45 PM - 6:00 PM	0	1	0	4	0	0	0	0	0	0	0	0	88	6	1	0	4	58	0	0
6:00 PM - 6:15 PM	0	1	0	3	0	0	0	0	0	0	0	0	108	2	1	0	7	45	0	1
6:15 PM - 6:30 PM	0	0	0	7	0	0	0	0	0	0	0	0	72	2	0	0	5	51	0	3
6:30 PM - 6:45 PM	0	1	0	3	0	0	0	0	0	0	0	0	60	1	1	0	7	35	0	1
6:45 PM - 7:00 PM	0	1	0	4	0	0	0	0	0	0	0	0	55	0	1	0	4	48	0	1
7:00 PM - 7:15 PM	0	0	0	4	0	0	0	0	0	0	0	0	54	1	0	0	4	40	0	0
7:15 PM - 7:30 PM	0	0	0	5	0	0	0	0	0	0	0	0	45	0	0	0	7	39	0	0
7:30 PM - 7:45 PM	0	0	0	5	0	0	0	0	0	0	0	0	45	1	1	0	7	29	0	2
7:45 PM - 8:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	53	0	0	0	8	44	0	3
TOTAL	0	72	0	372	4	0	0	0	0	0	0	0	3778	94	94	0	370	3347	0	106

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:30 AM - 8:30 AM	0	14	0	77	0	0	0	0	0	0	0	0	250	7	12	0	78	420	0	7
3:15 PM - 4:15 PM	0	3	0	35	1	0	0	0	0	0	0	0	385	10	12	0	32	292	0	11

	PHF	Trucks
AM	0.881	2.2%
PM	0.910	3.2%



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Turning Movement Report

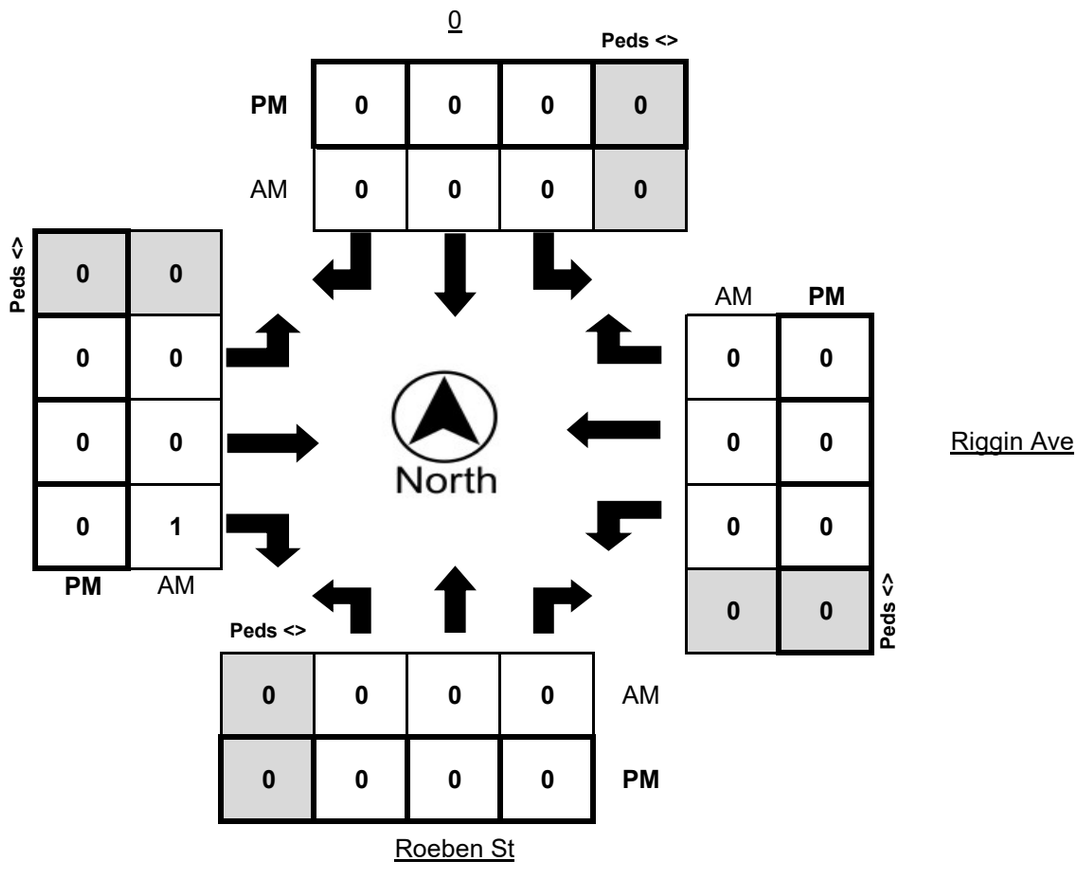
Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Roeben St @ Riggin Ave
LATITUDE 36.3565
COUNTY Tulare
LONGITUDE -119.3589
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	1	0
PM Peak Total	0	0



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

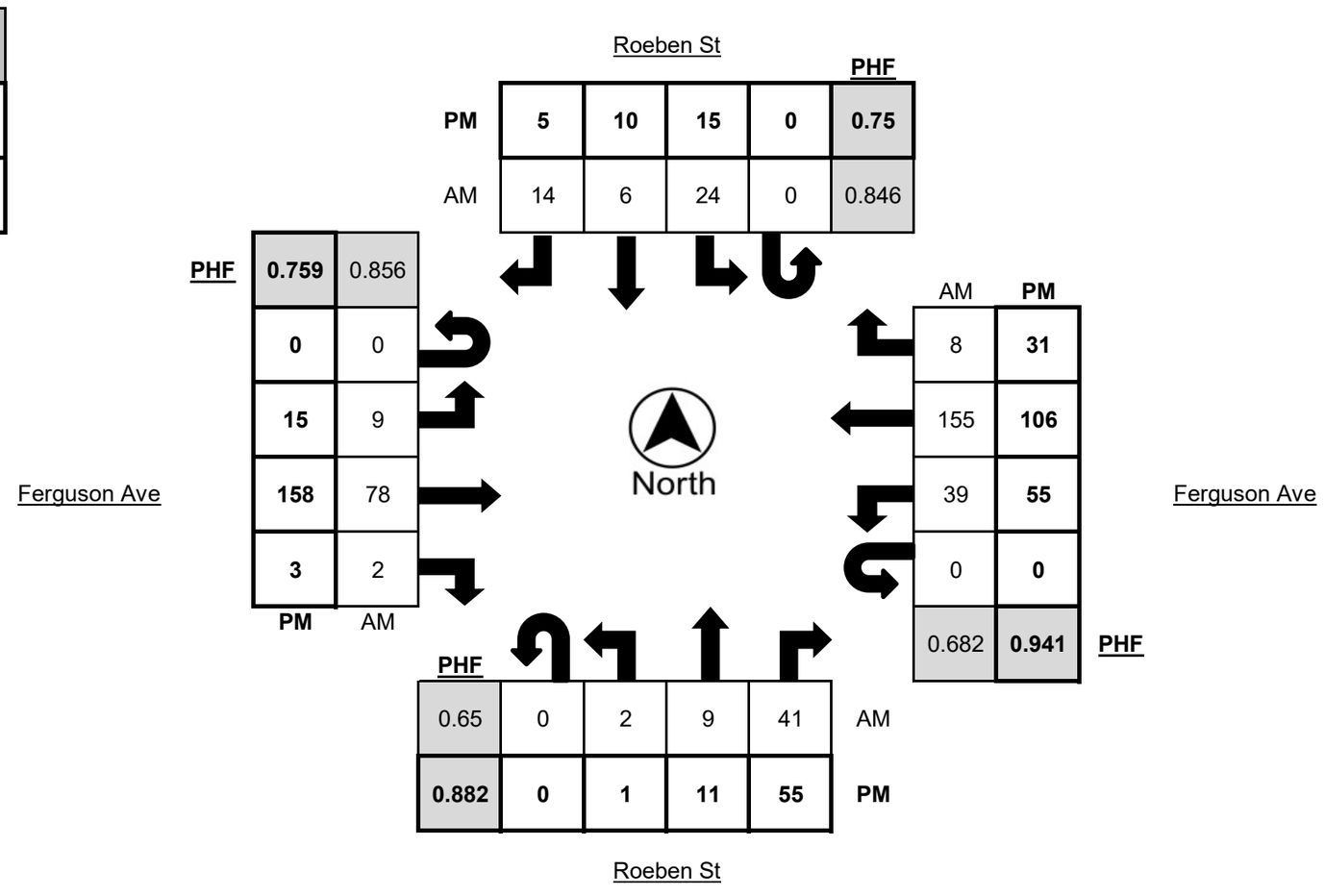
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Roeben St @ Ferguson Ave
LATITUDE 36.3511
COUNTY Tulare
LONGITUDE -119.3589
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	1	2	4	0	0	1	2	1	0	0	1	8	1	0	0	5	22	2	0
6:15 AM - 6:30 AM	0	1	1	5	0	0	5	3	3	0	0	1	7	1	1	0	4	15	0	0
6:30 AM - 6:45 AM	0	0	1	5	0	0	1	2	3	0	0	1	11	0	1	0	6	25	0	0
6:45 AM - 7:00 AM	0	1	2	1	0	0	4	5	3	0	0	2	12	0	1	0	5	55	2	0
7:00 AM - 7:15 AM	0	0	1	7	0	0	7	2	2	0	0	3	19	2	1	0	8	36	4	0
7:15 AM - 7:30 AM	0	0	1	9	1	0	5	0	4	0	0	1	22	0	0	0	4	29	2	1
7:30 AM - 7:45 AM	0	2	1	11	0	0	8	2	3	1	0	0	16	0	0	0	7	37	1	0
7:45 AM - 8:00 AM	0	0	6	14	0	0	4	2	5	0	0	5	21	0	0	0	20	53	1	1
8:00 AM - 8:15 AM	0	0	0	9	0	0	3	0	4	0	0	1	22	1	1	0	7	30	4	1
8:15 AM - 8:30 AM	0	0	1	8	0	0	3	2	2	0	0	4	15	2	0	0	9	20	5	1
8:30 AM - 8:45 AM	0	1	3	14	0	0	5	2	8	0	0	1	19	0	0	0	3	19	5	1
8:45 AM - 9:00 AM	0	0	4	7	0	0	7	2	2	0	0	0	20	1	0	0	3	20	5	1
9:00 AM - 9:15 AM	0	0	1	3	0	0	6	1	0	0	0	1	15	0	1	1	6	22	3	0
9:15 AM - 9:30 AM	0	1	2	7	0	0	4	1	1	0	0	2	13	1	1	0	8	21	2	0
9:30 AM - 9:45 AM	0	1	0	6	0	0	1	3	2	0	0	3	24	1	0	0	9	19	3	0
9:45 AM - 10:00 AM	0	4	1	9	0	0	5	4	2	0	0	1	21	1	0	0	10	21	7	0
10:00 AM - 10:15 AM	0	1	2	5	0	0	2	1	2	0	0	2	26	1	0	0	6	13	1	0
10:15 AM - 10:30 AM	0	1	1	6	0	0	7	2	0	0	0	0	17	0	1	0	7	16	2	1
10:30 AM - 10:45 AM	0	0	3	2	0	0	4	5	1	0	0	2	8	0	0	0	7	29	2	1
10:45 AM - 11:00 AM	0	0	2	9	1	0	9	1	0	0	0	2	27	0	1	0	6	21	2	0
11:00 AM - 11:15 AM	0	1	4	11	0	0	5	3	3	0	0	3	25	0	0	0	5	39	6	1
11:15 AM - 11:30 AM	0	0	2	5	0	0	6	1	0	0	0	2	23	1	4	0	9	22	3	1
11:30 AM - 11:45 AM	0	1	4	8	1	0	5	2	4	0	0	1	21	1	1	0	8	22	8	2
11:45 AM - 12:00 PM	0	0	1	8	0	0	5	2	2	0	0	3	22	1	0	0	5	27	7	1
12:00 PM - 12:15 PM	0	0	3	8	0	0	5	3	3	0	0	1	28	0	0	0	8	28	6	0
12:15 PM - 12:30 PM	0	1	3	9	0	0	6	2	2	0	0	3	20	1	1	0	10	27	7	0
12:30 PM - 12:45 PM	0	2	2	8	0	0	2	3	1	0	0	1	23	0	0	0	10	30	7	0
12:45 PM - 1:00 PM	0	0	5	13	1	0	8	6	4	0	0	2	19	1	0	0	10	37	7	0
1:00 PM - 1:15 PM	0	0	2	9	0	0	5	5	2	0	0	3	18	0	1	0	9	33	8	0
1:15 PM - 1:30 PM	0	0	3	1	0	0	7	2	2	0	0	6	29	1	1	0	11	27	9	2
1:30 PM - 1:45 PM	0	1	4	8	0	0	5	4	0	0	0	3	27	2	0	0	11	23	3	0
1:45 PM - 2:00 PM	0	0	3	6	0	0	6	1	4	0	0	4	24	0	0	0	5	30	5	2
2:00 PM - 2:15 PM	0	0	3	6	0	0	6	6	3	1	0	1	27	0	0	0	9	25	8	0
2:15 PM - 2:30 PM	0	1	2	9	1	0	7	1	1	1	0	0	23	1	0	0	8	20	5	1
2:30 PM - 2:45 PM	0	0	1	10	0	0	6	2	4	0	0	0	24	0	0	0	5	28	4	1
2:45 PM - 3:00 PM	0	0	0	17	1	0	4	4	2	0	0	3	21	1	0	0	7	14	5	0
3:00 PM - 3:15 PM	0	2	1	10	0	0	1	2	0	0	0	5	26	1	0	0	9	21	6	0
3:15 PM - 3:30 PM	0	2	2	14	0	0	0	5	1	0	0	4	21	3	2	0	12	15	2	0
3:30 PM - 3:45 PM	0	0	1	10	0	0	12	3	2	0	0	0	47	2	0	0	7	18	11	0
3:45 PM - 4:00 PM	0	3	4	13	0	0	6	3	0	1	0	4	33	3	1	0	8	22	12	2
4:00 PM - 4:15 PM	0	0	0	9	0	0	2	2	3	0	0	2	44	0	0	0	10	24	8	1
4:15 PM - 4:30 PM	0	0	3	11	0	0	9	2	1	0	0	3	23	1	0	0	15	22	4	1
4:30 PM - 4:45 PM	0	0	5	14	0	0	3	2	1	0	0	5	53	0	1	0	13	32	6	1
4:45 PM - 5:00 PM	0	0	4	14	0	0	1	3	1	0	0	2	19	1	0	0	15	23	10	1
5:00 PM - 5:15 PM	0	1	1	15	0	0	8	1	1	0	0	3	53	1	0	0	16	28	4	0
5:15 PM - 5:30 PM	0	0	1	12	0	0	3	4	2	0	0	5	33	1	0	0	11	23	11	0
5:30 PM - 5:45 PM	0	1	5	7	0	0	5	2	2	0	0	2	31	1	0	0	9	32	11	0
5:45 PM - 6:00 PM	0	0	6	12	0	0	5	4	2	0	0	5	30	1	1	0	15	19	9	0
6:00 PM - 6:15 PM	0	1	3	8	0	0	4	2	4	0	0	3	38	2	0	0	11	26	4	0
6:15 PM - 6:30 PM	0	0	9	7	0	0	4	5	3	1	0	1	20	0	0	0	7	24	9	0
6:30 PM - 6:45 PM	0	1	4	7	0	0	3	3	2	0	0	1	15	1	0	0	14	17	7	0
6:45 PM - 7:00 PM	0	1	4	12	0	0	4	6	1	0	0	6	17	1	0	0	7	16	3	1
7:00 PM - 7:15 PM	0	1	0	6	0	0	0	3	0	0	0	2	18	1	0	0	3	17	8	0
7:15 PM - 7:30 PM	0	0	2	6	0	0	3	3	2	0	0	1	14	0	0	0	12	21	2	0
7:30 PM - 7:45 PM	0	0	2	8	0	0	2	0	0	0	0	2	10	1	0	0	9	19	2	1
7:45 PM - 8:00 PM	0	0	7	3	0	0	4	2	2	0	0	0	8	2	0	0	3	14	6	1
TOTAL	**0**	**34**	**141**	**475**	**6**	**0**	**258**	**146**	**115**	**5**	**0**	**125**	**1270**	**45**	**22**	**1**	**476**	**1388**	**286**	**28**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:00 AM - 8:00 AM	0	2	9	41	1	0	24	6	14	1	0	9	78	2	1	0	39	155	8	2
4:30 PM - 5:30 PM	0	1	11	55	0	0	15	10	5	0	0	15	158	3	1	0	55	106	31	2

	PHF	Trucks
AM	0.739	1.3%
PM	0.868	0.6%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

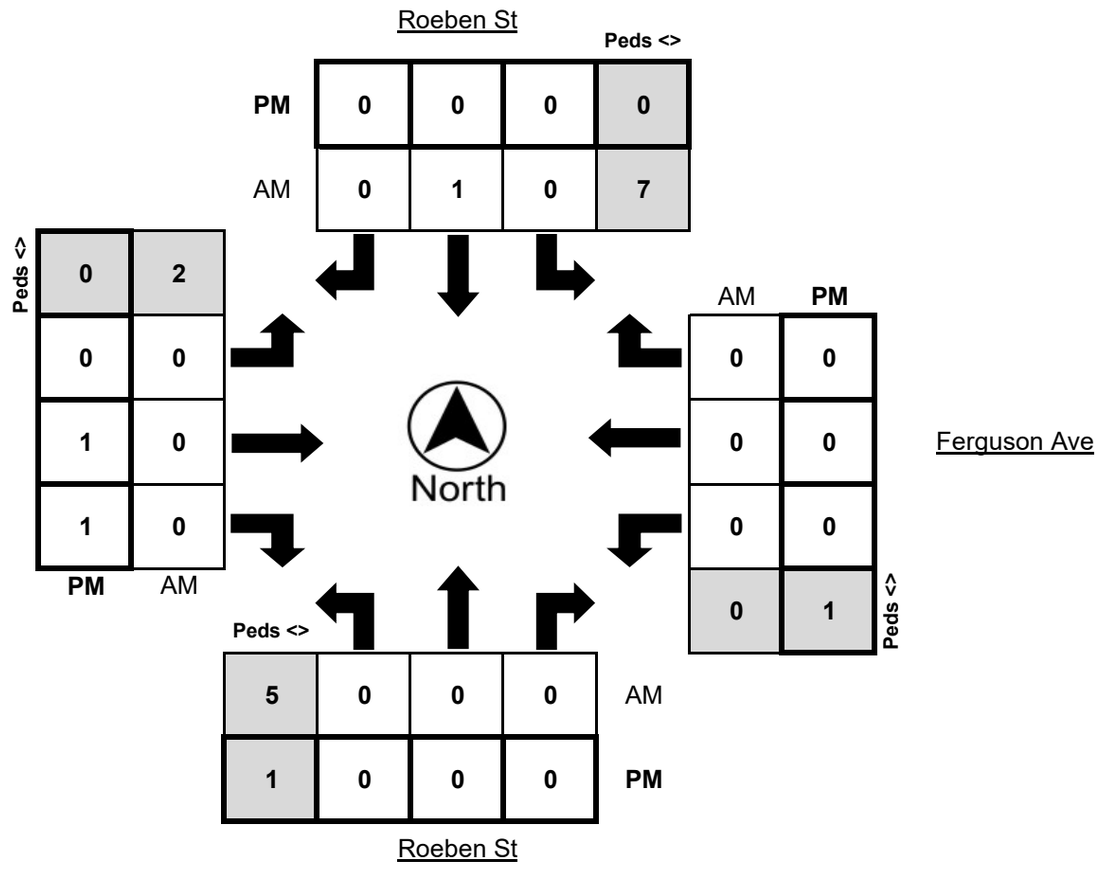
Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Roeben St @ Ferguson Ave
LATITUDE 36.3511
COUNTY Tulare
LONGITUDE -119.3589
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	2	0	0	0	3	0	2	0	1	1	0	0	0
6:15 AM - 6:30 AM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	5	0	0	0	1	0	0	0	2	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM - 7:45 AM	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	1
7:45 AM - 8:00 AM	0	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	7	0	0	0	1	0	0	0	2	0	1	0	0
8:15 AM - 8:30 AM	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0
8:30 AM - 8:45 AM	0	0	0	3	0	1	0	4	0	0	0	3	0	1	0	1
8:45 AM - 9:00 AM	0	0	5	1	0	0	0	0	0	0	2	0	0	0	0	1
9:00 AM - 9:15 AM	0	0	2	1	0	0	0	0	0	0	0	3	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	0
9:30 AM - 9:45 AM	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1
10:15 AM - 10:30 AM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
10:30 AM - 10:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	1	0	0	0	3	0	0	0	0	0	3	0	1
11:15 AM - 11:30 AM	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
3:45 PM - 4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	15	0	0	0	0	1	0	0	0	3	0	0	0	1
7:00 PM - 7:15 PM	0	2	4	0	0	0	0	0	0	0	0	0	0	1	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0
7:30 PM - 7:45 PM	0	0	0	3	0	0	0	1	0	2	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
TOTAL	**1**	**5**	**29**	**50**	**0**	**2**	**0**	**41**	**0**	**7**	**4**	**23**	**3**	**8**	**1**	**11**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 8:00 AM	0	0	0	7	0	1	0	5	0	0	0	0	0	0	0	2
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0

	Bikes	Peds
AM Peak Total	1	14
PM Peak Total	**2**	**2**



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Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Ave 320 @ Rd 100 **LATITUDE** 36.3710

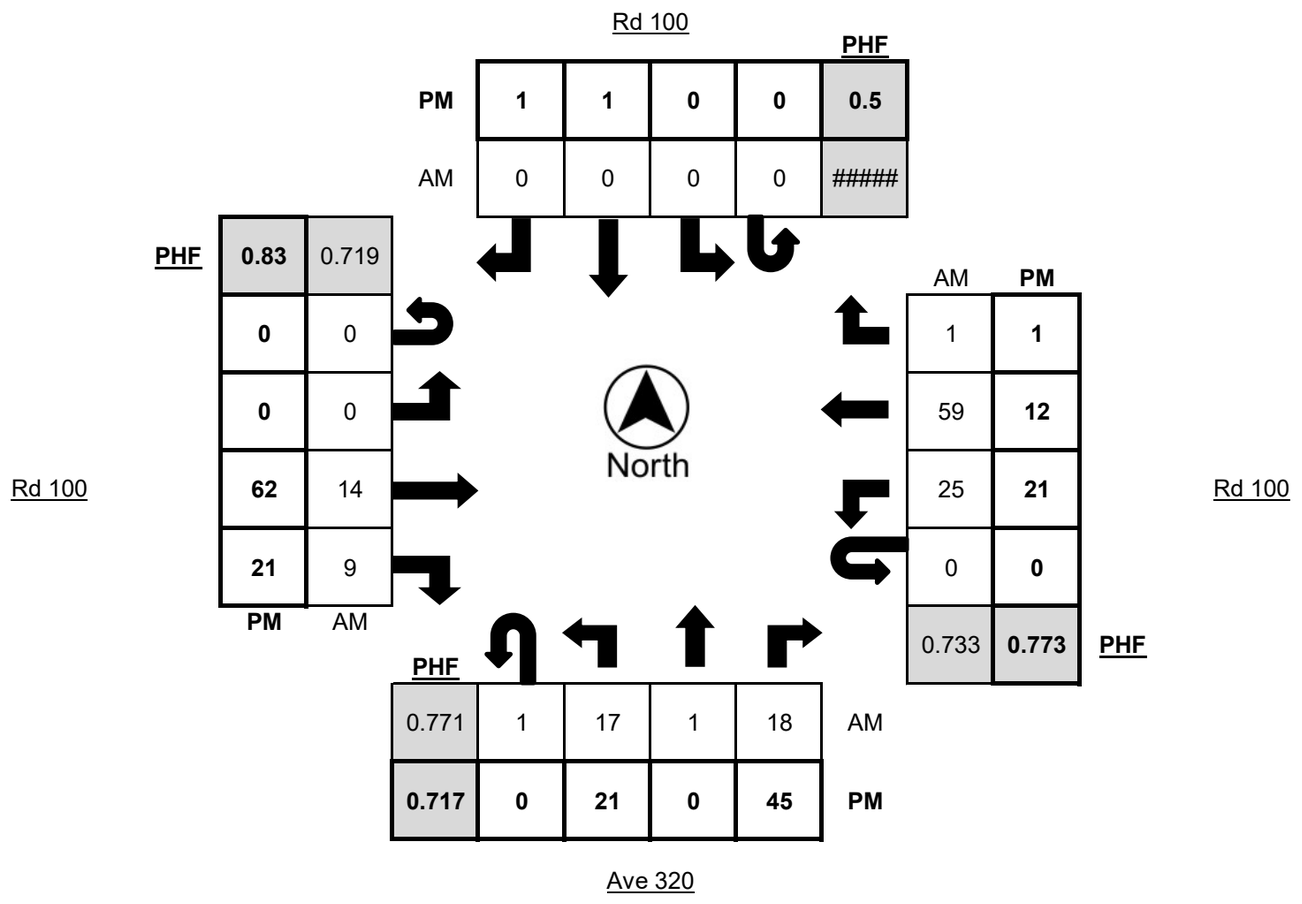
COUNTY Tulare **LONGITUDE** -119.3502

COLLECTION DATE Tuesday, June 28, 2022 **WEATHER** Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	2	1	4	0	0	0	1	0	0	0	0	8	0	0	0	2	8	0	0
6:15 AM - 6:30 AM	0	2	0	3	0	0	0	0	0	0	0	1	6	2	0	0	3	12	0	0
6:30 AM - 6:45 AM	0	5	0	4	0	0	0	0	1	0	0	0	2	1	0	0	4	8	0	0
6:45 AM - 7:00 AM	0	3	0	3	0	0	0	0	0	0	0	0	5	3	0	0	5	24	0	0
7:00 AM - 7:15 AM	1	3	1	4	0	0	0	0	0	0	0	0	5	2	2	0	3	14	0	0
7:15 AM - 7:30 AM	0	5	0	7	0	0	0	0	0	0	0	0	1	2	1	0	7	12	0	0
7:30 AM - 7:45 AM	0	6	0	4	0	0	0	0	0	0	0	0	3	2	0	0	10	9	1	0
7:45 AM - 8:00 AM	0	4	0	6	0	0	0	0	0	0	1	0	6	4	1	0	8	13	0	0
8:00 AM - 8:15 AM	0	5	0	2	0	0	0	0	0	0	0	0	3	3	0	0	5	11	0	0
8:15 AM - 8:30 AM	0	7	0	4	0	0	0	0	1	0	0	0	6	2	0	0	4	3	0	0
8:30 AM - 8:45 AM	0	2	1	2	0	0	0	0	0	0	0	1	9	1	1	0	5	7	0	0
8:45 AM - 9:00 AM	0	3	0	2	0	0	0	0	0	0	0	0	13	1	3	0	3	5	0	0
9:00 AM - 9:15 AM	0	2	0	3	0	0	0	0	0	0	0	0	9	4	0	0	7	4	0	0
9:15 AM - 9:30 AM	0	4	0	3	0	0	0	0	0	0	0	0	12	3	1	0	4	3	0	0
9:30 AM - 9:45 AM	0	4	0	5	1	0	0	0	0	0	0	0	12	2	0	0	7	4	0	0
9:45 AM - 10:00 AM	0	3	0	5	0	0	0	0	0	0	0	0	7	2	1	0	5	1	0	0
10:00 AM - 10:15 AM	0	5	0	1	1	0	1	0	0	0	0	0	7	7	1	0	3	6	0	0
10:15 AM - 10:30 AM	0	7	0	4	0	0	0	0	0	0	0	0	5	5	0	0	4	5	0	0
10:30 AM - 10:45 AM	0	5	0	3	1	0	0	0	0	0	0	0	9	4	0	0	2	4	0	0
10:45 AM - 11:00 AM	0	2	2	4	0	0	0	1	0	0	0	0	5	1	1	0	5	3	0	0
11:00 AM - 11:15 AM	0	2	0	3	0	0	0	0	0	0	0	0	4	5	2	0	4	3	0	0
11:15 AM - 11:30 AM	0	3	3	3	0	0	0	0	0	0	0	0	10	1	1	0	3	4	0	0
11:30 AM - 11:45 AM	0	0	0	4	0	0	1	0	1	0	0	0	7	1	1	0	2	11	0	0
11:45 AM - 12:00 PM	0	6	0	3	0	0	0	0	0	0	0	1	10	3	0	0	3	7	0	0
12:00 PM - 12:15 PM	0	2	0	4	0	0	0	0	0	0	0	1	15	2	1	0	6	3	0	0
12:15 PM - 12:30 PM	0	3	0	2	0	0	0	0	0	0	0	0	7	2	0	0	6	4	0	0
12:30 PM - 12:45 PM	0	3	0	4	1	0	0	0	1	1	0	0	4	1	0	0	4	2	0	0
12:45 PM - 1:00 PM	0	2	0	3	0	0	0	0	0	0	0	0	7	1	1	0	1	6	0	0
1:00 PM - 1:15 PM	0	2	0	8	0	0	0	0	0	0	0	0	5	2	0	0	2	9	1	0
1:15 PM - 1:30 PM	0	2	0	0	0	0	0	0	2	0	0	0	5	0	1	0	4	6	0	0
1:30 PM - 1:45 PM	0	0	0	6	1	0	0	0	1	1	0	1	11	5	2	0	5	1	0	0
1:45 PM - 2:00 PM	0	2	0	6	0	0	0	0	1	0	0	1	9	0	2	0	4	9	0	0
2:00 PM - 2:15 PM	0	3	0	8	0	0	0	0	1	0	0	0	20	3	1	0	5	8	0	0
2:15 PM - 2:30 PM	0	1	0	8	0	0	0	0	0	0	0	1	13	2	2	0	4	3	0	0
2:30 PM - 2:45 PM	0	6	1	9	0	0	0	0	1	0	0	1	22	4	0	0	8	11	0	0
2:45 PM - 3:00 PM	0	2	0	5	0	0	0	0	0	0	0	0	10	8	0	0	3	6	0	0
3:00 PM - 3:15 PM	0	5	0	3	1	0	0	0	0	0	0	1	9	3	0	0	5	5	0	0
3:15 PM - 3:30 PM	0	4	0	7	0	0	0	0	0	0	0	0	10	4	0	0	3	3	0	0
3:30 PM - 3:45 PM	0	4	0	9	0	0	0	0	0	0	0	0	15	7	3	0	3	7	0	0
3:45 PM - 4:00 PM	0	3	0	4	0	0	0	0	0	0	0	0	14	8	1	0	2	3	0	0
4:00 PM - 4:15 PM	0	3	0	6	0	0	0	0	0	0	0	0	23	5	0	0	4	3	0	0
4:15 PM - 4:30 PM	0	3	0	3	0	0	0	0	0	0	0	0	15	2	0	0	5	6	0	0
4:30 PM - 4:45 PM	0	4	0	7	0	0	0	0	0	0	0	0	18	5	0	0	6	1	0	0
4:45 PM - 5:00 PM	0	6	0	9	0	0	0	0	0	0	0	0	13	5	0	0	7	2	0	0
5:00 PM - 5:15 PM	0	8	0	15	0	0	0	0	0	0	0	0	12	5	0	0	3	3	0	0
5:15 PM - 5:30 PM	0	5	0	13	0	0	0	0	1	0	0	0	18	7	0	0	5	2	1	0
5:30 PM - 5:45 PM	0	2	0	8	0	0	0	1	0	1	0	0	19	4	1	0	6	5	0	0
5:45 PM - 6:00 PM	0	1	0	3	0	0	0	0	0	0	0	0	10	4	0	0	3	3	0	0
6:00 PM - 6:15 PM	0	3	0	2	0	0	0	0	0	0	0	0	15	2	0	0	1	2	0	0
6:15 PM - 6:30 PM	0	2	0	1	0	0	0	0	0	0	0	0	14	3	0	0	6	10	0	0
6:30 PM - 6:45 PM	0	2	0	7	0	0	0	0	0	0	0	0	7	2	0	0	2	2	0	0
6:45 PM - 7:00 PM	0	1	0	3	0	0	0	0	0	0	0	0	10	3	0	0	4	4	0	0
7:00 PM - 7:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	10	4	0	0	3	1	0	0
7:15 PM - 7:30 PM	0	2	0	4	0	0	0	0	0	0	0	0	8	1	0	0	3	2	0	0
7:30 PM - 7:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	8	2	1	0	0	4	0	0
7:45 PM - 8:00 PM	0	0	0	3	0	0	0	0	0	0	0	0	11	2	0	0	1	3	0	0
TOTAL	1	180	9	258	6	0	2	3	11	3	1	9	551	169	32	0	232	320	3	0

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:45 AM - 7:45 AM	1	17	1	18	0	0	0	0	0	0	0	0	14	9	3	0	25	59	1	0
4:45 PM - 5:45 PM	0	21	0	45	0	0	0	1	1	1	0	0	62	21	1	0	21	12	1	0

	PHF	Trucks
AM	0.843	2.1%
PM	0.889	1.1%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Ave 320 @ Rd 100 **LATITUDE** 36.3710

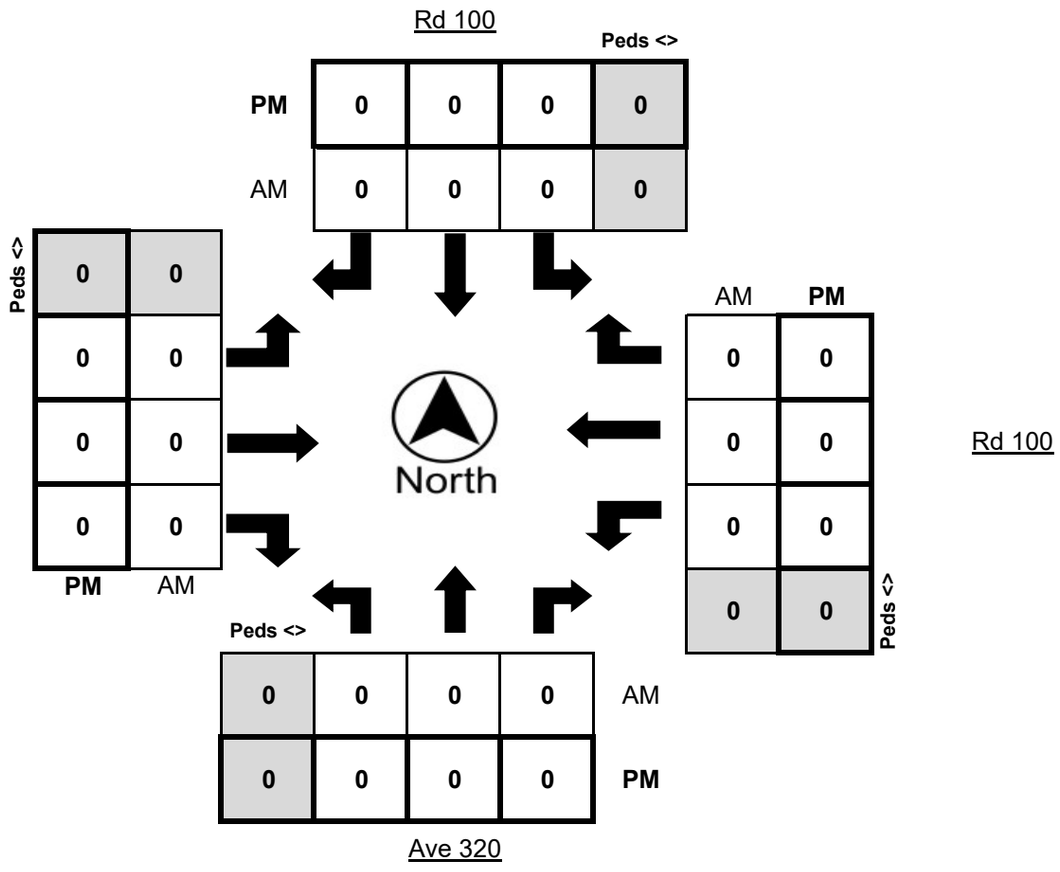
COUNTY Tulare **LONGITUDE** -119.3502

COLLECTION DATE Tuesday, June 28, 2022 **WEATHER** Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

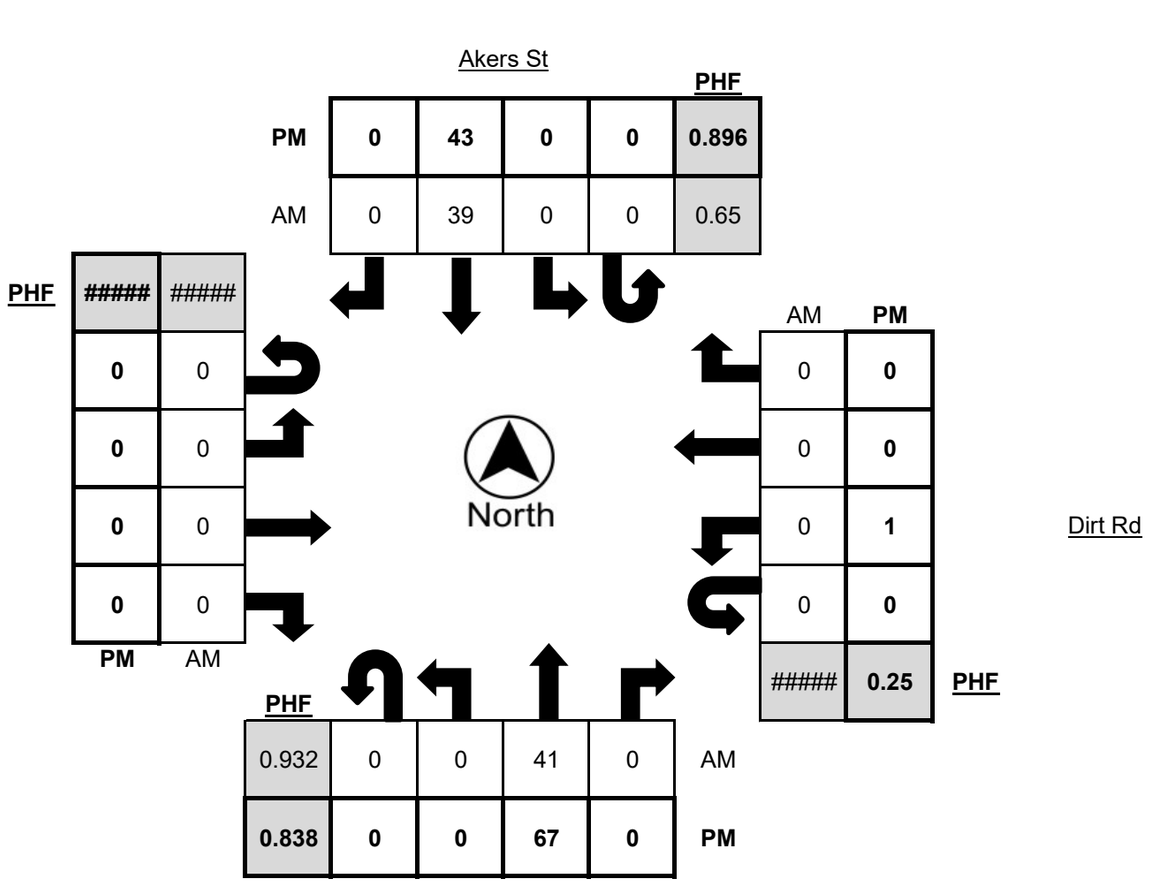
Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

LOCATION Akers St @ River Way Dr (Dirt)
LATITUDE 36.3637
COUNTY Tulare
LONGITUDE -119.3502
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
6:00 AM - 6:15 AM	0	0	5	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	6	0	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	8	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	1	0	5	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	11	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	10	0	0	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	10	0	0	0	0	15	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	7	0	0	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	11	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	7	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	6	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	7	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	7	0	1	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	10	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	8	0	1	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	8	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	5	0	0	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	6	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	5	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	9	0	0	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	5	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	5	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	7	0	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0
1:00 PM - 1:15 PM	0	0	10	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	3	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	6	0	1	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	8	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	10	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	9	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	17	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	6	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	8	0	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	11	0	0	0	0	7	0	0	0	0	0	0	0	0	1	0	0	0
3:30 PM - 3:45 PM	0	0	14	0	0	0	0	14	0	2	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	6	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	10	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	5	0	2	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	12	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	18	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	20	0	0	0	0	8	0	0	0	0	0	0	0	0	1	0	0	0
5:15 PM - 5:30 PM	0	0	17	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	4	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	5	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	4	0	0	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	10	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	2	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	2	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	6	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	442	2	7	1	2	407	0	8	0	0	0	0	0	0	2	0	1	0

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:00 AM - 8:00 AM	0	0	41	0	0	0	0	39	0	2	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	67	0	0	0	0	43	0	0	0	0	0	0	0	0	1	0	0	0

	PHF	Trucks
AM	0.800	2.5%
PM	0.925	0.0%



Metro Traffic Data Inc.
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Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

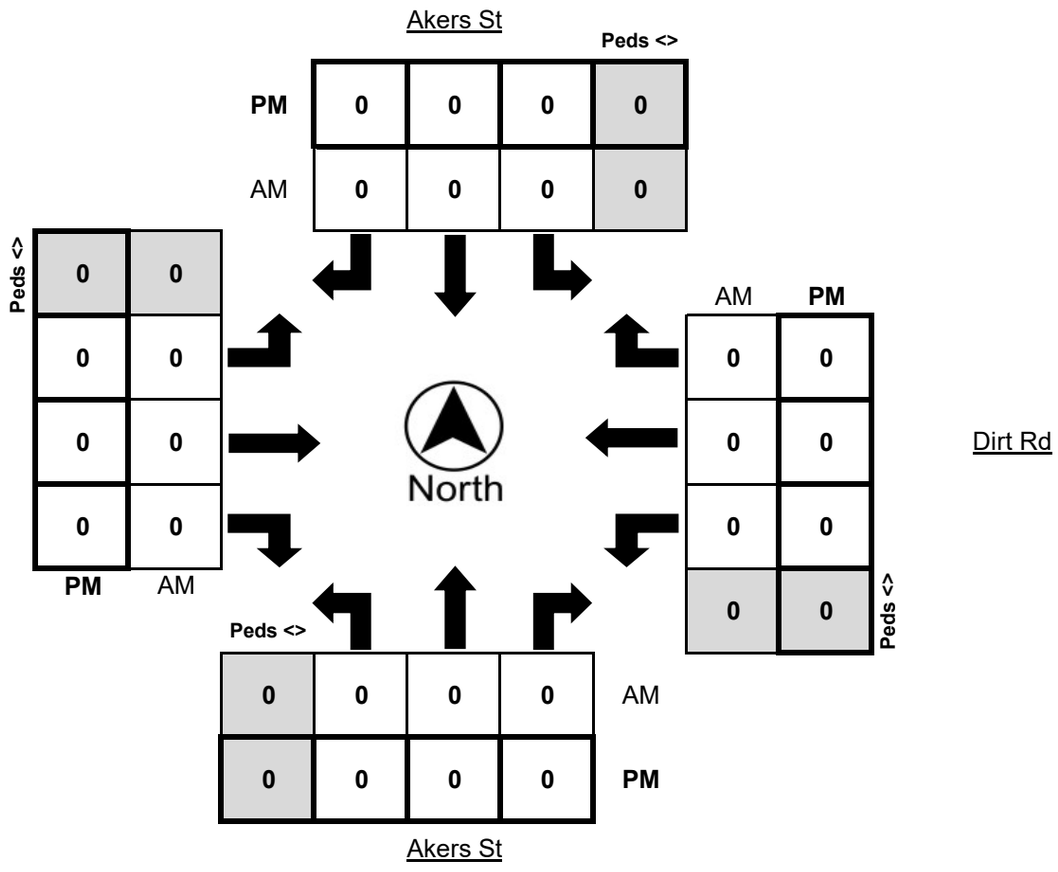
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

LOCATION Akers St @ River Way Dr (Dirt)
LATITUDE 36.3637
COUNTY Tulare
LONGITUDE -119.3502
COLLECTION DATE Tuesday, June 28, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



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Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

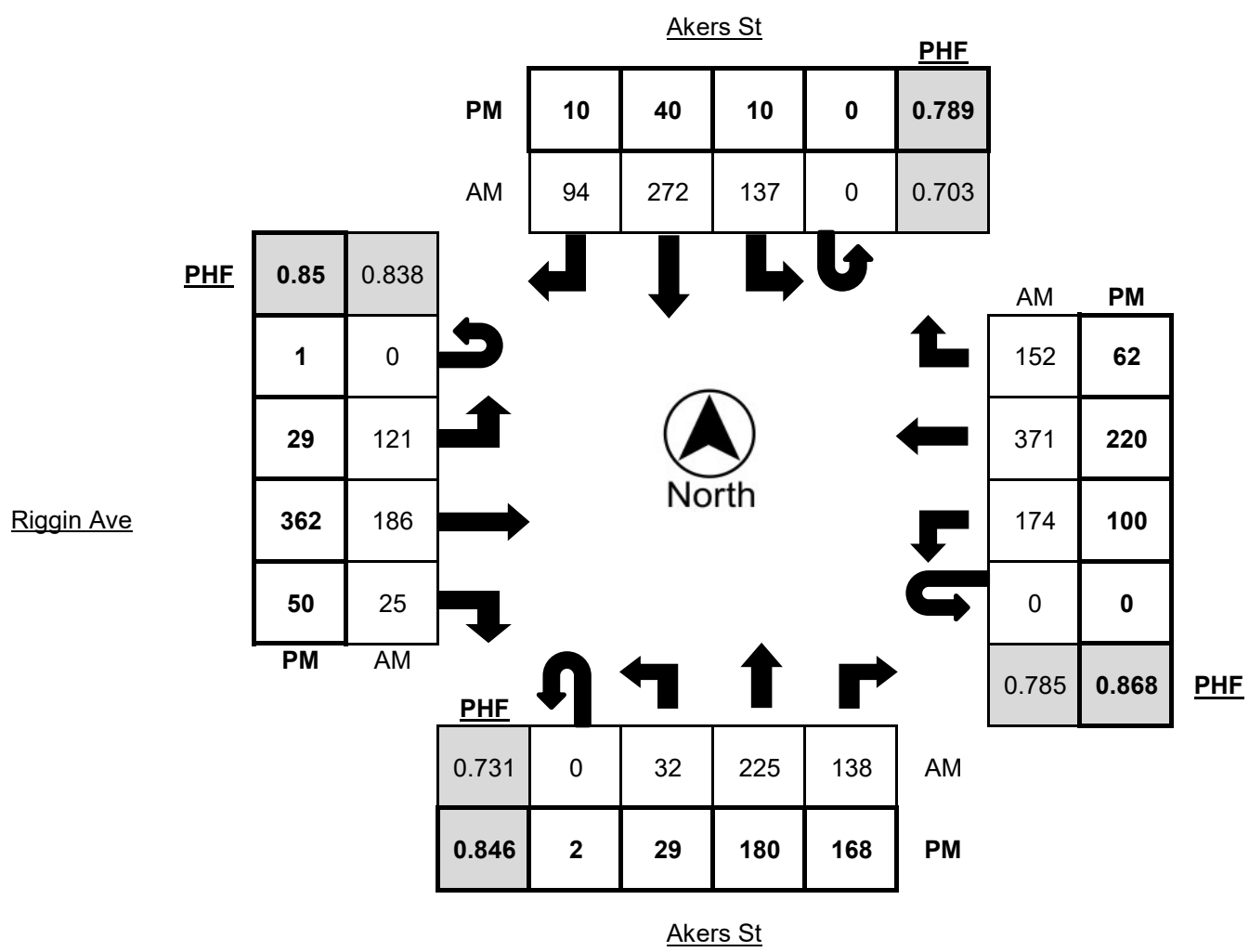
LOCATION Akers St @ Riggin Ave
LATITUDE 36.3566
COUNTY Tulare
LONGITUDE -119.3500
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	1	11	27	19	0	0	5	23	12	0	0	14	37	5	3	0	28	66	14	3
7:15 AM - 7:30 AM	1	9	32	16	1	0	12	30	10	0	0	7	38	7	1	0	33	93	13	3
7:30 AM - 7:45 AM	0	8	28	28	1	0	4	52	11	2	0	14	40	3	2	0	46	91	28	4
7:45 AM - 8:00 AM	0	11	60	30	0	0	38	62	16	0	0	32	43	7	1	0	57	124	41	3
8:00 AM - 8:15 AM	0	4	93	38	2	0	46	94	39	2	0	48	42	9	4	0	46	88	63	2
8:15 AM - 8:30 AM	0	9	44	42	1	0	49	64	28	2	0	27	61	6	5	0	25	68	20	2
8:30 AM - 8:45 AM	2	6	15	20	0	0	5	15	8	1	0	6	43	5	1	0	26	61	5	5
8:45 AM - 9:00 AM	2	5	18	18	1	0	3	11	4	1	0	4	37	4	2	0	18	50	5	5
TOTAL	**6**	**63**	**317**	**211**	**6**	**0**	**162**	**351**	**128**	**8**	**0**	**152**	**341**	**46**	**19**	**0**	**279**	**641**	**189**	**27**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	4	15	49	1	0	7	8	6	0	0	3	92	11	1	0	23	54	9	2
4:15 PM - 4:30 PM	0	5	22	36	1	0	9	19	6	1	0	7	99	10	4	0	30	49	18	0
4:30 PM - 4:45 PM	2	5	30	45	0	0	5	21	2	0	0	10	94	15	5	0	26	50	5	3
4:45 PM - 5:00 PM	0	8	20	34	1	0	7	17	3	0	0	3	95	12	1	0	20	62	5	0
5:00 PM - 5:15 PM	0	11	48	53	2	0	5	10	4	0	0	5	89	12	0	0	23	53	5	5
5:15 PM - 5:30 PM	2	6	32	33	2	0	1	9	2	1	0	7	103	10	0	0	25	51	8	2
5:30 PM - 5:45 PM	0	4	46	42	0	0	2	6	2	0	1	9	101	19	0	0	28	58	24	1
5:45 PM - 6:00 PM	0	8	54	40	0	0	2	15	2	0	0	8	69	9	0	0	24	58	25	0
TOTAL	**4**	**51**	**267**	**332**	**7**	**0**	**38**	**105**	**27**	**2**	**1**	**52**	**742**	**98**	**11**	**0**	**199**	**435**	**99**	**13**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	32	225	138	4	0	137	272	94	6	0	121	186	25	12	0	174	371	152	11
5:00 PM - 6:00 PM	2	29	180	168	4	0	10	40	10	1	1	29	362	50	0	0	100	220	62	8

	PHF	Trucks
AM	0.790	1.7%
PM	0.923	1.0%



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Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

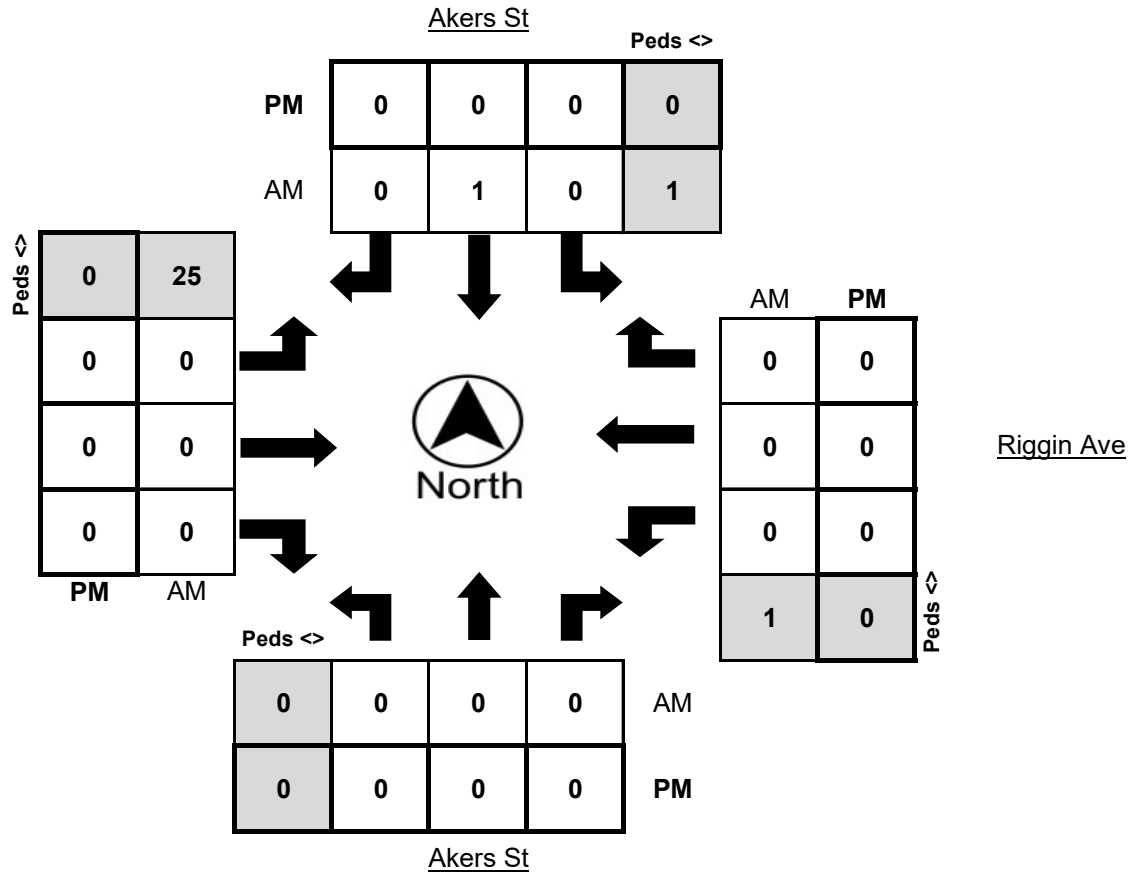
LOCATION Akers St @ Riggin Ave
LATITUDE 36.3566
COUNTY Tulare
LONGITUDE -119.3500
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:45 AM - 8:00 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	11
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**27**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	25
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	1	27
PM Peak Total	0	0



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310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

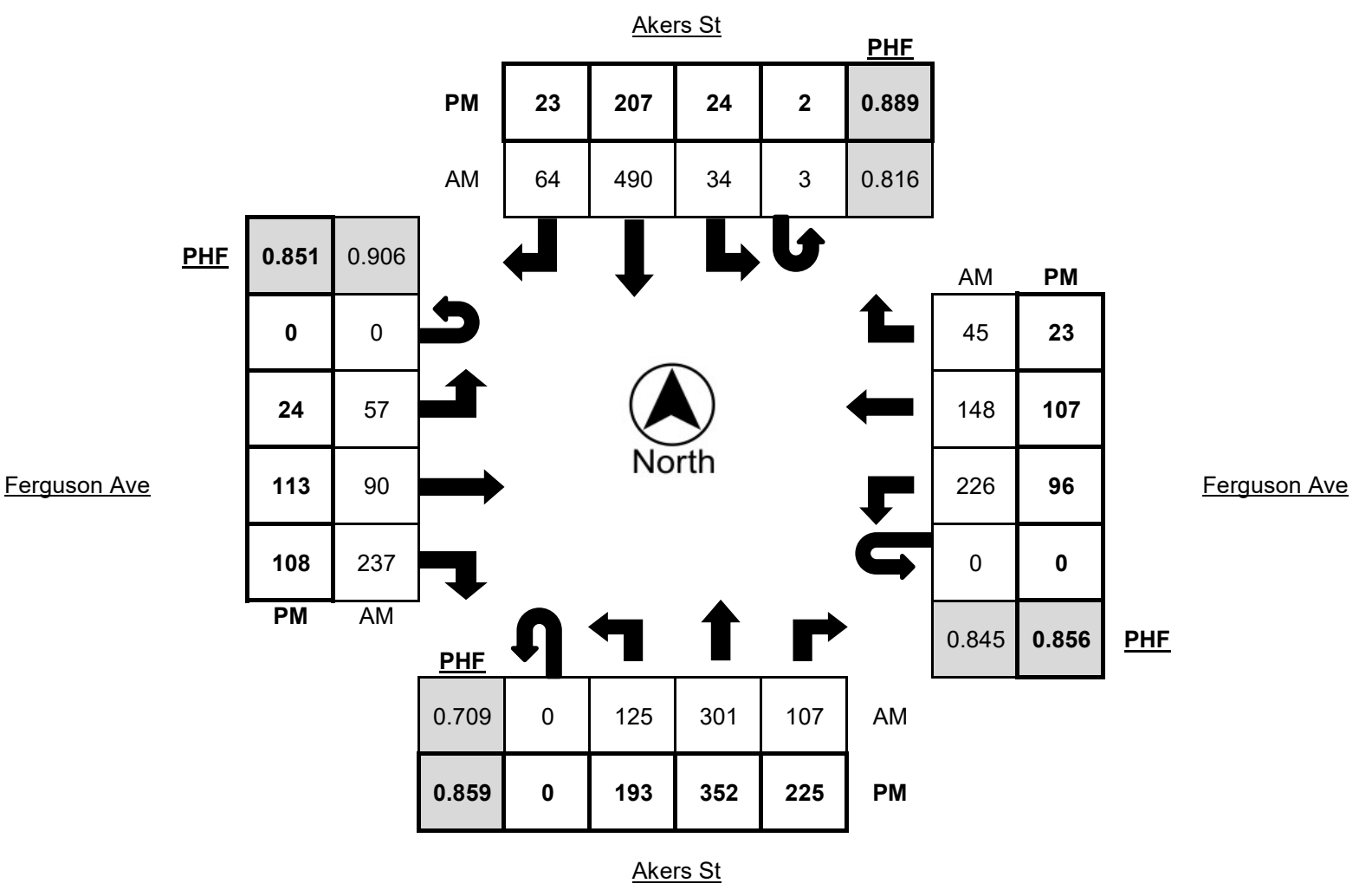
LOCATION Akers St @ Ferguson Ave
LATITUDE 36.3492
COUNTY Tulare
LONGITUDE -119.3500
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	19	52	11	1	0	5	58	6	0	0	4	14	31	1	0	17	25	2	2
7:15 AM - 7:30 AM	0	22	48	17	0	0	4	82	8	0	0	8	9	35	2	0	35	24	7	2
7:30 AM - 7:45 AM	0	19	45	21	1	1	3	119	11	2	0	9	17	61	0	0	68	30	4	1
7:45 AM - 8:00 AM	0	32	87	26	1	0	7	160	14	0	0	13	20	68	1	0	66	40	18	0
8:00 AM - 8:15 AM	0	52	100	36	3	1	14	113	25	0	0	22	32	52	2	0	50	45	18	0
8:15 AM - 8:30 AM	0	22	69	24	1	1	10	98	14	1	0	13	21	56	1	0	42	33	5	0
8:30 AM - 8:45 AM	1	19	47	24	1	1	3	50	5	1	0	2	13	29	2	0	30	20	2	1
8:45 AM - 9:00 AM	1	19	38	22	3	1	4	39	4	1	0	3	11	32	0	0	24	10	2	0
TOTAL	**2**	**204**	**486**	**181**	**11**	**5**	**50**	**719**	**87**	**5**	**0**	**74**	**137**	**364**	**9**	**0**	**332**	**227**	**58**	**6**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	1	42	80	49	3	1	4	45	6	0	0	4	37	31	0	0	15	19	4	0
4:15 PM - 4:30 PM	1	37	70	50	2	1	3	54	6	1	0	6	19	31	1	0	15	18	9	0
4:30 PM - 4:45 PM	0	44	86	44	1	1	4	57	10	1	0	7	29	36	0	0	21	28	8	0
4:45 PM - 5:00 PM	0	35	76	49	4	0	9	57	4	0	0	7	31	28	0	0	32	16	5	0
5:00 PM - 5:15 PM	0	54	104	66	4	1	2	37	3	0	0	6	29	21	1	0	24	22	4	1
5:15 PM - 5:30 PM	0	60	86	66	0	0	9	56	6	2	0	4	24	23	0	0	19	41	6	1
5:30 PM - 5:45 PM	0	37	101	49	0	0	5	46	6	1	0	3	27	34	1	0	26	23	6	0
5:45 PM - 6:00 PM	0	27	105	21	0	0	2	49	4	0	0	4	19	33	1	0	23	17	4	0
TOTAL	**2**	**336**	**708**	**394**	**14**	**4**	**38**	**401**	**45**	**5**	**0**	**41**	**215**	**237**	**4**	**0**	**175**	**184**	**46**	**2**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	125	301	107	6	3	34	490	64	3	0	57	90	237	4	0	226	148	45	1
4:30 PM - 5:30 PM	0	193	352	225	9	2	24	207	23	3	0	24	113	108	1	0	96	107	23	2

	PHF	Trucks
AM	0.860	0.7%
PM	0.936	1.0%



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Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

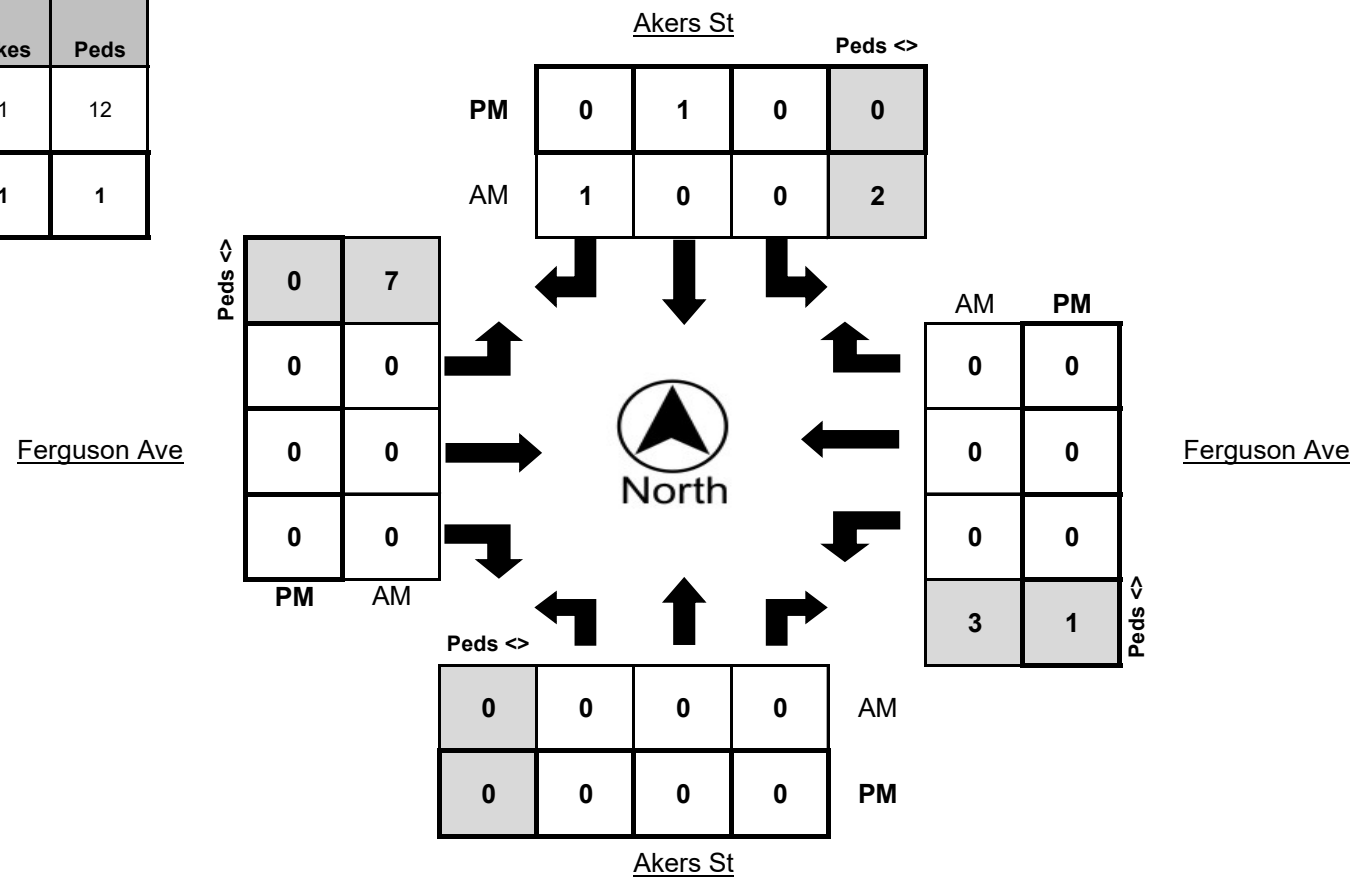
LOCATION Akers St @ Ferguson Ave
LATITUDE 36.3492
COUNTY Tulare
LONGITUDE -119.3500
COLLECTION DATE Wednesday, May 25, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	2
7:15 AM - 7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM - 7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM - 8:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
TOTAL	**0**	**1**	**1**	**4**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**10**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
TOTAL	**0**	**1**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	2	0	0	1	0	0	0	0	3	0	0	0	7
4:30 PM - 5:30 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0

	Bikes	Peds
AM Peak Total	1	12
PM Peak Total	1	1



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Turning Movement Report

Prepared For:

Kimley-Horn
401 B St, Suite 600
San Diego, CA 92101

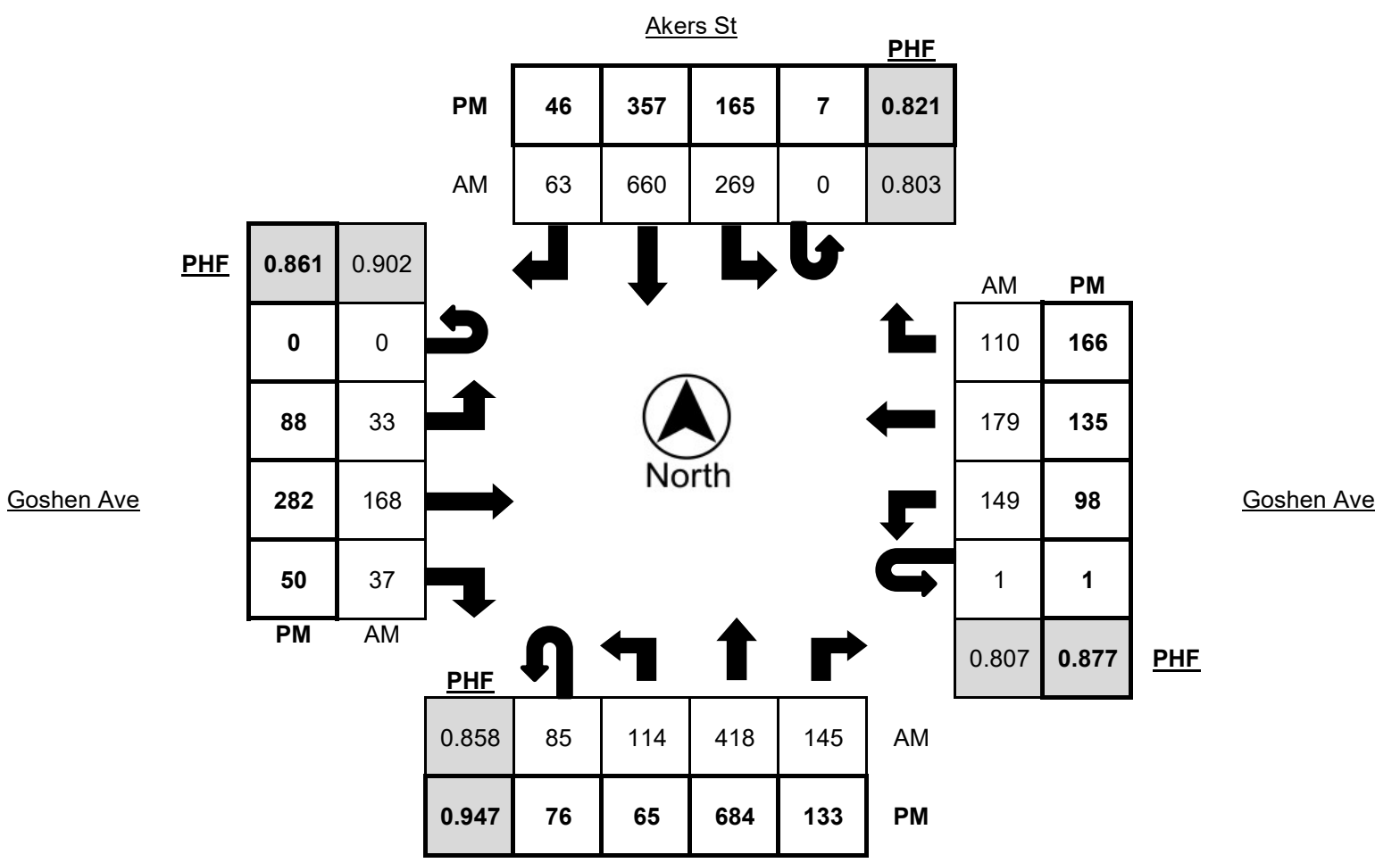
LOCATION Akers St @ Goshen Ave
LATITUDE 36.3418
COUNTY Tulare
LONGITUDE -119.3499
COLLECTION DATE Thursday, June 2, 2022
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	19	18	48	18	4	0	36	78	11	2	0	7	24	3	0	0	10	28	11	3
7:15 AM - 7:30 AM	20	15	55	10	2	0	59	103	25	0	0	7	24	9	3	0	16	38	9	4
7:30 AM - 7:45 AM	28	27	79	29	4	0	66	147	18	2	0	8	38	7	0	0	40	46	16	0
7:45 AM - 8:00 AM	20	32	113	36	5	0	89	209	11	3	0	10	39	12	2	1	37	61	37	3
8:00 AM - 8:15 AM	20	24	137	41	3	0	55	147	19	2	0	11	47	8	2	0	41	35	38	1
8:15 AM - 8:30 AM	17	31	89	39	1	0	59	157	15	4	0	4	44	10	0	0	31	37	19	2
8:30 AM - 8:45 AM	18	13	72	24	2	0	34	86	9	1	0	8	46	9	1	0	33	40	21	2
8:45 AM - 9:00 AM	19	21	64	22	0	0	31	82	7	3	0	6	32	9	1	0	23	38	13	2
TOTAL	**161**	**181**	**657**	**219**	**21**	**0**	**429**	**1009**	**115**	**17**	**0**	**61**	**294**	**67**	**9**	**1**	**231**	**323**	**164**	**17**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	15	13	125	27	1	0	29	80	5	1	0	27	106	17	2	0	27	37	25	0
4:15 PM - 4:30 PM	14	14	127	33	1	2	30	78	8	1	0	15	89	13	4	0	19	27	34	2
4:30 PM - 4:45 PM	20	16	161	35	3	1	46	90	7	0	0	25	70	23	2	0	22	26	31	0
4:45 PM - 5:00 PM	13	20	170	46	1	0	44	94	9	2	0	22	73	16	0	0	21	26	37	2
5:00 PM - 5:15 PM	18	17	178	40	0	2	30	72	5	0	0	21	87	14	2	0	29	36	49	1
5:15 PM - 5:30 PM	19	15	178	24	1	2	40	85	17	1	0	27	55	10	0	1	26	38	45	2
5:30 PM - 5:45 PM	26	13	158	23	2	3	51	106	15	1	0	18	67	10	0	0	22	35	35	3
5:45 PM - 6:00 PM	21	20	164	28	1	1	32	86	3	2	0	11	58	7	1	0	9	22	40	0
TOTAL	**146**	**128**	**1261**	**256**	**10**	**11**	**302**	**691**	**69**	**8**	**0**	**166**	**605**	**110**	**11**	**1**	**175**	**247**	**296**	**10**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	85	114	418	145	13	0	269	660	63	11	0	33	168	37	4	1	149	179	110	6
4:45 PM - 5:45 PM	76	65	684	133	4	7	165	357	46	4	0	88	282	50	2	1	98	135	166	8

	PHF	Trucks
AM	0.860	1.4%
PM	0.984	0.8%



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Turning Movement Report

Prepared For:
JLB Traffic Engineering, Inc.
516 W. Shaw Ave, Suite 103
Fresno, CA 93704

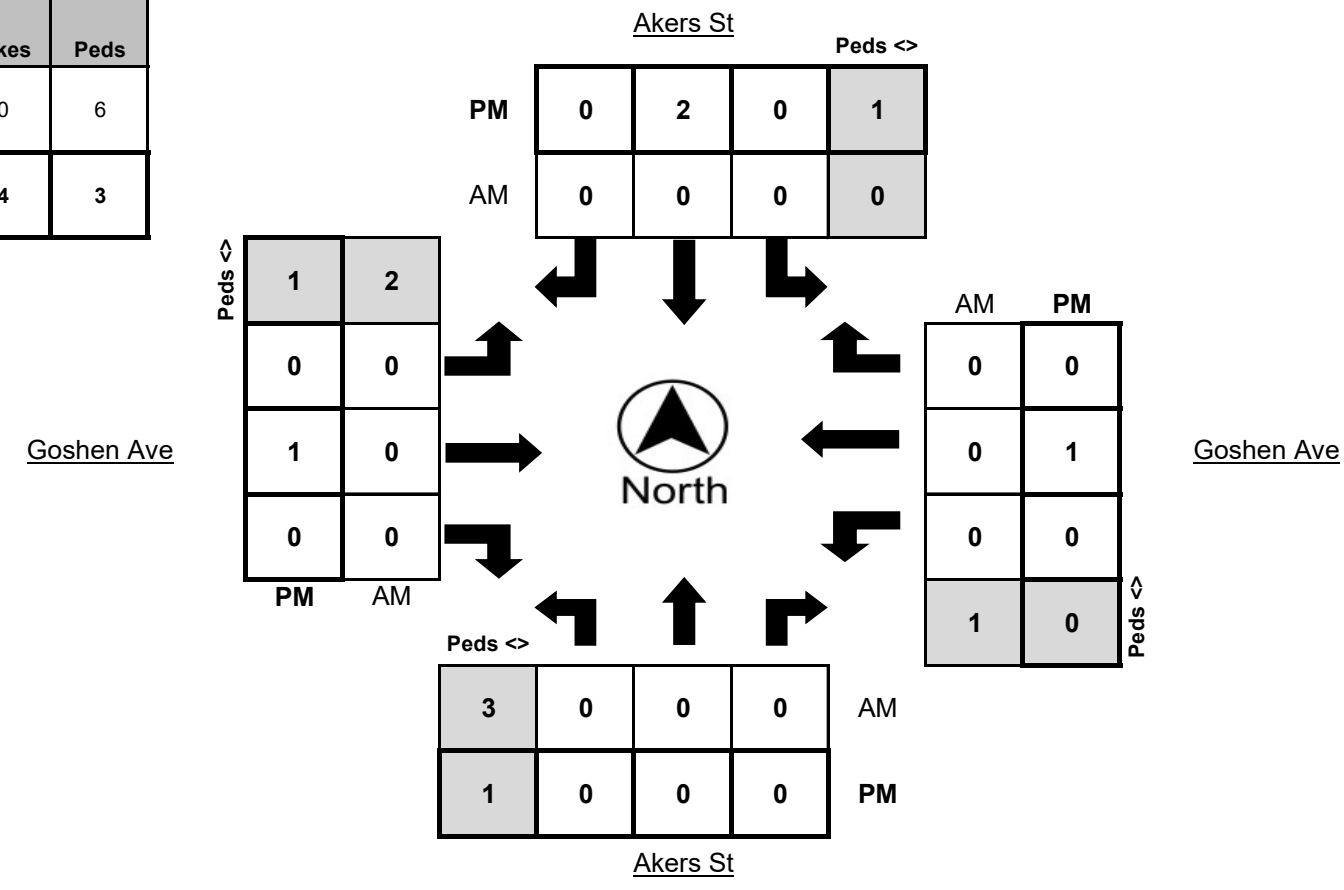
LOCATION Akers St @ Goshen Ave
LATITUDE 36.3418
COUNTY Tulare
LONGITUDE -119.3499
COLLECTION DATE Thursday, June 2, 2022
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	1
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
8:45 AM - 9:00 AM	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0
TOTAL	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**4**	**0**	**0**	**0**	**2**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM - 4:30 PM	1	0	0	1	0	0	0	1	0	1	0	2	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	1
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
TOTAL	**1**	**0**	**0**	**3**	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**3**	**0**	**2**	**0**	**2**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	2
4:45 PM - 5:45 PM	0	0	0	1	0	2	0	1	0	1	0	0	0	1	0	1

	Bikes	Peds
AM Peak Total	0	6
PM Peak Total	4	3



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24 Hour Volume Report

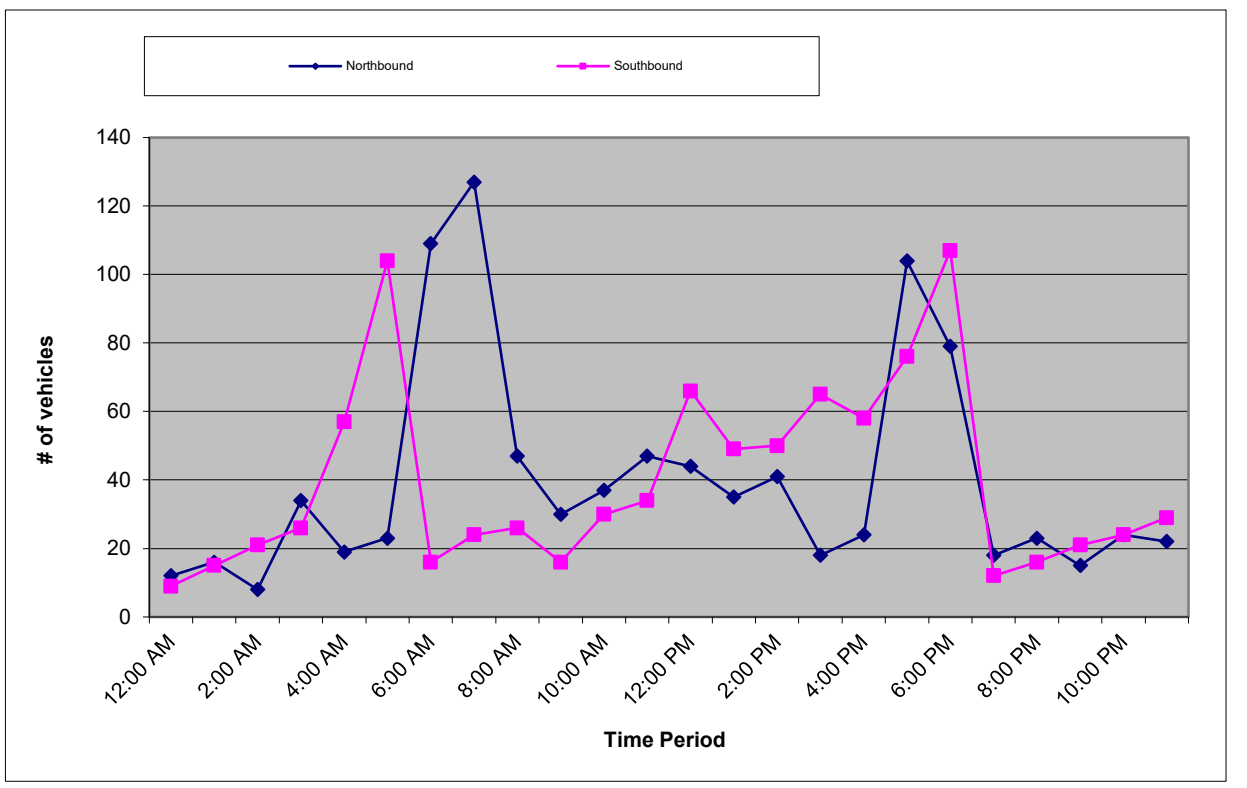
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Kelsey St
SEGMENT North of Riggin Ave
COLLECTION DATE Wednesday, May 25, 2022
NUMBER OF LANES 2

LATITUDE 36.358788
LONGITUDE -119.385763
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	0	8	2	2	**12**	2	4	2	1	**9**	**21**
1:00 AM	5	2	5	4	**16**	6	3	5	1	**15**	**31**
2:00 AM	4	0	1	3	**8**	1	10	8	2	**21**	**29**
3:00 AM	1	4	15	14	**34**	4	3	14	5	**26**	**60**
4:00 AM	0	4	4	11	**19**	22	3	22	10	**57**	**76**
5:00 AM	4	6	5	8	**23**	65	21	16	2	**104**	**127**
6:00 AM	10	12	39	48	**109**	10	4	1	1	**16**	**125**
7:00 AM	53	49	15	10	**127**	1	15	7	1	**24**	**151**
8:00 AM	13	10	11	13	**47**	3	3	11	9	**26**	**73**
9:00 AM	8	9	8	5	**30**	8	1	5	2	**16**	**46**
10:00 AM	10	7	9	11	**37**	7	5	10	8	**30**	**67**
11:00 AM	7	19	8	13	**47**	9	12	9	4	**34**	**81**
12:00 PM	5	22	8	9	**44**	30	9	14	13	**66**	**110**
1:00 PM	12	7	9	7	**35**	11	15	19	4	**49**	**84**
2:00 PM	6	9	6	20	**41**	9	10	26	5	**50**	**91**
3:00 PM	8	2	5	3	**18**	14	20	10	21	**65**	**83**
4:00 PM	4	7	5	8	**24**	22	12	14	10	**58**	**82**
5:00 PM	14	17	28	45	**104**	13	8	32	23	**76**	**180**
6:00 PM	27	42	8	2	**79**	78	16	6	7	**107**	**186**
7:00 PM	3	5	6	4	**18**	4	6	1	1	**12**	**30**
8:00 PM	7	6	3	7	**23**	7	2	4	3	**16**	**39**
9:00 PM	7	1	4	3	**15**	5	3	12	1	**21**	**36**
10:00 PM	2	7	10	5	**24**	2	11	4	7	**24**	**48**
11:00 PM	2	8	6	6	**22**	17	4	5	3	**29**	**51**
Total	**50.1%**				**956**	**49.9%**				**951**	
	1907										

AM% 46.5% **AM Peak** **AM P.H.F.**
PM% 53.5% **PM Peak** **PM P.H.F.**



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24 Hour Volume Report

Prepared For: **Kimley-Horn**
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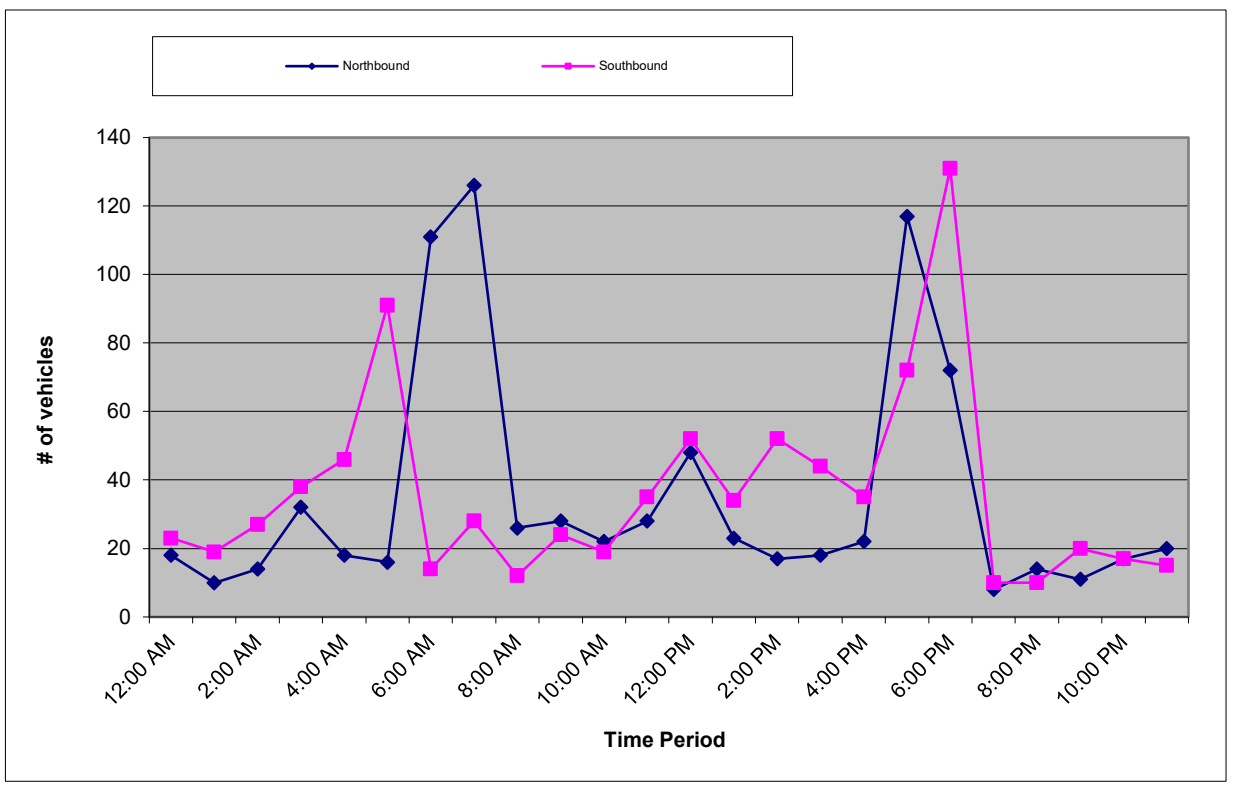
STREET Kelsey St
SEGMENT North of Riggin Ave
COLLECTION DATE Thursday, May 26, 2022
NUMBER OF LANES 2

LATITUDE 36.358788
LONGITUDE -119.385763
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	0	11	2	5	**18**	5	5	10	3	**23**	**41**
1:00 AM	4	3	3	0	**10**	4	9	4	2	**19**	**29**
2:00 AM	3	0	8	3	**14**	5	5	6	11	**27**	**41**
3:00 AM	3	8	10	11	**32**	15	9	11	3	**38**	**70**
4:00 AM	1	4	6	7	**18**	5	9	21	11	**46**	**64**
5:00 AM	1	6	6	3	**16**	65	7	19	0	**91**	**107**
6:00 AM	15	11	37	48	**111**	0	2	4	8	**14**	**125**
7:00 AM	56	41	18	11	**126**	3	14	4	7	**28**	**154**
8:00 AM	12	5	3	6	**26**	5	0	4	3	**12**	**38**
9:00 AM	9	6	3	10	**28**	12	6	6	0	**24**	**52**
10:00 AM	9	1	1	11	**22**	5	4	4	6	**19**	**41**
11:00 AM	8	8	5	7	**28**	6	14	9	6	**35**	**63**
12:00 PM	15	15	9	9	**48**	21	11	12	8	**52**	**100**
1:00 PM	2	10	2	9	**23**	5	11	11	7	**34**	**57**
2:00 PM	2	5	4	6	**17**	11	9	26	6	**52**	**69**
3:00 PM	3	5	2	8	**18**	17	7	8	12	**44**	**62**
4:00 PM	8	5	5	4	**22**	6	2	10	17	**35**	**57**
5:00 PM	5	19	47	46	**117**	10	2	40	20	**72**	**189**
6:00 PM	33	30	8	1	**72**	94	18	13	6	**131**	**203**
7:00 PM	3	1	1	3	**8**	5	1	4	0	**10**	**18**
8:00 PM	4	3	2	5	**14**	0	2	6	2	**10**	**24**
9:00 PM	2	4	5	0	**11**	5	6	8	1	**20**	**31**
10:00 PM	1	7	9	0	**17**	2	8	3	4	**17**	**34**
11:00 PM	4	11	5	0	**20**	8	4	3	0	**15**	**35**
Total	**49.1%**				**836**	**50.9%**				**868**	
	1704										

AM%	**48.4%**	**AM Peak**	**211**	**6:30 am to 7:30 am**	**AM P.H.F.**	**0.89**
PM%	**51.6%**	**PM Peak**	**328**	**5:30 pm to 6:30 pm**	**PM P.H.F.**	**0.65**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

2-Day Average Count Report

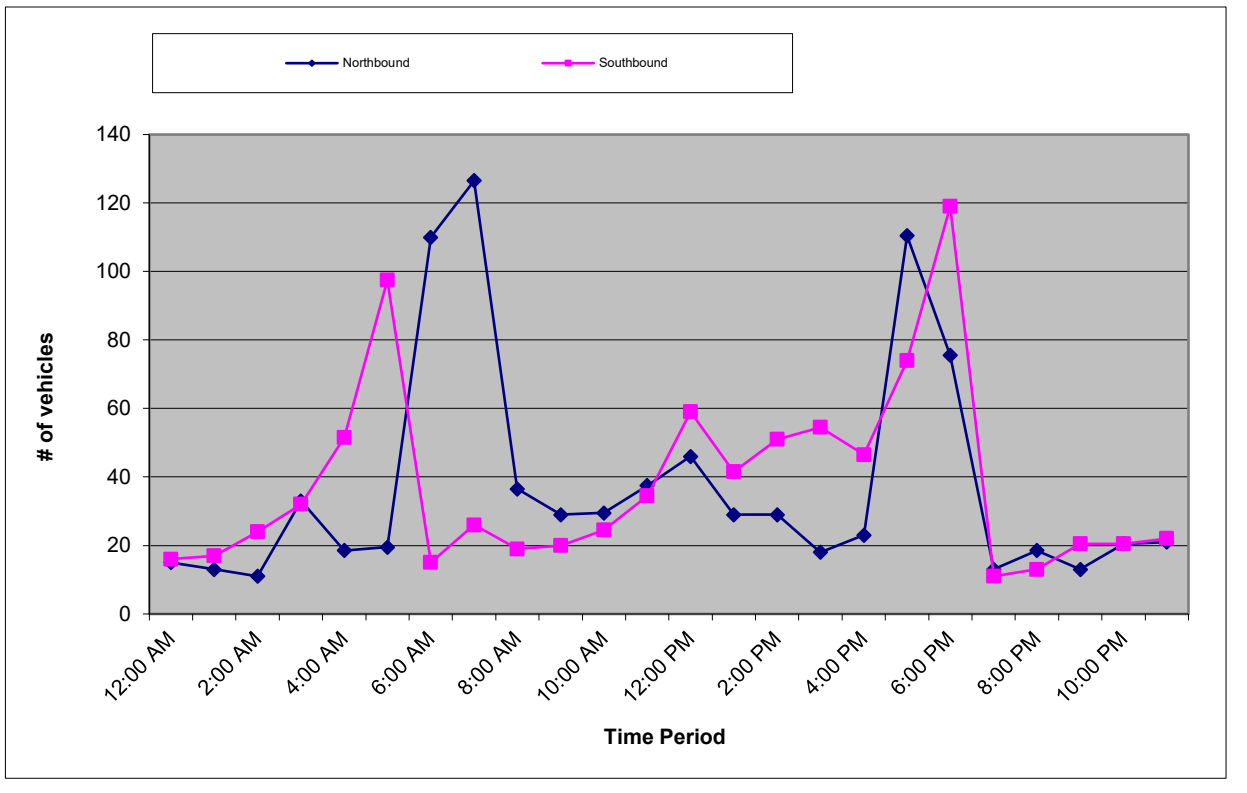
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Kelsey St
SEGMENT North of Riggin Ave
COLLECTION DATE
NUMBER OF LANES 2

LATITUDE 36.358788
LONGITUDE -119.385763
WEATHER Clear

	Northbound					Southbound					Hourly		
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**		
12:00 AM	0	9.5	2	3.5	**15**	3.5	4.5	6	2	**16**	**31**		
1:00 AM	4.5	2.5	4	2	**13**	5	6	4.5	1.5	**17**	**30**		
2:00 AM	3.5	0	4.5	3	**11**	3	7.5	7	6.5	**24**	**35**		
3:00 AM	2	6	12.5	12.5	**33**	9.5	6	12.5	4	**32**	**65**		
4:00 AM	0.5	4	5	9	**18.5**	13.5	6	21.5	10.5	**51.5**	**70**		
5:00 AM	2.5	6	5.5	5.5	**19.5**	65	14	17.5	1	**97.5**	**117**		
6:00 AM	12.5	11.5	38	48	**110**	5	3	2.5	4.5	**15**	**125**		
7:00 AM	54.5	45	16.5	10.5	**126.5**	2	14.5	5.5	4	**26**	**152.5**	**PHF**	**0.64076**
8:00 AM	12.5	7.5	7	9.5	**36.5**	4	1.5	7.5	6	**19**	**55.5**		
9:00 AM	8.5	7.5	5.5	7.5	**29**	10	3.5	5.5	1	**20**	**49**		
10:00 AM	9.5	4	5	11	**29.5**	6	4.5	7	7	**24.5**	**54**		
11:00 AM	7.5	13.5	6.5	10	**37.5**	7.5	13	9	5	**34.5**	**72**		
12:00 PM	10	18.5	8.5	9	**46**	25.5	10	13	10.5	**59**	**105**		
1:00 PM	7	8.5	5.5	8	**29**	8	13	15	5.5	**41.5**	**70.5**		
2:00 PM	4	7	5	13	**29**	10	9.5	26	5.5	**51**	**80**		
3:00 PM	5.5	3.5	3.5	5.5	**18**	15.5	13.5	9	16.5	**54.5**	**72.5**		
4:00 PM	6	6	5	6	**23**	14	7	12	13.5	**46.5**	**69.5**		
5:00 PM	9.5	18	37.5	45.5	**110.5**	11.5	5	36	21.5	**74**	**184.5**	**PHF**	**0.62755**
6:00 PM	30	36	8	1.5	**75.5**	86	17	9.5	6.5	**119**	**194.5**		
7:00 PM	3	3	3.5	3.5	**13**	4.5	3.5	2.5	0.5	**11**	**24**		
8:00 PM	5.5	4.5	2.5	6	**18.5**	3.5	2	5	2.5	**13**	**31.5**		
9:00 PM	4.5	2.5	4.5	1.5	**13**	5	4.5	10	1	**20.5**	**33.5**		
10:00 PM	1.5	7	9.5	2.5	**20.5**	2	9.5	3.5	5.5	**20.5**	**41**		
11:00 PM	3	9.5	5.5	3	**21**	12.5	4	4	1.5	**22**	**43**		
Total	**49.6%**				**896**	**50.4%**				**909.5**			
	1805.5												

AM%	**47.4%**	**AM Peak**	**211**	**6:30 am to 7:30 am**	**AM P.H.F.**	**0.89**
PM%	**52.6%**	**PM Peak**	**328**	**5:30 pm to 6:30 pm**	**PM P.H.F.**	**0.65**



Metro Traffic Data Inc.
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Hanford, CA 93230

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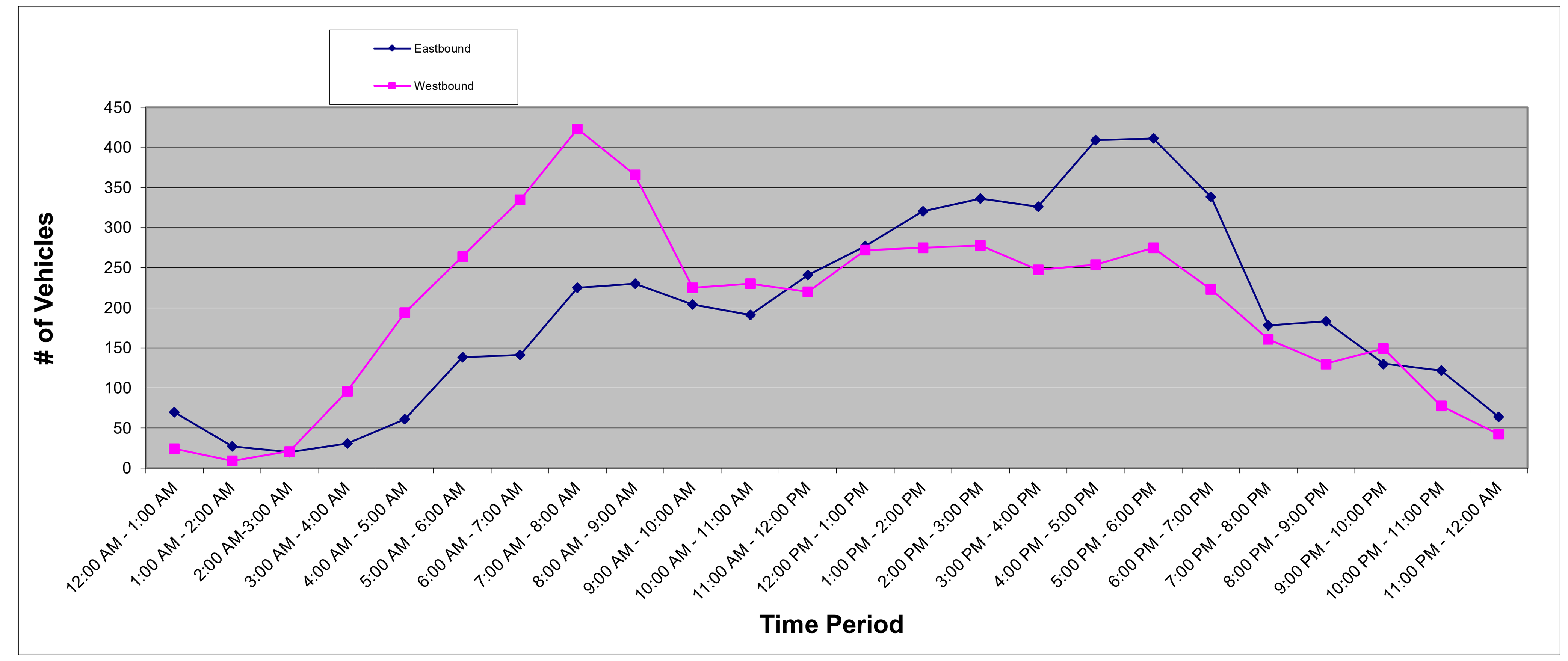
www.metrotraffic data.com

Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

Description	Riggin Ave, btwn Kelsey/Shirk
Survey Date	Wednesday, June 1, 2022
Latitude	36.3564453
Longitude	-119.3773376
Number of Lanes	2
Total Volume	9464
HV Percentage	8.4%
AM Peak Period	7:30am-8:30am
AM Peak Volume	710
AM PHF	0.93
PM Peak Period	5:15pm-6:15pm
PM Peak Volume	704
PM PHF	0.88

Class 1 - Motorcycles, 2 axles
Class 2 - Passenger cars, 2 axles
Class 3 - Pickup trucks, vans, 2 axles
Class 4 - Busses
Class 5 - Single unit, 2 axle, 6 tires
Class 6 - Single unit truck, 3 axles
Class 7 - Single unit, 4 axles
Class 8 - Double unit, < 5 axles
Class 9 - Double unit, 5 axles
Class 10 - Double unit, > 5 axles
Class 11 - Multi unit, 5 axles
Class 12 - Multi unit, 6 axles
Class 13 - Multi unit, > 6 axles
Class 14 - Unclassifiable

1st First 15 minute interval
2nd Second 15 minute interval
3rd Third 15 minute interval
4th Fourth 15 minute interval
T Hourly Total



Eastbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	**0**	30	5	15	6	**56**	4	2	2	2	**10**	0	0	0	0	**0**	0	1	0	1	**2**
1:00 AM - 2:00 AM	0	0	0	1	**1**	1	6	6	4	**17**	2	1	1	2	**6**	0	0	0	0	**0**	0	0	0	0	**0**
2:00 AM-3:00 AM	0	0	0	0	**0**	7	4	4	0	**15**	2	1	0	1	**4**	0	0	0	0	**0**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	0	0	**0**	3	7	8	5	**23**	0	0	3	3	**6**	0	0	0	0	**0**	0	0	0	0	**0**
4:00 AM - 5:00 AM	0	1	0	1	**2**	9	7	17	8	**41**	2	2	4	4	**12**	0	0	0	0	**0**	0	0	0	1	**1**
5:00 AM - 6:00 AM	0	0	0	0	**0**	46	21	22	14	**103**	6	5	6	7	**24**	0	0	0	0	**0**	0	1	1	0	**2**
6:00 AM - 7:00 AM	0	0	0	1	**1**	10	14	19	23	**66**	11	10	6	14	**41**	0	0	0	0	**0**	4	2	2	1	**9**
7:00 AM - 8:00 AM	0	0	0	0	**0**	26	26	40	41	**133**	14	14	12	17	**57**	0	0	0	0	**0**	4	1	1	3	**9**
8:00 AM - 9:00 AM	0	1	0	0	**1**	45	30	19	28	**122**	20	18	14	19	**71**	0	0	0	0	**0**	1	4	1	1	**7**
9:00 AM - 10:00 AM	0	0	0	0	**0**	31	21	34	33	**119**	17	18	12	17	**64**	0	0	0	0	**0**	0	3	3	2	**8**
10:00 AM - 11:00 AM	0	0	1	0	**1**	29	29	23	28	**109**	15	10	18	16	**59**	0	0	0	0	**0**	2	2	0	3	**7**
11:00 AM - 12:00 PM	2	0	0	0	**2**	39	25	31	41	**136**	20	21	21	21	**83**	0	0	0	0	**0**	1	0	1	4	**6**
12:00 PM - 1:00 PM	0	0	0	1	**1**	42	37	43	43	**165**	17	25	20	20	**82**	0	0	0	0	**0**	3	2	1	2	**8**
1:00 PM - 2:00 PM	0	0	0	0	**0**	43	38	62	58	**201**	17	21	30	18	**86**	0	0	0	0	**0**	1	4	2	1	**8**
2:00 PM - 3:00 PM	0	0	2	0	**2**	49	45	61	59	**214**	22	22	24	20	**88**	0	0	0	0	**0**	1	2	2	1	**6**
3:00 PM - 4:00 PM	0	0	0	1	**1**	53	44	58	50	**205**	33	21	30	18	**102**	0	0	0	0	**0**	4	1	0	2	**7**
4:00 PM - 5:00 PM	1	2	1	0	**4**	66	68	88	46	**268**	29	30	29	19	**107**	0	0	0	0	**0**	1	1	3	1	**6**
5:00 PM - 6:00 PM	0	0	0	0	**0**	85	62	76	54	**277**	33	19	23	20	**95**	0	0	0	0	**0**	0	1	2	1	**4**
6:00 PM - 7:00 PM	3	0	0	0	**3**	89	56	46	39	**230**	28	25	10	17	**80**	0	0	0	0	**0**	0	1	0	1	**2**
7:00 PM - 8:00 PM	0	1	1	0	**2**	39	41	29	22	**131**	10	9	13	5	**37**	0	0	0	0	**0**	1	2	0	1	**4**
8:00 PM - 9:00 PM	0	0	0	0	**0**	29	30	49	34	**142**	10	5	4	12	**31**	0	0	0	0	**0**	0	1	0	1	**2**
9:00 PM - 10:00 PM	0	0	1	2	**3**	17	27	25	25	**94**	13	4	7	6	**30**	0	0	0	0	**0**	0	1	0	1	**2**
10:00 PM - 11:00 PM	0	0	0	1	**1**	21	29	25	18	**93**	12	5	5	4	**26**	0	0	0	0	**0**	0	1	0	0	**1**
11:00 PM - 12:00 AM	0	0	0	0	**0**	22	13	10	10	**55**	2	3	0	4	**9**	0	0	0	0	**0**	0	0	0	0	**0**
Total	**25**					**3015**					**1210**					**0**					**101**				
Percentage	**0.5%**					**64.5%**					**25.9%**					**0.0%**					**2.2%**				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	0	**1**	0	0	0	0	**0**
1:00 AM - 2:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	1	0	1	0	**2**	0	0	0	0	**0**
2:00 AM-3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	0	**1**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**
4:00 AM - 5:00 AM	1	0	2	0	**3**	0	0	0	0	**0**	0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**
5:00 AM - 6:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	1	**2**	0	1	0	2	**3**	0	0	0	0	**0**
6:00 AM - 7:00 AM	1	1	0	0	**2**	1	0	0	0	**1**	0	1	1	1	**3**	1	5	0	0	**6**	1	0	0	0	**1**
7:00 AM - 8:00 AM	0	1	0	0	**1**	0	0	0	0	**0**	1	0	0	2	**3**	2	1	2	1	**6**	0	0	0	1	**1**
8:00 AM - 9:00 AM	0	0	1	1	**2**	0	0	0	0	**0**	0	2	0	0	**2**	1	1	2	1	**5**	0	0	0	0	**0**
9:00 AM - 10:00 AM	0	0	1	0	**1**	0	0	1	0	**1**	0	0	2	1	**3**	0	1	0	0	**1**	0	0	0	0	**0**
10:00 AM - 11:00 AM	0	0	0	1	**1**	0	0	0	0	**0**	0	0	0	1	**1**	4	1	2	0	**7**	0	1	0	0	**1**
11:00 AM - 12:00 PM	1	0	1	0	**2**	0	0	0	0	**0**	1	2	0	0	**3**	1	0	1	1	**3**	0	0	0	0	**0**
12:00 PM - 1:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	1	0	1	0	**2**	0	1	1	3	**5**	0	0	0	0	**0**
1:00 PM - 2:00 PM	0	0	0	2	**2**	0	0	0	0	**0**	3	0	1	0	**4**	1	0	1	0	**2**	0	0	1	0	**1**
2:00 PM - 3:00 PM	0	0	0	0	**0**	0	0	0	1	**1**	0	1	0	0	**1**	1	0	2	1	**4**	0	0	0	0	**0**
3:00 PM - 4:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	0	**1**	1	0	0	0	**1**	0	0	0	0	**0**
4:00 PM - 5:00 PM	1	0	0	0	**1**	0	0	1	0	**1**	1	1	3	0	**5**	1	1	0	1	**3**	0	0	0	0	**0**
5:00 PM - 6:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	2	1	2	1	**6**	0	0	1	1	**2**	0	0	0	0	**0**
6:00 PM - 7:00 PM	1	0	0	0	**1**	1	0	1	0	**2**	1	3	0	0	**4**	1	1	1	2	**5**	0	0	0	0	**0**
7:00 PM - 8:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	2	0	**2**	0	0	0	0	**0**
8:00 PM - 9:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**
9:00 PM - 10:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
10:00 PM - 11:00 PM	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
11:00 PM - 12:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
Total	**17**					**6**					**40**					**62**					**4**				
Percentage	**0.4%**					**0.1%**					**0.9%**					**1.3%**					**0.1%**				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**70**
1:00 AM - 2:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	**27**
2:00 AM-3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**20**
3:00 AM - 4:00 AM	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**31**
4:00 AM - 5:00 AM	0	0	0	1	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**61**
5:00 AM - 6:00 AM	1	0	2	1	**4**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**138**
6:00 AM - 7:00 AM	2	1	2	3	**8**	0	0	0	0	**0**	1	1	0	1	**3**	0	0	0	0	**0**	**141**
7:00 AM - 8:00 AM	0	3	3	2	**8**	2	1	0	0	**3**	0	0	1	3	**4**	0	0	0	0	**0**	**225**
8:00 AM - 9:00 AM	6	8	2	1	**17**	1	0	0	0	**1**	1	1	0	0	**2**	0	0	0	0	**0**	**230**
9:00 AM - 10:00 AM	0	1	2	2	**5**	0	0	1	0	**1**	0	0	1	0	**1**	0	0	0	0	**0**	**204**
10:00 AM - 11:00 AM	0	2	2	1	**5**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**191**
11:00 AM - 12:00 PM	2	0	1	1	**4**	0	0	0	0	**0**	1	0	1	0	**2**	0	0	0	0	**0**	**241**
12:00 PM - 1:00 PM	3	2	3	2	**10**	0	0	0	0	**0**	2	0	0	2	**4**	0	0	0	0	**0**	**277**
1:00 PM - 2:00 PM	1	0	8	3	**12**	0	0	0	0	**0**	0	0	4	0	**4**	0	0	0	0	**0**	**320**
2:00 PM - 3:00 PM	6	1	6	6	**19**	0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**	**336**
3:00 PM - 4:00 PM	4	1	1	2	**8**	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	**326**
4:00 PM - 5:00 PM	6	1	5	0	**12**	0	0	0	0	**0**	2	0	0	0	**2**	0	0	0	0	**0**	**409**
5:00 PM - 6:00 PM	11	3	5	5	**24**	0	0	0	0	**0**	1	0	0	2	**3**	0	0	0	0	**0**	**411**
6:00 PM - 7:00 PM	4	2	0	1	**7**	0	0	0	0	**0**	0	4	0	0	**4**	0	0	0	0	**0**	**338**
7:00 PM - 8:00 PM	1	0	0	1	**2**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**178**
8:00 PM - 9:00 PM	2	1	1	1	**5**	1	0	0	0	**1**	0	0	0	1	**1**	0	0	0	0	**0**	**183**
9:00 PM - 10:00 PM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**130**
10:00 PM - 11:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**122**
11:00 PM - 12:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**64**
Total	**154**					**7**					**32**					**0**					**4673**
Percentage	**3.3%**					**0.1%**					**0.7%**					**0.0%**					**100.0%**

11:45am-12:45am AM PK 272 AM PHF 0.99 4:15pm-5:15pm PM PK 433 PM PHF 0.82 HV Percent 9.1%

Westbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	1	0	0	0	**1**	8	7	4	0	**19**	0	1	1	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**
1:00 AM - 2:00 AM	0	0	0	0	**0**	3	2	1	2	**8**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
2:00 AM-3:00 AM	0	0	0	0	**0**	2	3	4	8	**17**	0	1	1	2	**4**	0	0	0	0	**0**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	0	1	**1**	7	9	20	41	**77**	0	1	6	9	**16**	0	0	0	0	**0**	0	0	0	0	**0**
4:00 AM - 5:00 AM	0	0	0	0	**0**	31	15	39	66	**151**	5	8	8	16	**37**	0	0	0	0	**0**	0	0	0	0	**0**
5:00 AM - 6:00 AM	0	0	0	0	**0**	30	39	51	53	**173**	15	19	15	32	**81**	0	0	0	0	**0**	0	1	0	0	**1**
6:00 AM - 7:00 AM	0	0	1	0	**1**	33	58	67	70	**228**	16	23	24	22	**85**	0	0	0	0	**0**	1	0	2	4	**7**
7:00 AM - 8:00 AM	0	1	2	0	**3**	64	79	75	90	**308**	17	27	19	26	**89**	0	0	0	0	**0**	2	1	1	1	**5**
8:00 AM - 9:00 AM	1	0	0	0	**1**	72	88	46	54	**260**	20	21	14	23	**78**	0	0	0	0	**0**	3	1	4	0	**8**
9:00 AM - 10:00 AM	0	1	0	0	**1**	39	35	41	31	**146**	13	23	13	10	**59**	0	0	0	0	**0**	1	3	1	2	**7**
10:00 AM - 11:00 AM	0	1	0	1	**2**	38	48	35	37	**158**	11	17	11	10	**49**	0	0	0	0	**0**	2	0	0	1	**3**
11:00 AM - 12:00 PM	2	0	0	0	**2**	29	36	40	35	**140**	11	12	15	16	**54**	0	0	0	0	**0**	2	1	2	0	**5**
12:00 PM - 1:00 PM	0	0	0	1	**1**	35	35	50	61	**181**	15	17	15	17	**64**	0	0	0	0	**0**	2	2	1	3	**8**
1:00 PM - 2:00 PM	0	0	1	0	**1**	48	42	44	50	**184**	15	12	13	16	**56**	0	0	0	0	**0**	3	0	3	1	**7**
2:00 PM - 3:00 PM	0	0	0	0	**0**	53	44	36	42	**175**	15	14	23	22	**74**	0	0	0	0	**0**	2	2	2	3	**9**
3:00 PM - 4:00 PM	1	0	3	1	**5**	36	38	45	44	**163**	15	10	9	18	**52**	0	0	0	0	**0**	4	0	5	1	**10**
4:00 PM - 5:00 PM	1	1	0	0	**2**	50	39	52	40	**181**	11	8	12	19	**50**	0	0	0	0	**0**	2	0	1	1	**4**
5:00 PM - 6:00 PM	1	1	0	1	**3**	37	56	57	53	**203**	9	14	9	8	**40**	0	0	0	0	**0**	1	0	1	1	**3**
6:00 PM - 7:00 PM	0	0	0	0	**0**	56	35	35	35	**161**	7	10	7	9	**33**	0	0	0	0	**0**	2	0	1	0	**3**
7:00 PM - 8:00 PM	0	0	0	1	**1**	26	32	30	33	**121**	5	12	7	9	**33**	0	0	0	0	**0**	1	0	1	0	**2**
8:00 PM - 9:00 PM	0	0	1	0	**1**	27	21	28	26	**102**	7	6	5	7	**25**	0	0	0	0	**0**	0	0	1	0	**1**
9:00 PM - 10:00 PM	1	1	0	0	**2**	26	35	29	24	**114**	4	7	9	7	**27**	0	0	0	0	**0**	1	0	0	1	**2**
10:00 PM - 11:00 PM	0	0	0	0	**0**	23	18	11	16	**68**	2	1	2	1	**6**	0	0	0	0	**0**	0	1	0	0	**1**
11:00 PM - 12:00 AM	0	0	0	1	**1**	12	9	5	9	**35**	1	2	0	1	**4**	0	0	0	0	**0**	0	0	0	0	**0**
Total	**29**					**3373**					**1018**					**0**					**86**				
Percentage	**0.6%**					**70.4%**					**21.2%**					**0.0%**					**1.8%**				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	1	0	1	**2**	0	0	0	0	**0**
1:00 AM - 2:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	0	**1**	0	0	0	0	**0**
2:00 AM-3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
4:00 AM - 5:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	2	1	0	**3**	0	0	0	0	**0**
5:00 AM - 6:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	1	**1**	0	1	0	0	**1**	0	0	0	0	**0**
6:00 AM - 7:00 AM	0	0	0	1	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	2	2	**4**	0	0	0	1	**1**
7:00 AM - 8:00 AM	0	0	1	1	**2**	0	0	0	0	**0**	0	1	0	1	**2**	2	1	0	1	**4**	0	0	1	0	**1**
8:00 AM - 9:00 AM	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	1	**1**	1	0	1	2	**4**	0	0	0	0	**0**
9:00 AM - 10:00 AM	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	1	1	0	**2**	0	0	0	0	**0**
10:00 AM - 11:00 AM	0	0	0	1	**1**	0	0	0	0	**0**	1	0	1	0	**2**	4	2	1	1	**8**	0	1	0	1	**2**
11:00 AM - 12:00 PM	0	1	0	0	**1**	0	0	0	0	**0**	0	1	1	1	**3**	1	2	2	1	**6**	0	0	0	0	**0**
12:00 PM - 1:00 PM	0	0	0	0	**0**	0	1	2	0	**3**	2	0	0	0	**2**	1	0	1	0	**2**	0	0	1	0	**1**
1:00 PM - 2:00 PM	0	0	0	0	**0**	1	1	0	0	**2**	0	1	1	1	**3**	1	0	2	1	**4**	0	0	1	0	**1**
2:00 PM - 3:00 PM	1	0	0	0	**1**	0	0	1	1	**2**	0	1	2	1	**4**	0	0	2	4	**6**	0	0	0	0	**0**
3:00 PM - 4:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	1	0	1	**2**	0	1	0	0	**1**	0	0	1	0	**1**
4:00 PM - 5:00 PM	0	0	0	1	**1**	0	0	0	0	**0**	1	1	1	0	**3**	2	1	0	0	**3**	0	0	0	0	**0**
5:00 PM - 6:00 PM	0	0	0	1	**1**	1	1	0	0	**2**	0	0	2	0	**2**	1	2	4	1	**8**	0	0	0	0	**0**
6:00 PM - 7:00 PM	1	0	1	2	**4**	0	0	0	1	**1**	1	1	1	1	**4**	2	1	0	1	**4**	0	1	0	0	**1**
7:00 PM - 8:00 PM	0	0	0	0	**0**	1	1	0	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	0	**1**
8:00 PM - 9:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
9:00 PM - 10:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	3	0	**3**	0	0	0	0	**0**
10:00 PM - 11:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**
11:00 PM - 12:00 AM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**
Total	**16**					**12**					**29**					**68**					**9**				
Percentage	**0.3%**					**0.3%**					**0.6%**					**1.4%**					**0.2%**				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**24**
1:00 AM - 2:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**9**
2:00 AM-3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**21**
3:00 AM - 4:00 AM	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**96**
4:00 AM - 5:00 AM	0	0	1	2	**3**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**194**
5:00 AM - 6:00 AM	1	2	1	3	**7**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**264**
6:00 AM - 7:00 AM	3	1	2	1	**7**	0	0	0	1	**1**	0	0	0	0	**0**	0	0	0	0	**0**	**335**
7:00 AM - 8:00 AM	1	3	3	1	**8**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	**423**
8:00 AM - 9:00 AM	3	4	1	2	**10**	1	0	1	0	**2**	1	0	0	0	**1**	0	0	0	0	**0**	**366**
9:00 AM - 10:00 AM	0	4	2	2	**8**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	**225**
10:00 AM - 11:00 AM	1	0	2	1	**4**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	**230**
11:00 AM - 12:00 PM	1	3	1	1	**6**	0	0	0	0	**0**	1	1	0	1	**3**	0	0	0	0	**0**	**220**
12:00 PM - 1:00 PM	0	3	5	1	**9**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	**272**
1:00 PM - 2:00 PM	3	1	5	6	**15**	0	0	0	0	**0**	0	0	1	1	**2**	0	0	0	0	**0**	**275**
2:00 PM - 3:00 PM	3	2	1	0	**6**	0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**	**278**
3:00 PM - 4:00 PM	2	3	3	2	**10**	0	1	0	0	**1**	0	0	1	1	**2**	0	0	0	0	**0**	**247**
4:00 PM - 5:00 PM	1	3	6	0	**10**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**254**
5:00 PM - 6:00 PM	1	4	3	2	**10**	0	0	0	0	**0**	0	0	2	1	**3**	0	0	0	0	**0**	**275**
6:00 PM - 7:00 PM	4	5	0	1	**10**	0	0	0	0	**0**	0	1	0	1	**2**	0	0	0	0	**0**	**223**
7:00 PM - 8:00 PM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**161**
8:00 PM - 9:00 PM	0	0	0	1	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**130**
9:00 PM - 10:00 PM	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**149**
10:00 PM - 11:00 PM	1	0	0	1	**2**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**78**
11:00 PM - 12:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**42**
Total	**129**					**4**					**18**					**0**					**4791**
Percentage	**2.7%**					**0.1%**					**0.4%**					**0.0%**					**100.0%**

7:30am-8:30am AM PK 441 AM PHF 0.91 1:30pm-2:30pm PM PK 284 PM PHF 0.93 HV Percent 7.7%

Metro Traffic Data Inc.

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

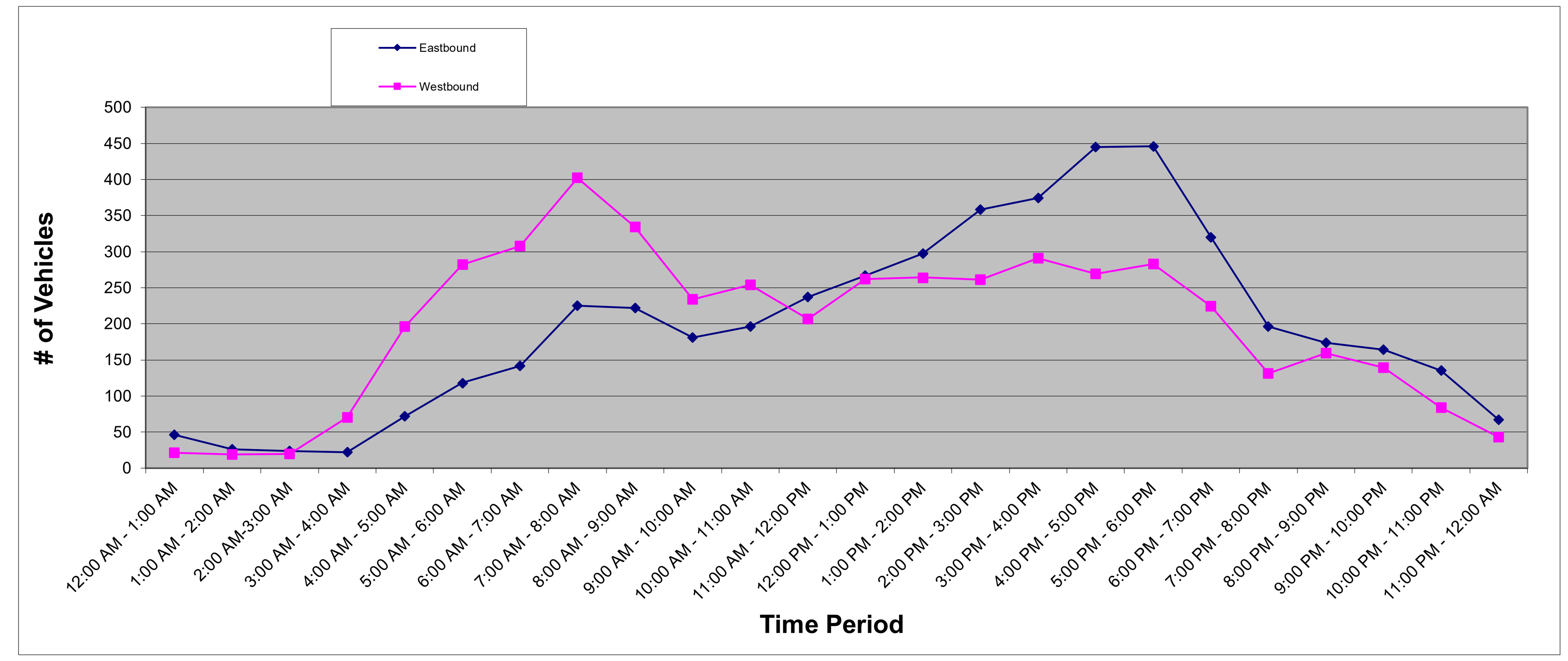
800-975-6938 Phone/Fax
www.metrotraffic data.com

Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

Description	Riggin Ave, btwn Kelsey/Shirk
Survey Date	Thursday, June 2, 2022
Latitude	36.356445
Longitude	-119.3773376
Number of Lanes	2
Total Volume	9511
HV Percentage	8.9%
AM Peak Period	7:30am-8:30am
AM Peak Volume	648
AM PHF	0.93
PM Peak Period	5:15pm-6:15pm
PM Peak Volume	746
PM PHF	0.96

Class 1 - Motorcycles, 2 axles
Class 2 - Passenger cars, 2 axles
Class 3 - Pickup trucks, vans, 2 axles
Class 4 - Busses
Class 5 - Single unit, 2 axle, 6 tires
Class 6 - Single unit truck, 3 axles
Class 7 - Single unit, 4 axles
Class 8 - Double unit, < 5 axles
Class 9 - Double unit, 5 axles
Class 10 - Double unit, > 5 axles
Class 11 - Multi unit, 5 axles
Class 12 - Multi unit, 6 axles
Class 13 - Multi unit, > 6 axles
Class 14 - Unclassifiable

1st First 15 minute interval
2nd Second 15 minute interval
3rd Third 15 minute interval
4th Fourth 15 minute interval
T Hourly Total



Eastbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	**0**	11	9	9	5	**34**	3	3	3	3	**12**	0	0	0	0	**0**	0	0	0	0	**0**
1:00 AM - 2:00 AM	0	0	0	0	**0**	3	5	3	5	**16**	3	3	0	0	**6**	0	0	0	0	**0**	0	0	0	1	**1**
2:00 AM-3:00 AM	0	0	0	0	**0**	6	8	4	2	**20**	1	0	2	0	**3**	0	0	0	0	**0**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	0	0	**0**	4	8	2	3	**17**	0	2	2	0	**4**	0	0	0	0	**0**	0	0	0	0	**0**
4:00 AM - 5:00 AM	0	0	0	0	**0**	10	5	23	11	**49**	2	7	6	3	**18**	0	0	0	0	**0**	0	0	0	0	**0**
5:00 AM - 6:00 AM	0	1	0	0	**1**	40	15	18	10	**83**	4	8	5	9	**26**	0	0	0	0	**0**	0	0	2	0	**2**
6:00 AM - 7:00 AM	0	0	0	1	**1**	15	13	21	19	**68**	8	11	11	19	**49**	0	0	0	0	**0**	1	1	1	1	**4**
7:00 AM - 8:00 AM	0	0	0	0	**0**	34	20	37	45	**136**	14	11	13	14	**52**	0	0	0	0	**0**	2	1	2	2	**7**
8:00 AM - 9:00 AM	0	0	0	0	**0**	47	34	17	27	**125**	22	16	13	12	**63**	0	0	0	0	**0**	3	1	1	3	**8**
9:00 AM - 10:00 AM	1	0	0	0	**1**	17	16	18	33	**84**	16	17	17	17	**67**	0	0	0	0	**0**	2	3	4	0	**9**
10:00 AM - 11:00 AM	0	0	0	0	**0**	28	22	26	30	**106**	16	11	20	23	**70**	0	0	0	0	**0**	2	1	0	3	**6**
11:00 AM - 12:00 PM	2	0	0	0	**2**	23	40	29	40	**132**	15	16	27	23	**81**	0	0	0	0	**0**	1	3	0	4	**8**
12:00 PM - 1:00 PM	0	0	0	0	**0**	31	45	37	38	**151**	11	33	20	23	**87**	0	0	0	0	**0**	1	2	1	0	**4**
1:00 PM - 2:00 PM	0	0	0	0	**0**	40	42	55	47	**184**	19	16	26	19	**80**	0	0	0	0	**0**	0	1	0	1	**2**
2:00 PM - 3:00 PM	0	0	0	1	**1**	56	46	57	69	**228**	17	17	33	28	**95**	0	0	0	0	**0**	2	4	1	2	**9**
3:00 PM - 4:00 PM	0	0	2	0	**2**	46	53	67	58	**224**	27	33	33	22	**115**	0	1	0	0	**1**	3	2	2	2	**9**
4:00 PM - 5:00 PM	2	1	0	1	**4**	61	81	73	67	**282**	24	43	30	31	**128**	1	0	0	0	**1**	1	1	0	3	**5**
5:00 PM - 6:00 PM	0	2	0	0	**2**	72	73	87	73	**305**	28	26	18	34	**106**	0	0	0	0	**0**	0	1	0	4	**5**
6:00 PM - 7:00 PM	3	0	1	0	**4**	82	59	39	38	**218**	28	12	18	11	**69**	0	0	0	0	**0**	1	2	1	2	**6**
7:00 PM - 8:00 PM	0	1	0	0	**1**	39	38	26	39	**142**	7	14	10	8	**39**	0	0	0	0	**0**	0	2	0	1	**3**
8:00 PM - 9:00 PM	0	0	0	0	**0**	30	36	38	33	**137**	5	7	8	6	**26**	0	0	0	0	**0**	0	1	0	1	**2**
9:00 PM - 10:00 PM	1	0	0	1	**2**	36	29	25	27	**117**	14	10	7	6	**37**	0	0	0	0	**0**	0	1	0	1	**2**
10:00 PM - 11:00 PM	0	0	0	0	**0**	22	23	34	27	**106**	7	7	7	7	**28**	0	0	0	0	**0**	0	1	0	0	**1**
11:00 PM - 12:00 AM	0	0	0	0	**0**	15	14	5	19	**53**	3	4	0	6	**13**	0	0	0	0	**0**	0	0	0	0	**0**
Total	**21**					**3017**					**1274**					**2**					**93**				
Percentage	**0.4%**					**63.5%**					**26.8%**					**0.0%**					**2.0%**				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
1:00 AM - 2:00 AM	1	1	0	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**
2:00 AM-3:00 AM	0	0	1	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**
4:00 AM - 5:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	1	1	0	**2**	0	0	1	0	**1**
5:00 AM - 6:00 AM	0	0	0	1	**1**	0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	1	**1**	0	0	0	0	**0**
6:00 AM - 7:00 AM	0	1	0	0	**1**	0	2	1	0	**3**	1	1	1	0	**3**	2	1	1	1	**5**	0	0	0	0	**0**
7:00 AM - 8:00 AM	4	0	0	1	**5**	0	0	0	1	**1**	1	4	1	2	**8**	0	2	1	0	**3**	1	0	0	0	**1**
8:00 AM - 9:00 AM	0	0	0	2	**2**	0	1	0	1	**2**	3	2	0	2	**7**	0	0	0	1	**1**	0	0	0	0	**0**
9:00 AM - 10:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	1	2	2	1	**6**	1	2	2	0	**5**	0	0	0	0	**0**
10:00 AM - 11:00 AM	0	0	0	0	**0**	0	0	0	1	**1**	0	0	1	0	**1**	1	0	0	2	**3**	0	0	0	1	**1**
11:00 AM - 12:00 PM	0	1	2	1	**4**	0	0	0	0	**0**	1	0	2	1	**4**	0	1	0	1	**2**	0	0	0	0	**0**
12:00 PM - 1:00 PM	1	1	0	0	**2**	0	0	0	0	**0**	1	1	1	1	**4**	3	1	1	1	**6**	0	0	0	0	**0**
1:00 PM - 2:00 PM	0	0	0	1	**1**	0	0	0	0	**0**	1	0	1	0	**2**	3	1	2	5	**11**	0	0	0	0	**0**
2:00 PM - 3:00 PM	2	0	1	0	**3**	0	0	0	0	**0**	1	1	1	1	**4**	1	2	1	3	**7**	0	0	0	0	**0**
3:00 PM - 4:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	2	2	2	**6**	1	0	1	1	**3**	0	0	0	0	**0**
4:00 PM - 5:00 PM	0	0	1	1	**2**	0	0	0	1	**1**	1	0	0	1	**2**	1	1	0	0	**2**	0	0	1	0	**1**
5:00 PM - 6:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	1	**2**	2	0	1	0	**3**	0	0	0	1	**1**
6:00 PM - 7:00 PM	2	0	0	0	**2**	0	0	0	0	**0**	2	1	1	1	**5**	1	1	0	1	**3**	0	0	0	0	**0**
7:00 PM - 8:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	1	0	0	**1**	1	0	0	0	**1**	0	0	0	0	**0**
8:00 PM - 9:00 PM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	1	1	0	0	**2**	0	0	0	0	**0**
9:00 PM - 10:00 PM	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**
10:00 PM - 11:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
11:00 PM - 12:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
Total	**28**					**8**					**56**					**63**					**5**				
Percentage	**0.6%**					**0.2%**					**1.2%**					**1.3%**					**0.1%**				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**46**
1:00 AM - 2:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**26**
2:00 AM-3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**24**
3:00 AM - 4:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**22**
4:00 AM - 5:00 AM	1	0	1	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**72**
5:00 AM - 6:00 AM	1	0	1	0	**2**	0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**	**118**
6:00 AM - 7:00 AM	0	0	2	3	**5**	0	0	0	0	**0**	0	2	0	1	**3**	0	0	0	0	**0**	**142**
7:00 AM - 8:00 AM	1	3	2	3	**9**	0	0	0	0	**0**	1	0	1	1	**3**	0	0	0	0	**0**	**225**
8:00 AM - 9:00 AM	6	2	1	1	**10**	0	0	0	0	**0**	3	1	0	0	**4**	0	0	0	0	**0**	**222**
9:00 AM - 10:00 AM	2	1	1	3	**7**	1	0	1	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	**181**
10:00 AM - 11:00 AM	1	3	1	2	**7**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	**196**
11:00 AM - 12:00 PM	1	0	0	2	**3**	0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**	**237**
12:00 PM - 1:00 PM	4	4	1	2	**11**	0	0	0	1	**1**	0	0	1	0	**1**	0	0	0	0	**0**	**267**
1:00 PM - 2:00 PM	4	1	7	1	**13**	0	0	0	0	**0**	0	2	1	1	**4**	0	0	0	0	**0**	**297**
2:00 PM - 3:00 PM	1	1	4	3	**9**	0	0	0	0	**0**	1	0	0	1	**2**	0	0	0	0	**0**	**358**
3:00 PM - 4:00 PM	4	3	3	1	**11**	0	0	0	0	**0**	0	2	0	1	**3**	0	0	0	0	**0**	**374**
4:00 PM - 5:00 PM	3	0	6	6	**15**	0	0	0	0	**0**	0	0	0	2	**2**	0	0	0	0	**0**	**445**
5:00 PM - 6:00 PM	3	6	2	4	**15**	1	0	0	0	**1**	2	1	2	1	**6**	0	0	0	0	**0**	**446**
6:00 PM - 7:00 PM	7	0	2	0	**9**	0	0	0	0	**0**	2	2	0	0	**4**	0	0	0	0	**0**	**320**
7:00 PM - 8:00 PM	5	2	0	1	**8**	0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**	**196**
8:00 PM - 9:00 PM	2	1	1	2	**6**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**174**
9:00 PM - 10:00 PM	1	1	2	0	**4**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**164**
10:00 PM - 11:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**135**
11:00 PM - 12:00 AM	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**67**
Total	**147**					**4**					**36**					**0**					**4754**
Percentage	**3.1%**					**0.1%**					**0.8%**					**0.0%**					**100.0%**

11:45am-12:45am AM PK 274 AM PHF 0.79 5:15pm-6:15pm PM PK 465 PM PHF 0.91 HV Percent 9.3%

Westbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	**0**	7	5	4	3	**19**	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**
1:00 AM - 2:00 AM	0	0	0	0	**0**	5	3	0	1	**9**	2	2	0	0	**4**	0	0	0	0	**0**	0	0	1	0	**1**
2:00 AM-3:00 AM	0	0	0	0	**0**	6	2	4	2	**14**	0	1	1	3	**5**	0	0	0	0	**0**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	0	0	**0**	4	16	16	23	**59**	0	1	6	4	**11**	0	0	0	0	**0**	0	0	0	0	**0**
4:00 AM - 5:00 AM	0	0	0	0	**0**	12	27	58	53	**150**	6	4	14	16	**40**	0	0	0	0	**0**	0	0	0	0	**0**
5:00 AM - 6:00 AM	0	0	0	0	**0**	34	39	43	69	**185**	17	13	28	25	**83**	0	0	0	0	**0**	0	1	1	0	**2**
6:00 AM - 7:00 AM	0	0	1	0	**1**	34	61	64	68	**227**	12	21	17	15	**65**	0	0	0	0	**0**	1	1	2	2	**6**
7:00 AM - 8:00 AM	1	3	0	0	**4**	83	66	67	68	**284**	21	23	18	20	**82**	0	0	0	0	**0**	1	1	2	1	**5**
8:00 AM - 9:00 AM	0	0	0	0	**0**	63	76	52	42	**233**	17	16	19	20	**72**	0	0	0	0	**0**	1	0	1	1	**3**
9:00 AM - 10:00 AM	1	1	1	1	**4**	34	46	40	40	**160**	12	17	15	11	**55**	0	0	0	0	**0**	2	0	2	1	**5**
10:00 AM - 11:00 AM	0	1	0	2	**3**	39	43	41	57	**180**	12	17	17	11	**57**	0	0	0	0	**0**	2	2	1	0	**5**
11:00 AM - 12:00 PM	0	0	0	0	**0**	39	29	36	37	**141**	18	13	10	8	**49**	0	0	0	0	**0**	2	1	2	0	**5**
12:00 PM - 1:00 PM	0	0	0	1	**1**	24	37	47	65	**173**	18	16	9	19	**62**	0	0	0	0	**0**	2	2	2	5	**11**
1:00 PM - 2:00 PM	0	0	1	0	**1**	44	43	38	54	**179**	13	11	14	20	**58**	0	0	0	0	**0**	3	0	1	0	**4**
2:00 PM - 3:00 PM	0	0	0	0	**0**	42	54	36	44	**176**	14	12	16	9	**51**	0	0	0	0	**0**	3	3	1	2	**9**
3:00 PM - 4:00 PM	1	0	1	1	**3**	38	56	40	50	**184**	24	11	18	16	**69**	0	0	0	0	**0**	3	0	5	3	**11**
4:00 PM - 5:00 PM	0	0	0	0	**0**	38	41	52	47	**178**	11	14	15	16	**56**	0	0	0	0	**0**	1	3	0	2	**6**
5:00 PM - 6:00 PM	0	0	0	0	**0**	49	47	51	55	**202**	11	15	18	8	**52**	0	0	0	0	**0**	0	2	1	0	**3**
6:00 PM - 7:00 PM	0	1	1	1	**3**	49	41	29	36	**155**	6	8	10	14	**38**	0	0	0	0	**0**	1	0	1	1	**3**
7:00 PM - 8:00 PM	0	0	0	0	**0**	24	19	31	24	**98**	7	2	5	6	**20**	0	0	0	0	**0**	1	0	1	1	**3**
8:00 PM - 9:00 PM	0	0	1	0	**1**	29	22	23	43	**117**	8	9	6	8	**31**	0	0	0	0	**0**	1	2	1	0	**4**
9:00 PM - 10:00 PM	0	0	0	0	**0**	20	19	28	28	**95**	2	7	13	9	**31**	0	0	0	0	**0**	1	1	1	0	**3**
10:00 PM - 11:00 PM	0	0	0	0	**0**	21	17	19	13	**70**	4	2	2	2	**10**	0	0	0	0	**0**	0	0	0	0	**0**
11:00 PM - 12:00 AM	0	0	0	0	**0**	8	11	10	8	**37**	1	1	2	1	**5**	0	0	0	0	**0**	0	0	0	0	**0**
Total	**21**					**3325**					**1007**					**0**					**89**				
Percentage	**0.4%**					**69.9%**					**21.2%**					**0.0%**					**1.9%**				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
1:00 AM - 2:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	1	2	1	1	**5**	0	0	0	0	**0**
2:00 AM-3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**
3:00 AM - 4:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**
4:00 AM - 5:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	1	1	0	1	**3**	0	1	0	0	**1**	0	0	0	0	**0**
5:00 AM - 6:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	1	1	0	2	**4**	0	2	2	0	**4**	0	0	0	0	**0**
6:00 AM - 7:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	1	1	0	**2**	0	0	1	1	**2**	0	1	1	0	**2**
7:00 AM - 8:00 AM	0	2	1	0	**3**	0	0	0	0	**0**	2	1	1	0	**4**	2	1	2	2	**7**	0	0	0	0	**0**
8:00 AM - 9:00 AM	1	0	0	0	**1**	0	0	0	0	**0**	1	2	0	1	**4**	1	2	1	1	**5**	1	0	0	0	**1**
9:00 AM - 10:00 AM	0	0	1	0	**1**	1	0	0	0	**1**	0	0	0	0	**0**	2	2	0	0	**4**	0	0	0	0	**0**
10:00 AM - 11:00 AM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	3	0	0	2	**5**	0	0	0	0	**0**
11:00 AM - 12:00 PM	0	1	0	2	**3**	0	0	0	0	**0**	1	1	0	0	**2**	0	2	1	0	**3**	0	0	0	0	**0**
12:00 PM - 1:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	1	1	**2**	3	0	2	2	**7**	0	0	0	0	**0**
1:00 PM - 2:00 PM	3	1	0	0	**4**	0	0	0	0	**0**	1	0	0	0	**1**	4	1	1	0	**6**	0	0	0	0	**0**
2:00 PM - 3:00 PM	0	0	1	0	**1**	0	1	0	0	**1**	1	3	1	0	**5**	0	1	1	2	**4**	0	0	0	0	**0**
3:00 PM - 4:00 PM	0	1	0	0	**1**	2	0	0	1	**3**	2	1	0	1	**4**	2	2	1	1	**6**	0	0	0	0	**0**
4:00 PM - 5:00 PM	0	0	0	1	**1**	0	0	0	0	**0**	1	3	1	0	**5**	1	1	0	0	**2**	0	0	0	1	**1**
5:00 PM - 6:00 PM	0	0	0	0	**0**	0	1	0	0	**1**	0	2	0	1	**3**	0	1	1	0	**2**	0	0	1	0	**1**
6:00 PM - 7:00 PM	3	0	1	0	**4**	0	1	0	0	**1**	1	3	0	1	**5**	0	2	0	1	**3**	0	0	0	0	**0**
7:00 PM - 8:00 PM	0	0	0	0	**0**	0	1	1	0	**2**	0	0	0	1	**1**	0	0	0	0	**0**	0	0	0	0	**0**
8:00 PM - 9:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	1	1	0	1	**3**	0	0	0	0	**0**
9:00 PM - 10:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	1	**2**	1	1	0	1	**3**	0	0	0	0	**0**
10:00 PM - 11:00 PM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	2	**2**	0	0	0	0	**0**
11:00 PM - 12:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	1	0	0	0	**1**	0	0	0	0	**0**
Total	**22**					**9**					**47**					**76**					**5**				
Percentage	**0.5%**					**0.2%**					**1.0%**					**1.6%**					**0.1%**				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**21**
1:00 AM - 2:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**19**
2:00 AM-3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**20**
3:00 AM - 4:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**70**
4:00 AM - 5:00 AM	0	0	2	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**196**
5:00 AM - 6:00 AM	0	0	0	2	**2**	0	0	0	0	**0**	0	1	0	1	**2**	0	0	0	0	**0**	**282**
6:00 AM - 7:00 AM	0	1	1	1	**3**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**308**
7:00 AM - 8:00 AM	1	3	5	3	**12**	0	0	0	0	**0**	1	0	0	0	**1**	0	0	0	0	**0**	**402**
8:00 AM - 9:00 AM	4	3	4	1	**12**	0	0	0	0	**0**	2	1	0	0	**3**	0	0	0	0	**0**	**334**
9:00 AM - 10:00 AM	1	2	0	0	**3**	0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	**234**
10:00 AM - 11:00 AM	1	0	1	0	**2**	1	0	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	**254**
11:00 AM - 12:00 PM	0	1	2	0	**3**	0	0	0	0	**0**	0	0	1	0	**1**	0	0	0	0	**0**	**207**
12:00 PM - 1:00 PM	2	1	0	1	**4**	1	0	0	0	**1**	0	0	1	0	**1**	0	0	0	0	**0**	**262**
1:00 PM - 2:00 PM	0	1	3	4	**8**	0	0	0	0	**0**	0	0	1	2	**3**	0	0	0	0	**0**	**264**
2:00 PM - 3:00 PM	1	2	2	5	**10**	0	0	0	1	**1**	1	1	1	0	**3**	0	0	0	0	**0**	**261**
3:00 PM - 4:00 PM	2	3	1	2	**8**	0	0	0	0	**0**	0	2	0	0	**2**	0	0	0	0	**0**	**291**
4:00 PM - 5:00 PM	2	7	3	6	**18**	0	1	0	0	**1**	1	0	0	0	**1**	0	0	0	0	**0**	**269**
5:00 PM - 6:00 PM	8	2	4	5	**19**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**283**
6:00 PM - 7:00 PM	5	3	0	3	**11**	0	0	0	0	**0**	1	0	0	0	**1**	0	0	0	0	**0**	**224**
7:00 PM - 8:00 PM	3	1	1	2	**7**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**131**
8:00 PM - 9:00 PM	0	0	1	2	**3**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**159**
9:00 PM - 10:00 PM	2	1	0	1	**4**	0	0	0	0	**0**	0	0	0	1	**1**	0	0	0	0	**0**	**139**
10:00 PM - 11:00 PM	0	1	0	0	**1**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**84**
11:00 PM - 12:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	**43**
Total	**132**					**4**					**20**					**0**					**4757**
Percentage	**2.8%**					**0.1%**					**0.4%**					**0.0%**					**100.0%**

7:00am-8:00am AM PK 402 AM PHF 0.90 3:00pm-4:00pm PM PK 291 PM PHF 0.96 HV Percent 8.5%

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

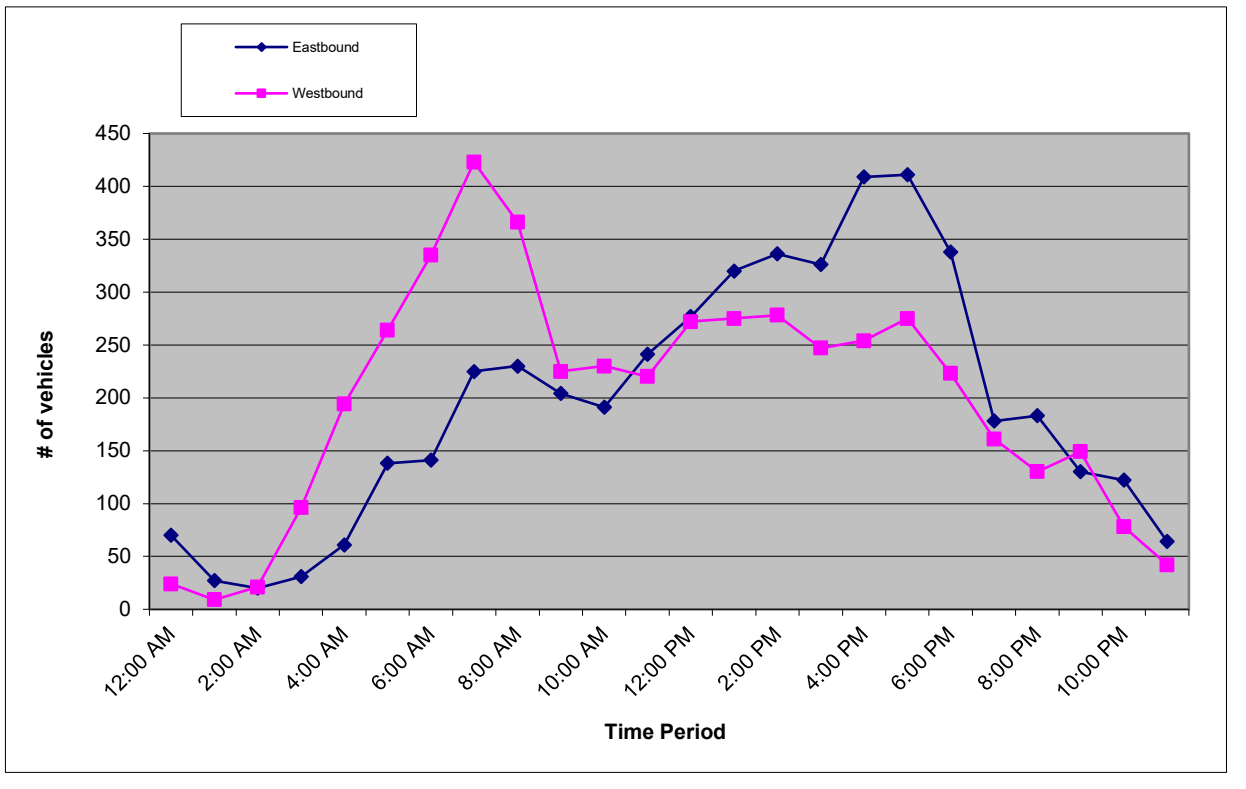
24 Hour Count Report

Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

LOCATION Riggin Ave, btwn Kelsey/Shirk
LATITUDE 36.3564453
COUNTY Tulare
LONGITUDE -119.3773376
COLLECTION DATE Wednesday, June 1, 2022
WEATHER Clear
NUMBER OF LANES 2

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	**Total**	1st	2nd	3rd	4th	**Total**	**Totals**
12:00 AM	36	8	17	9	**70**	9	9	5	1	**24**	**94**
1:00 AM	4	7	9	7	**27**	4	2	1	2	**9**	**36**
2:00 AM	10	5	4	1	**20**	2	4	5	10	**21**	**41**
3:00 AM	3	8	12	8	**31**	8	10	27	51	**96**	**127**
4:00 AM	12	11	23	15	**61**	36	25	49	84	**194**	**255**
5:00 AM	53	28	32	25	**138**	46	62	67	89	**264**	**402**
6:00 AM	32	35	30	44	**141**	53	82	98	102	**335**	**476**
7:00 AM	49	47	59	70	**225**	86	113	103	121	**423**	**648**
8:00 AM	75	65	39	51	**230**	103	114	67	82	**366**	**596**
9:00 AM	48	44	57	55	**204**	54	67	59	45	**225**	**429**
10:00 AM	50	45	46	50	**191**	57	69	51	53	**230**	**421**
11:00 AM	68	48	57	68	**241**	47	57	61	55	**220**	**461**
12:00 PM	68	67	69	73	**277**	55	58	76	83	**272**	**549**
1:00 PM	66	63	109	82	**320**	71	57	71	76	**275**	**595**
2:00 PM	79	71	97	89	**336**	74	63	67	74	**278**	**614**
3:00 PM	96	67	90	73	**326**	58	54	67	68	**247**	**573**
4:00 PM	108	104	130	67	**409**	68	53	72	61	**254**	**663**
5:00 PM	132	86	109	84	**411**	51	78	78	68	**275**	**686**
6:00 PM	128	92	58	60	**338**	73	54	45	51	**223**	**561**
7:00 PM	51	53	45	29	**178**	34	46	38	43	**161**	**339**
8:00 PM	42	37	55	49	**183**	34	27	35	34	**130**	**313**
9:00 PM	30	33	33	34	**130**	32	43	42	32	**149**	**279**
10:00 PM	33	35	31	23	**122**	26	20	13	19	**78**	**200**
11:00 PM	24	16	10	14	**64**	13	12	6	11	**42**	**106**
Total	**49.4%**				**4673**	**50.6%**				**4791**	
	9464										

AM%	**42.1%**	**AM Peak 710**	**7:30 am to 8:30 am**	**AM P.H.F.**	**0.93**
PM%	**57.9%**	**PM Peak 704**	**5:15 pm to 6:15 pm**	**PM P.H.F.**	**0.88**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
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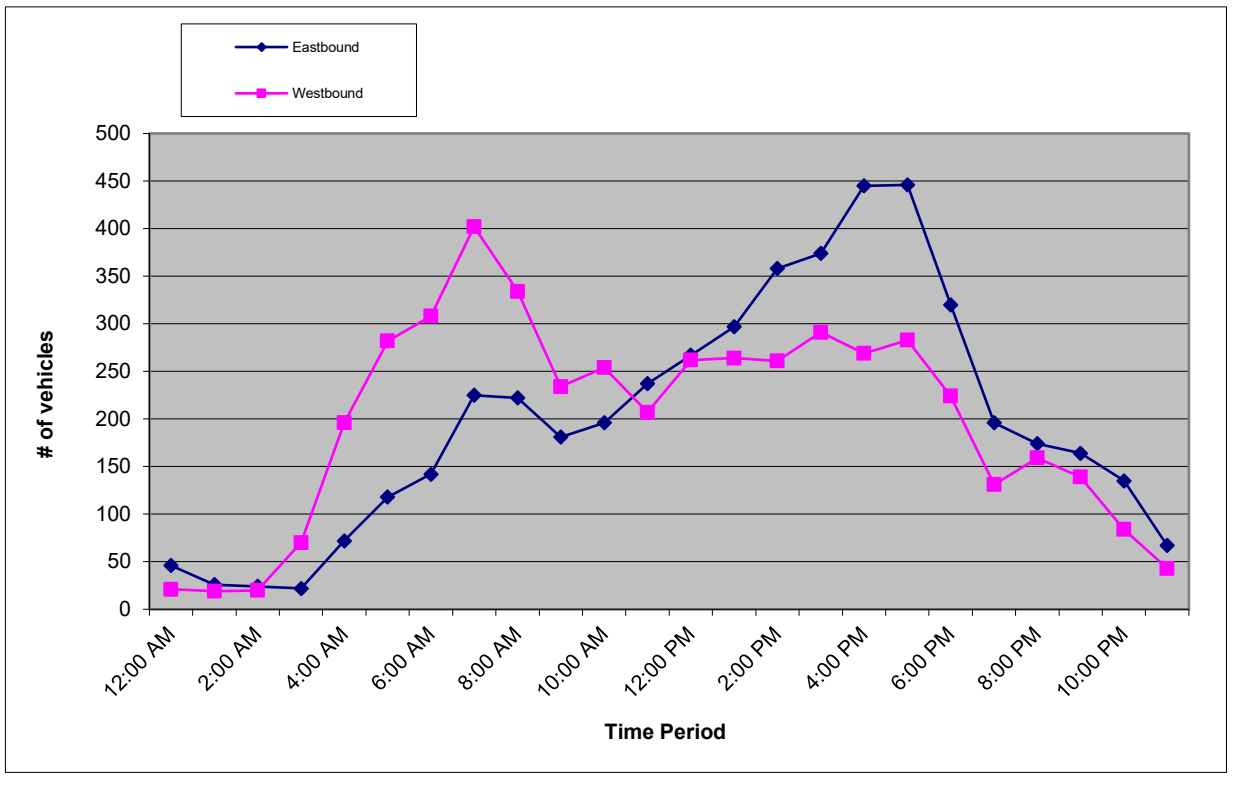
24 Hour Count Report

Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

LOCATION Riggin Ave, btwn Kelsey/Shirk
LATITUDE 36.3564453
COUNTY Tulare
LONGITUDE -119.3773376
COLLECTION DATE Thursday, June 2, 2022
WEATHER Clear
NUMBER OF LANES 2

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	**Total**	1st	2nd	3rd	4th	**Total**	**Totals**
12:00 AM	14	12	12	8	**46**	8	6	4	3	**21**	**67**
1:00 AM	7	9	4	6	**26**	8	7	2	2	**19**	**45**
2:00 AM	7	8	7	2	**24**	6	3	6	5	**20**	**44**
3:00 AM	4	10	5	3	**22**	4	17	22	27	**70**	**92**
4:00 AM	13	13	32	14	**72**	19	33	74	70	**196**	**268**
5:00 AM	45	25	26	22	**118**	52	57	74	99	**282**	**400**
6:00 AM	27	32	38	45	**142**	47	86	88	87	**308**	**450**
7:00 AM	58	41	57	69	**225**	112	100	96	94	**402**	**627**
8:00 AM	84	57	32	49	**222**	91	100	77	66	**334**	**556**
9:00 AM	41	41	45	54	**181**	53	69	59	53	**234**	**415**
10:00 AM	48	37	49	62	**196**	58	64	60	72	**254**	**450**
11:00 AM	43	61	60	73	**237**	60	48	52	47	**207**	**444**
12:00 PM	52	87	62	66	**267**	50	56	62	94	**262**	**529**
1:00 PM	67	63	92	75	**297**	68	57	59	80	**264**	**561**
2:00 PM	81	71	98	108	**358**	62	77	59	63	**261**	**619**
3:00 PM	81	96	110	87	**374**	74	76	66	75	**291**	**665**
4:00 PM	94	127	111	113	**445**	55	70	71	73	**269**	**714**
5:00 PM	109	109	110	118	**446**	68	70	76	69	**283**	**729**
6:00 PM	128	77	62	53	**320**	66	59	42	57	**224**	**544**
7:00 PM	52	58	36	50	**196**	35	23	39	34	**131**	**327**
8:00 PM	38	47	47	42	**174**	39	34	32	54	**159**	**333**
9:00 PM	53	41	35	35	**164**	27	29	42	41	**139**	**303**
10:00 PM	29	31	41	34	**135**	25	21	21	17	**84**	**219**
11:00 PM	19	18	5	25	**67**	10	12	12	9	**43**	**110**
Total	**50.0%**				**4754**	**50.0%**				**4757**	
	9511										

AM% 40.6% **AM Peak** 648 **7:30 am to 8:30 am** **AM P.H.F.** 0.93
PM% 59.4% **PM Peak** 746 **5:15 pm to 6:15 pm** **PM P.H.F.** 0.96



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

2-Day Average Count Report

Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

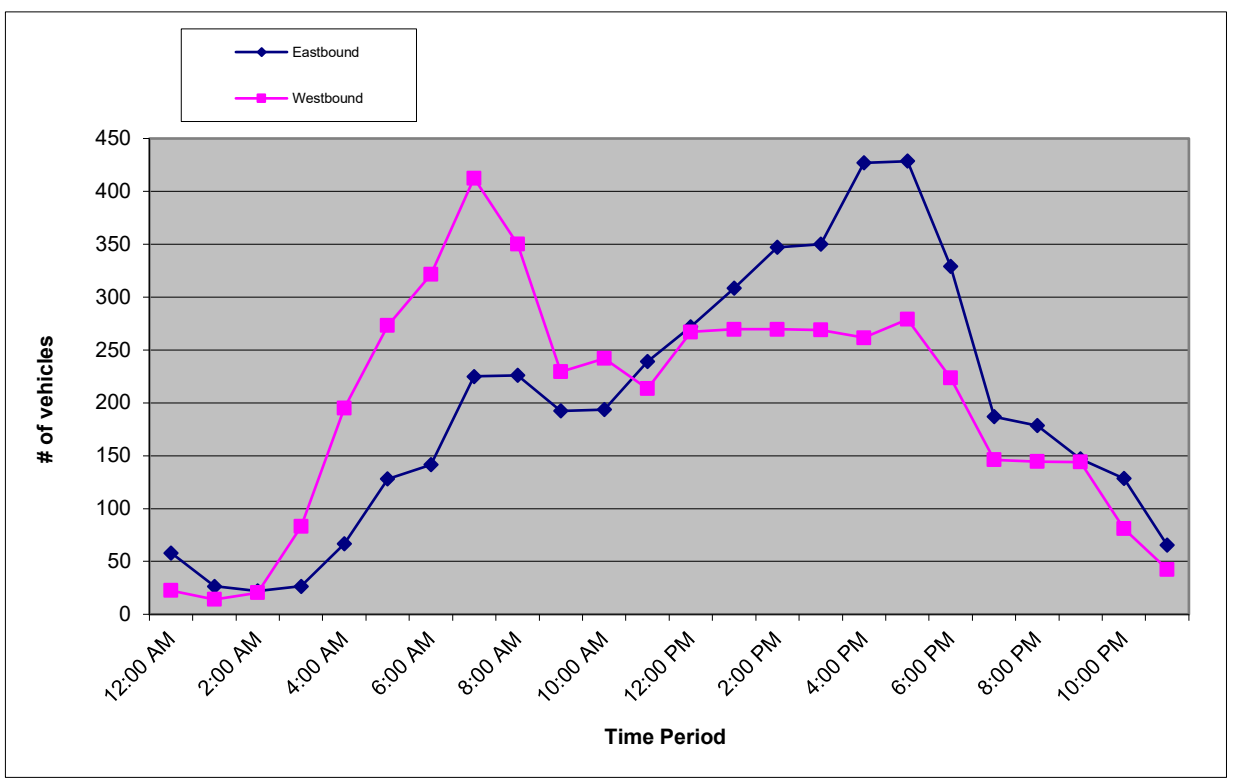
LOCATION Riggin Ave, btwn Kelsey/Shirk
COUNTY Tulare
COLLECTION DATE
NUMBER OF LANES 2

LATITUDE 36.3564453
LONGITUDE -119.3773376
WEATHER Clear

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	**Total**	1st	2nd	3rd	4th	**Total**	**Totals**
12:00 AM	25	10	15	9	**58**	9	8	5	2	**22.5**	**80.5**
1:00 AM	6	8	7	7	**27**	6	5	2	2	**14**	**40.5**
2:00 AM	9	7	6	2	**22**	4	4	6	8	**20.5**	**42.5**
3:00 AM	4	9	9	6	**26.5**	6	14	25	39	**83**	**109.5**
4:00 AM	13	12	28	15	**66.5**	28	29	62	77	**195**	**261.5**
5:00 AM	49	27	29	24	**128**	49	60	71	94	**273**	**401**
6:00 AM	30	34	34	45	**141.5**	50	84	93	95	**321.5**	**463**
7:00 AM	54	44	58	70	**225**	99	107	100	108	**412.5**	**637.5**
8:00 AM	80	61	36	50	**226**	97	107	72	74	**350**	**576**
9:00 AM	45	43	51	55	**192.5**	54	68	59	49	**229.5**	**422**
10:00 AM	49	41	48	56	**193.5**	58	67	56	63	**242**	**435.5**
11:00 AM	56	55	59	71	**239**	54	53	57	51	**213.5**	**452.5**
12:00 PM	60	77	66	70	**272**	53	57	69	89	**267**	**539**
1:00 PM	67	63	101	79	**308.5**	70	57	65	78	**269.5**	**578**
2:00 PM	80	71	98	99	**347**	68	70	63	69	**269.5**	**616.5**
3:00 PM	89	82	100	80	**350**	66	65	67	72	**269**	**619**
4:00 PM	101	116	121	90	**427**	62	62	72	67	**261.5**	**688.5**
5:00 PM	121	98	110	101	**428.5**	60	74	77	69	**279**	**707.5**
6:00 PM	128	85	60	57	**329**	70	57	44	54	**223.5**	**552.5**
7:00 PM	52	56	41	40	**187**	35	35	39	39	**146**	**333**
8:00 PM	40	42	51	46	**178.5**	37	31	34	44	**144.5**	**323**
9:00 PM	42	37	34	35	**147**	30	36	42	37	**144**	**291**
10:00 PM	31	33	36	29	**128.5**	26	21	17	18	**81**	**209.5**
11:00 PM	22	17	8	20	**65.5**	12	12	9	10	**42.5**	**108**
Total	**49.7%**				**4714**	**50.3%**				**4774**	
	9487.5										

PHF 0.90042 (7:00 AM)
PHF 0.94839 (5:00 PM)

AM%	41.3%	**AM Peak** 648	7:30 am to 8:30 am	**AM P.H.F.**	0.93
PM%	58.7%	**PM Peak** 746	5:15 pm to 6:15 pm	**PM P.H.F.**	0.96



Metro Traffic Data Inc.

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

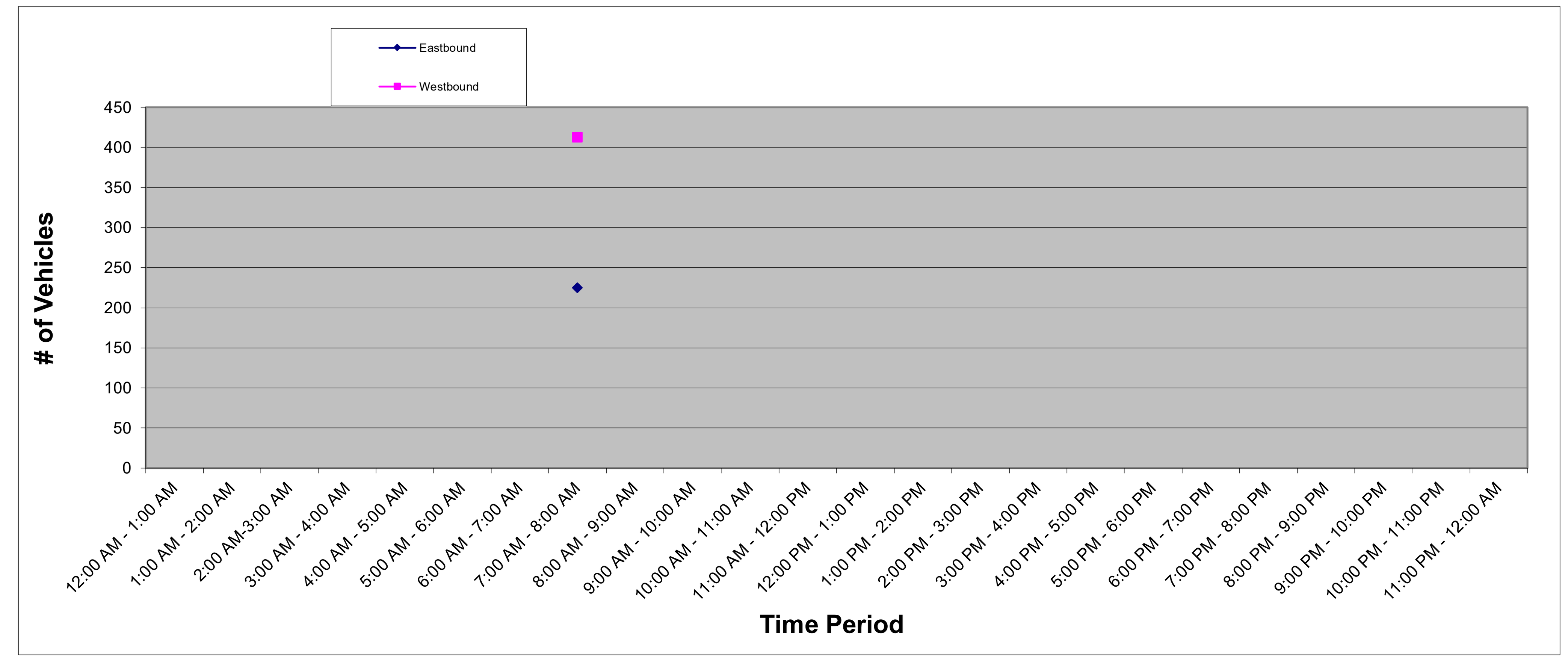
800-975-6938 Phone/Fax
www.metrotraffic data.com

Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

Description Riggin Ave, btwn Kelsey/Shirk
Survey Date Thursday, June 2, 2022
Latitude 36.356445
Longitude -119.3773376
Number of Lanes 2
Total Volume 638
HV Percentage 10.0%
AM Peak Period 7:30am-8:30am
AM Peak Volume 648
AM PHF 0.93
PM Peak Period 5:15pm-6:15pm
PM Peak Volume 746
PM PHF 0.96

Class 1 - Motorcycles, 2 axles
Class 2 - Passenger cars, 2 axles
Class 3 - Pickup trucks, vans, 2 axles
Class 4 - Busses
Class 5 - Single unit, 2 axle, 6 tires
Class 6 - Single unit truck, 3 axles
Class 7 - Single unit, 4 axles
Class 8 - Double unit, < 5 axles
Class 9 - Double unit, 5 axles
Class 10 - Double unit, > 5 axles
Class 11 - Multi unit, 5 axles
Class 12 - Multi unit, 6 axles
Class 13 - Multi unit, > 6 axles
Class 14 - Unclassifiable

1st First 15 minute interval
2nd Second 15 minute interval
3rd Third 15 minute interval
4th Fourth 15 minute interval
T Hourly Total



Eastbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5					Class 6					Class 7					Class 8					Class 9					Class 10					Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
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6:00 AM - 7:00 AM																																																																							
7:00 AM - 8:00 AM	0	0	0	0	0	30	23	39	43	135	14	13	13	16	55	0	0	0	0	0	3	1	2	3	8	2	1	0	1	3	0	0	0	1	1	1	2	1	2	6	1	2	2	1	5	1	0	0	1	1	1	3	3	3	9	1	1	0	0	2	1	0	1	2	4	0	0	0	0	0	225
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11:00 PM - 12:00 AM																																																																							
Total	0					135					55					0					8					3					1					6					5					1					9					2					4					0					225
Percentage	0.0%					59.8%					24.2%					0.0%					3.6%					1.3%					0.2%					2.4%					2.0%					0.4%					3.8%					0.7%					1.6%					0.0%					100.0%

11:45am-12:45am AM PK 274 AM PHF 0.79 5:15pm-6:15pm PM PK 465 PM PHF 0.91 HV Percent 16.0%

Westbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5					Class 6					Class 7					Class 8					Class 9					Class 10					Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM																																																																							
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5:00 AM - 6:00 AM																																																																							
6:00 AM - 7:00 AM																																																																							
7:00 AM - 8:00 AM	1	2	1	0	4	74	73	71	79	296	19	25	19	23	86	0	0	0	0	0	2	1	2	1	5	0	1	1	1	3	0	0	0	0	0	1	1	1	1	3	2	1	1	2	6	0	0	1	0	1	1	3	4	2	10	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	413
8:00 AM - 9:00 AM																																																																							
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10:00 PM - 11:00 PM																																																																							
11:00 PM - 12:00 AM																																																																							
Total	4					296					86					0					5					3					0					3					6					1					10					0					1					0					413
Percentage	0.8%					71.8%					20.7%					0.0%					1.2%					0.6%					0.0%					0.7%					1.3%					0.1%					2.4%					0.0%					0.2%					0.0%					100.0%

7:00am-8:00am AM PK 402 AM PHF 0.90 3:00pm-4:00pm PM PK 291 PM PHF 0.96 HV Percent 6.7%

10.0%

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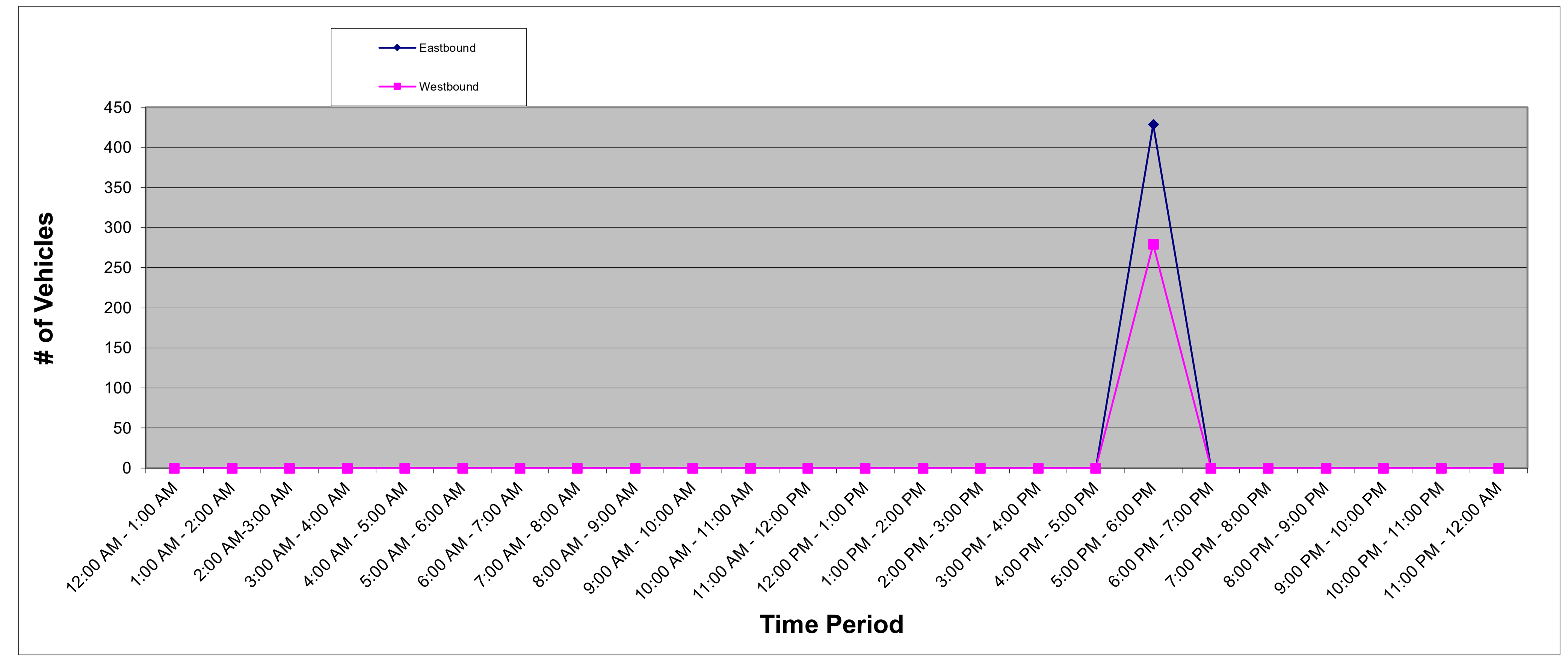
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

Description	Riggin Ave, btwn Kelsey/Shirk
Survey Date	Thursday, June 2, 2022
Latitude	36.356445
Longitude	-119.3773376
Number of Lanes	2
Total Volume	708
HV Percentage	9.2%
AM Peak Period	7:30am-8:30am
AM Peak Volume	648
AM PHF	0.93
PM Peak Period	5:15pm-6:15pm
PM Peak Volume	746
PM PHF	0.96

Class 1 - Motorcycles, 2 axles
Class 2 - Passenger cars, 2 axles
Class 3 - Pickup trucks, vans, 2 axles
Class 4 - Busses
Class 5 - Single unit, 2 axle, 6 tires
Class 6 - Single unit truck, 3 axles
Class 7 - Single unit, 4 axles
Class 8 - Double unit, < 5 axles
Class 9 - Double unit, 5 axles
Class 10 - Double unit, > 5 axles
Class 11 - Multi unit, 5 axles
Class 12 - Multi unit, 6 axles
Class 13 - Multi unit, > 6 axles
Class 14 - Unclassifiable

1st First 15 minute interval
2nd Second 15 minute interval
3rd Third 15 minute interval
4th Fourth 15 minute interval
T Hourly Total



Eastbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM																									
1:00 AM - 2:00 AM																									
2:00 AM-3:00 AM																									
3:00 AM - 4:00 AM																									
4:00 AM - 5:00 AM																									
5:00 AM - 6:00 AM																									
6:00 AM - 7:00 AM																									
7:00 AM - 8:00 AM																									
8:00 AM - 9:00 AM																									
9:00 AM - 10:00 AM																									
10:00 AM - 11:00 AM																									
11:00 AM - 12:00 PM																									
12:00 PM - 1:00 PM																									
1:00 PM - 2:00 PM																									
2:00 PM - 3:00 PM																									
3:00 PM - 4:00 PM																									
4:00 PM - 5:00 PM																									
5:00 PM - 6:00 PM	0	1	0	0	**1**	79	68	82	64	**291**	31	23	21	27	**101**	0	0	0	0	**0**	0	1	1	3	**5**
6:00 PM - 7:00 PM																									
7:00 PM - 8:00 PM																									
8:00 PM - 9:00 PM																									
9:00 PM - 10:00 PM																									
10:00 PM - 11:00 PM																									
11:00 PM - 12:00 AM																									
Total	1					291					101					0					5				
Percentage	0.2%					67.9%					23.5%					0.0%					1.1%				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM																									
1:00 AM - 2:00 AM																									
2:00 AM-3:00 AM																									
3:00 AM - 4:00 AM																									
4:00 AM - 5:00 AM																									
5:00 AM - 6:00 AM																									
6:00 AM - 7:00 AM																									
7:00 AM - 8:00 AM																									
8:00 AM - 9:00 AM																									
9:00 AM - 10:00 AM																									
10:00 AM - 11:00 AM																									
11:00 AM - 12:00 PM																									
12:00 PM - 1:00 PM																									
1:00 PM - 2:00 PM																									
2:00 PM - 3:00 PM																									
3:00 PM - 4:00 PM																									
4:00 PM - 5:00 PM																									
5:00 PM - 6:00 PM	0	0	0	0	**0**	0	0	0	0	**0**	2	1	1	1	**4**	1	0	1	1	**3**	0	0	0	1	**1**
6:00 PM - 7:00 PM																									
7:00 PM - 8:00 PM																									
8:00 PM - 9:00 PM																									
9:00 PM - 10:00 PM																									
10:00 PM - 11:00 PM																									
11:00 PM - 12:00 AM																									
Total	0					0					4					3					1				
Percentage	0.0%					0.0%					0.9%					0.6%					0.1%				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM																					0
1:00 AM - 2:00 AM																					0
2:00 AM-3:00 AM																					0
3:00 AM - 4:00 AM																					0
4:00 AM - 5:00 AM																					0
5:00 AM - 6:00 AM																					0
6:00 AM - 7:00 AM																					0
7:00 AM - 8:00 AM																					0
8:00 AM - 9:00 AM																					0
9:00 AM - 10:00 AM																					0
10:00 AM - 11:00 AM																					0
11:00 AM - 12:00 PM																					0
12:00 PM - 1:00 PM																					0
1:00 PM - 2:00 PM																					0
2:00 PM - 3:00 PM																					0
3:00 PM - 4:00 PM																					0
4:00 PM - 5:00 PM																					0
5:00 PM - 6:00 PM	7	5	4	5	**20**	1	0	0	0	**1**	2	1	1	2	**5**	0	0	0	0	**0**	**429**
6:00 PM - 7:00 PM																					0
7:00 PM - 8:00 PM																					0
8:00 PM - 9:00 PM																					0
9:00 PM - 10:00 PM																					0
10:00 PM - 11:00 PM																					0
11:00 PM - 12:00 AM																					0
Total	20					1					5					0					429
Percentage	4.6%					0.1%					1.1%					0.0%					100.0%

11:45am-12:45am AM PK 274 AM PHF 0.79 5:15pm-6:15pm PM PK 465 PM PHF 0.91 HV Percent 8.4%

Westbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM																									
1:00 AM - 2:00 AM																									
2:00 AM-3:00 AM																									
3:00 AM - 4:00 AM																									
4:00 AM - 5:00 AM																									
5:00 AM - 6:00 AM																									
6:00 AM - 7:00 AM																									
7:00 AM - 8:00 AM																									
8:00 AM - 9:00 AM																									
9:00 AM - 10:00 AM																									
10:00 AM - 11:00 AM																									
11:00 AM - 12:00 PM																									
12:00 PM - 1:00 PM																									
1:00 PM - 2:00 PM																									
2:00 PM - 3:00 PM																									
3:00 PM - 4:00 PM																									
4:00 PM - 5:00 PM																									
5:00 PM - 6:00 PM	1	1	0	1	**2**	43	52	54	54	**203**	10	15	14	8	**46**	0	0	0	0	**0**	1	1	1	1	**3**
6:00 PM - 7:00 PM																									
7:00 PM - 8:00 PM																									
8:00 PM - 9:00 PM																									
9:00 PM - 10:00 PM																									
10:00 PM - 11:00 PM																									
11:00 PM - 12:00 AM																									
Total	2					203					46					0					3				
Percentage	0.5%					72.6%					16.5%					0.0%					1.1%				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM																									
1:00 AM - 2:00 AM																									
2:00 AM-3:00 AM																									
3:00 AM - 4:00 AM																									
4:00 AM - 5:00 AM																									
5:00 AM - 6:00 AM																									
6:00 AM - 7:00 AM																									
7:00 AM - 8:00 AM																									
8:00 AM - 9:00 AM																									
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10:00 AM - 11:00 AM																									
11:00 AM - 12:00 PM																									
12:00 PM - 1:00 PM																									
1:00 PM - 2:00 PM																									
2:00 PM - 3:00 PM																									
3:00 PM - 4:00 PM																									
4:00 PM - 5:00 PM																									
5:00 PM - 6:00 PM	0	0	0	1	**1**	1	1	0	0	**2**	0	1	1	1	**3**	1	2	3	1	**5**	0	0	1	0	**1**
6:00 PM - 7:00 PM																									
7:00 PM - 8:00 PM																									
8:00 PM - 9:00 PM																									
9:00 PM - 10:00 PM																									
10:00 PM - 11:00 PM																									
11:00 PM - 12:00 AM																									
Total	1					2					3					5					1				
Percentage	0.2%					0.5%					0.9%					1.8%					0.2%				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM																					0
1:00 AM - 2:00 AM																					0
2:00 AM-3:00 AM																					0
3:00 AM - 4:00 AM																					0
4:00 AM - 5:00 AM																					0
5:00 AM - 6:00 AM																					0
6:00 AM - 7:00 AM																					0
7:00 AM - 8:00 AM																					0
8:00 AM - 9:00 AM																					0
9:00 AM - 10:00 AM																					0
10:00 AM - 11:00 AM																					0
11:00 AM - 12:00 PM																					0
12:00 PM - 1:00 PM																					0
1:00 PM - 2:00 PM																					0
2:00 PM - 3:00 PM																					0
3:00 PM - 4:00 PM																					0
4:00 PM - 5:00 PM																					0
5:00 PM - 6:00 PM	5	3	4	4	**15**	0	0	0	0	**0**	0	0	1	1	**2**	0	0	0	0	**0**	**279**
6:00 PM - 7:00 PM																					0
7:00 PM - 8:00 PM																					0
8:00 PM - 9:00 PM																					0
9:00 PM - 10:00 PM																					0
10:00 PM - 11:00 PM																					0
11:00 PM - 12:00 AM																					0
Total	15					0					2					0					279
Percentage	5.2%					0.0%					0.5%					0.0%					100.0%

7:00am-8:00am AM PK 402 AM PHF 0.90 3:00pm-4:00pm PM PK 291 PM PHF 0.96 HV Percent 10.4%

9.2%

Metro Traffic Data Inc.

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

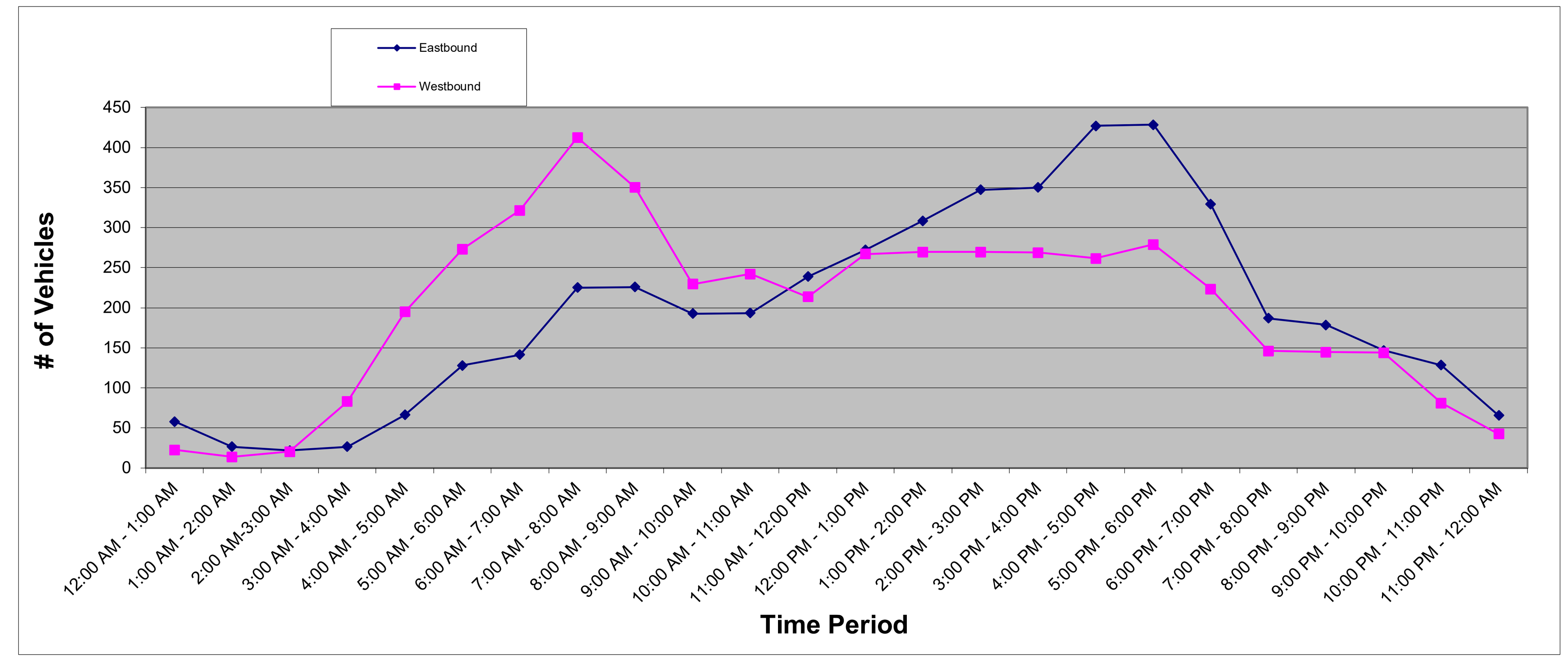
800-975-6938 Phone/Fax
www.metrotraffic data.com

Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

Description	Riggin Ave, btwn Kelsey/Shirk
Survey Date	Thursday, June 2, 2022
Latitude	36.356445
Longitude	-119.3773376
Number of Lanes	2
Total Volume	9488
HV Percentage	8.6%
AM Peak Period	7:30am-8:30am
AM Peak Volume	648
AM PHF	0.93
PM Peak Period	5:15pm-6:15pm
PM Peak Volume	746
PM PHF	0.96

Class 1 - Motorcycles, 2 axles
Class 2 - Passenger cars, 2 axles
Class 3 - Pickup trucks, vans, 2 axles
Class 4 - Busses
Class 5 - Single unit, 2 axle, 6 tires
Class 6 - Single unit truck, 3 axles
Class 7 - Single unit, 4 axles
Class 8 - Double unit, < 5 axles
Class 9 - Double unit, 5 axles
Class 10 - Double unit, > 5 axles
Class 11 - Multi unit, 5 axles
Class 12 - Multi unit, 6 axles
Class 13 - Multi unit, > 6 axles
Class 14 - Unclassifiable

1st First 15 minute interval
2nd Second 15 minute interval
3rd Third 15 minute interval
4th Fourth 15 minute interval
T Hourly Total



Eastbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	0	21	7	12	6	45	4	3	3	3	11	0	0	0	0	0	0	1	0	1	1
1:00 AM - 2:00 AM	0	0	0	1	1	2	6	5	5	17	3	2	1	1	6	0	0	0	0	0	0	0	0	1	1
2:00 AM-3:00 AM	0	0	0	0	0	7	6	4	1	18	2	1	1	1	4	0	0	0	0	0	0	0	0	0	0
3:00 AM - 4:00 AM	0	0	0	0	0	4	8	5	4	20	0	1	3	2	5	0	0	0	0	0	0	0	0	0	0
4:00 AM - 5:00 AM	0	1	0	1	1	10	6	20	10	45	2	5	5	4	15	0	0	0	0	0	0	0	0	1	1
5:00 AM - 6:00 AM	0	1	0	0	1	43	18	20	12	93	5	7	6	8	25	0	0	0	0	0	0	1	2	0	2
6:00 AM - 7:00 AM	0	0	0	1	1	13	14	20	21	67	10	11	9	17	45	0	0	0	0	0	3	2	2	1	7
7:00 AM - 8:00 AM	0	0	0	0	0	30	23	39	43	135	14	13	13	16	55	0	0	0	0	0	3	1	2	3	8
8:00 AM - 9:00 AM	0	1	0	0	1	46	32	18	28	124	21	17	14	16	67	0	0	0	0	0	2	3	1	2	8
9:00 AM - 10:00 AM	1	0	0	0	1	24	19	26	33	102	17	18	15	17	66	0	0	0	0	0	1	3	4	1	9
10:00 AM - 11:00 AM	0	0	1	0	1	29	26	25	29	108	16	11	19	20	65	0	0	0	0	0	2	2	0	3	7
11:00 AM - 12:00 PM	2	0	0	0	2	31	33	30	41	134	18	19	24	22	82	0	0	0	0	0	1	2	1	4	7
12:00 PM - 1:00 PM	0	0	0	1	1	37	41	40	41	158	14	29	20	22	85	0	0	0	0	0	2	2	1	1	6
1:00 PM - 2:00 PM	0	0	0	0	0	42	40	59	53	193	18	19	28	19	83	0	0	0	0	0	1	3	1	1	5
2:00 PM - 3:00 PM	0	0	1	1	2	53	46	59	64	221	20	20	29	24	92	0	0	0	0	0	2	3	2	2	8
3:00 PM - 4:00 PM	0	0	1	1	2	50	49	63	54	215	30	27	32	20	109	0	1	0	0	1	4	2	1	2	8
4:00 PM - 5:00 PM	2	2	1	1	4	64	75	81	57	275	27	37	30	25	118	1	0	0	0	1	1	1	2	2	6
5:00 PM - 6:00 PM	0	1	0	0	1	79	68	82	64	291	31	23	21	27	101	0	0	0	0	0	0	1	1	3	5
6:00 PM - 7:00 PM	3	0	1	0	4	86	58	43	39	224	28	19	14	14	75	0	0	0	0	0	1	2	1	2	4
7:00 PM - 8:00 PM	0	1	1	0	2	39	40	28	31	137	9	12	12	7	38	0	0	0	0	0	1	2	0	1	4
8:00 PM - 9:00 PM	0	0	0	0	0	30	33	44	34	140	8	6	6	9	29	0	0	0	0	0	0	1	0	1	2
9:00 PM - 10:00 PM	1	0	1	2	3	27	28	25	26	106	14	7	7	6	34	0	0	0	0	0	0	1	0	1	2
10:00 PM - 11:00 PM	0	0	0	1	1	22	26	30	23	100	10	6	6	6	27	0	0	0	0	0	0	1	0	0	1
11:00 PM - 12:00 AM	0	0	0	0	0	19	14	8	15	54	3	4	0	5	11	0	0	0	0	0	0	0	0	0	0
Total	23					3016					1242					1					97				
Percentage	0.5%					64.0%					26.3%					0.0%					2.1%				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
1:00 AM - 2:00 AM	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0
2:00 AM-3:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
3:00 AM - 4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0
4:00 AM - 5:00 AM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1
5:00 AM - 6:00 AM	0	0	0	1	1	0	0	0	0	0	0	1	1	1	2	0	1	0	2	2	0	0	0	0	0
6:00 AM - 7:00 AM	1	1	0	0	2	1	1	1	0	2	1	1	1	1	3	2	3	1	1	6	1	0	0	0	1
7:00 AM - 8:00 AM	2	1	0	1	3	0	0	0	1	1	1	2	1	2	6	1	2	2	1	5	1	0	0	1	1
8:00 AM - 9:00 AM	0	0	1	2	2	0	1	0	1	1	2	2	0	1	5	1	1	1	1	3	0	0	0	0	0
9:00 AM - 10:00 AM	0	0	1	0	1	0	0	1	0	1	1	1	2	1	5	1	2	1	0	3	0	0	0	0	0
10:00 AM - 11:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	1	1	1	3	1	1	1	5	0	1	0	1	1
11:00 AM - 12:00 PM	1	1	2	1	3	0	0	0	0	0	1	1	1	1	4	1	1	1	1	3	0	0	0	0	0
12:00 PM - 1:00 PM	1	1	0	0	1	0	0	0	0	0	1	1	1	1	3	2	1	1	2	6	0	0	0	0	0
1:00 PM - 2:00 PM	0	0	0	2	2	0	0	0	0	0	2	0	1	0	3	2	1	2	3	7	0	0	1	0	1
2:00 PM - 3:00 PM	1	0	1	0	2	0	0	0	1	1	1	1	1	1	3	1	1	2	2	6	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	1	0	1	1	2	0	0	0	0	0
4:00 PM - 5:00 PM	1	0	1	1	2	0	0	1	1	1	1	1	2	1	4	1	1	0	1	3	0	0	1	0	1
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	1	1	4	1	0	1	1	3	0	0	0	1	1
6:00 PM - 7:00 PM	2	0	0	0	2	1	0	1	0	1	2	2	1	1	5	1	1	1	2	4	0	0	0	0	0
7:00 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	0	0	0	0
8:00 PM - 9:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2	0	0	0	0	0
9:00 PM - 10:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
10:00 PM - 11:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	23					7					48					63					5				
Percentage	0.5%					0.1%					1.0%					1.3%					0.1%				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
1:00 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	27
2:00 AM-3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
3:00 AM - 4:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
4:00 AM - 5:00 AM	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
5:00 AM - 6:00 AM	1	0	2	1	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	128
6:00 AM - 7:00 AM	1	1	2	3	7	0	0	0	0	0	1	2	0	1	3	0	0	0	0	0	142
7:00 AM - 8:00 AM	1	3	3	3	9	1	1	0	0	2	1	0	1	2	4	0	0	0	0	0	225
8:00 AM - 9:00 AM	6	5	2	1	14	1	0	0	0	1	2	1	0	0	3	0	0	0	0	0	226
9:00 AM - 10:00 AM	1	1	2	3	6	1	0	1	0	2	0	0	1	0	1	0	0	0	0	0	193
10:00 AM - 11:00 AM	1	3	2	2	6	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	194
11:00 AM - 12:00 PM	2	0	1	2	4	0	0	0	0	0	1	0	1	1	2	0	0	0	0	0	239
12:00 PM - 1:00 PM	4	3	2	2	11	0	0	0	1	1	1	0	1	1	3	0	0	0	0	0	272
1:00 PM - 2:00 PM	3	1	8	2	13	0	0	0	0	0	0	1	3	1	4	0	0	0	0	0	309
2:00 PM - 3:00 PM	4	1	5	5	14	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	347
3:00 PM - 4:00 PM	4	2	2	2	10	0	0	1	0	1	0	1	0	1	2	0	0	0	0	0	350
4:00 PM - 5:00 PM	5	1	6	3	14	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	427
5:00 PM - 6:00 PM	7	5	4	5	20	1	0	0	0	1	2	1	1	2	5	0	0	0	0	0	429
6:00 PM - 7:00 PM	6	1	1	1	8	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	329
7:00 PM - 8:00 PM	3	1	0	1	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	187
8:00 PM - 9:00 PM	2	1	1	2	6	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	179
9:00 PM - 10:00 PM	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147
10:00 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	129
11:00 PM - 12:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Total	151					6					34					0					4714
Percentage	3.2%					0.1%					0.7%					0.0%					100.0%

11:45am-12:45am AM PK 274 AM PHF 0.79 5:15pm-6:15pm PM PK 465 PM PHF 0.91 HV Percent 9.2%

Westbound

Hour	Class 1					Class 2					Class 3					Class 4					Class 5				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	1	0	0	0	1	8	6	4	2	19	1	1	1	0	2	0	0	0	0	0	0	0	0	0	0
1:00 AM - 2:00 AM	0	0	0	0	0	4	3	1	2	9	1	1	0	0	2	0	0	0	0	0	0	0	1	0	1
2:00 AM-3:00 AM	0	0	0	0	0	4	3	4	5	16	0	1	1	3	5	0	0	0	0	0	0	0	0	0	0
3:00 AM - 4:00 AM	0	0	0	1	1	6	13	18	32	68	0	1	6	7	14	0	0	0	0	0	0	0	0	0	0
4:00 AM - 5:00 AM	0	0	0	0	0	22	21	49	60	151	6	6	11	16	39	0	0	0	0	0	0	0	0	0	0
5:00 AM - 6:00 AM	0	0	0	0	0	32	39	47	61	179	16	16	22	29	82	0	0	0	0	0	0	1	1	0	2
6:00 AM - 7:00 AM	0	0	1	0	1	34	60	66	69	228	14	22	21	19	75	0	0	0	0	0	1	1	2	3	7
7:00 AM - 8:00 AM	1	2	1	0	4	74	73	71	79	296	19	25	19	23	86	0	0	0	0	0	2	1	2	1	5
8:00 AM - 9:00 AM	1	0	0	0	1	68	82	49	48	247	19	19	17	22	75	0	0	0	0	0	2	1	3	1	6
9:00 AM - 10:00 AM	1	1	1	1	3	37	41	41	36	153	13	20	14	11	57	0	0	0	0	0	2	2	2	2	6
10:00 AM - 11:00 AM	0	1	0	2	3	39	46	38	47	169	12	17	14	11	53	0	0	0	0	0	2	1	1	1	4
11:00 AM - 12:00 PM	1	0	0	0	1	34	33	38	36	141	15	13	13	12	52	0	0	0	0	0	2	1	2	0	5
12:00 PM - 1:00 PM	0	0	0	1	1	30	36	49	63	177	17	17	12	18	63	0	0	0	0	0	2	2	2	4	10
1:00 PM - 2:00 PM	0	0	1	0	1	46	43	41	52	182	14	12	14	18	57	0	0	0	0	0	3	0	2	1	6
2:00 PM - 3:00 PM	0	0	0	0	0	48	49	36	43	176	15	13	20	16	63	0	0	0	0	0	3	3	2	3	9
3:00 PM - 4:00 PM	1	0	2	1	4	37	47	43	47	174	20	11	14	17	61	0	0	0	0	0	4	0	5	2	11
4:00 PM - 5:00 PM	1	1	0	0	1	44	40	52	44	180	11	11	14	18	53	0	0	0	0	0	2	2	1	2	5
5:00 PM - 6:00 PM	1	1	0	1	2	43	52	54	54	203	10	15	14	8	46	0	0	0	0	0	1	1	1	1	3
6:00 PM - 7:00 PM	0	1	1	1	2	53	38	32	36	158	7	9	9	12	36	0	0	0	0	0	2	0	1	1	3
7:00 PM - 8:00 PM	0	0	0	1	1	25	26	31	29	110	6	7	6	8	27	0	0	0	0	0	1	0	1	1	3
8:00 PM - 9:00 PM	0	0	1	0	1	28	22	26	35	110	8	8	6	8	28	0	0	0	0	0	1	1	1	0	3
9:00 PM - 10:00 PM	1	1	0	0	1	23	27	29	26	105	3	7	11	8	29	0	0	0	0	0	1	1	1	1	3
10:00 PM - 11:00 PM	0	0	0	0	0	22	18	15	15	69	3	2	2	2	8	0	0	0	0	0	0	1	0	0	1
11:00 PM - 12:00 AM	0	0	0	1	1	10	10	8	9	36	1	2	1	1	5	0	0	0	0	0	0	0	0	0	0
Total	25					3349					1013					0					88				
Percentage	0.5%					70.2%					21.2%					0.0%					1.8%				

Hour	Class 6					Class 7					Class 8					Class 9					Class 10				
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T
12:00 AM - 1:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0
1:00 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3	0	0	0	0	0
2:00 AM-3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
3:00 AM - 4:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM - 5:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	2	1	0	2	0	0	0	0	0
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3	0	2	1	0	3	0	0	0	0	0
6:00 AM - 7:00 AM	0	0	0	1	1	0	0	0	0	0	0	1	1	0	1	0	0	2	2	3	0	1	1	1	2
7:00 AM - 8:00 AM	0	1	1	1	3	0	0	0	0	0	1	1	1	1	3	2	1	1	2	6	0	0	1	0	1
8:00 AM - 9:00 AM	1	0	0	0	1	0	0	0	0	0	1	1	0	1	3	1	1	1	2	5	1	0	0	0	1
9:00 AM - 10:00 AM	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	1	2	1	0	3	0	0	0	0	0
10:00 AM - 11:00 AM	0	1	0	1	1	0	0	0	0	0	1	0	1	0	1	4	1	1	2	7	0	1	0	1	1
11:00 AM - 12:00 PM	0	1	0	1	2	0	0	0	0	0	1	1	1	1	3	1	2	2	1	5	0	0	0	0	0
12:00 PM - 1:00 PM	0	0	0	0	0	0	1	1	0	2	1	0	1	1	2	2	0	2	1	5	0	0	1	0	1
1:00 PM - 2:00 PM	2	1	0	0	2	1	1	0	0	1	1	1	1	1	2	3	1	2	1	5	0	0	1	0	1
2:00 PM - 3:00 PM	1	0	1	0	1	0	1	1	1	2	1	2	2	1	5	0	1	2	3	5	0	0	0	0	0
3:00 PM - 4:00 PM	0	1	0	0	1	1	0	0	1	2	1	1	0	1	3	1	2	1	1	4	0	0	1	0	1
4:00 PM - 5:00 PM	0	0	0	1	1	0	0	0	0	0	1	2	1	0	4	2	1	0	0	3	0	0	0	1	1
5:00 PM - 6:00 PM	0	0	0	1	1	1	1	0	0	2	0	1	1	1	3	1	2	3	1	5	0	0	1	0	1
6:00 PM - 7:00 PM	2	0	1	1	4	0	1	0	1	1	1	2	1	1	5	1	2	0	1	4	0	1	0	0	1
7:00 PM - 8:00 PM	0	0	0	0	0	1	1	1	0	2	0	0	0	1	1	0	0	0	0	0	1	0	0	0	1
8:00 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	0	0	0	0
9:00 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	2	1	3	0	0	0	0	0
10:00 PM - 11:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
11:00 PM - 12:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0
Total	19					11					38					72					7				
Percentage	0.4%					0.2%					0.8%					1.5%					0.1%				

Hour	Class 11					Class 12					Class 13					Class 14					Total
	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	1st	2nd	3rd	4th	T	
12:00 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
1:00 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
2:00 AM-3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
3:00 AM - 4:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
4:00 AM - 5:00 AM	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195
5:00 AM - 6:00 AM	1	1	1	3	5	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	273
6:00 AM - 7:00 AM	2	1	2	1	5	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	322
7:00 AM - 8:00 AM	1	3	4	2	10	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	413
8:00 AM - 9:00 AM	4	4	3	2	11	1	0	1	0	1	2	1	0	0	2	0	0	0	0	0	350
9:00 AM - 10:00 AM	1	3	1	1	6	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	230
10:00 AM - 11:00 AM	1	0	2	1	3	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	242
11:00 AM - 12:00 PM	1	2	2	1	5	0	0	0	0	0	1	1	1	1	2	0	0	0	0	0	214
12:00 PM - 1:00 PM	1	2	3	1	7	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	267
1:00 PM - 2:00 PM	2	1	4	5	12	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	270
2:00 PM - 3:00 PM	2	2	2	3	8	0	0	0	1	1	1	1	1	1	2	0	0	0	0	0	270
3:00 PM - 4:00 PM	2	3	2	2	9	0	1	0	0	1	0	1	1	1	2	0	0	0	0	0	269
4:00 PM - 5:00 PM	2	5	5	3	14	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	262
5:00 PM - 6:00 PM	5	3	4	4	15	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	279
6:00 PM - 7:00 PM	5	4	0	2	11	0	0	0	0	0	1	1	0	1	2	0	0	0	0	0	224
7:00 PM - 8:00 PM	2	1	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146
8:00 PM - 9:00 PM	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	145
9:00 PM - 10:00 PM	1	1	1	1	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	144
10:00 PM - 11:00 PM	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81
11:00 PM - 12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Total	131					4					19					0					4774
Percentage	2.7%					0.1%					0.4%					0.0%					100.0%

7:00am-8:00am AM PK 402 AM PHF 0.90 3:00pm-4:00pm PM PK 291 PM PHF 0.96 HV Percent 8.1%

8.6%

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

24 Hour Volume Report

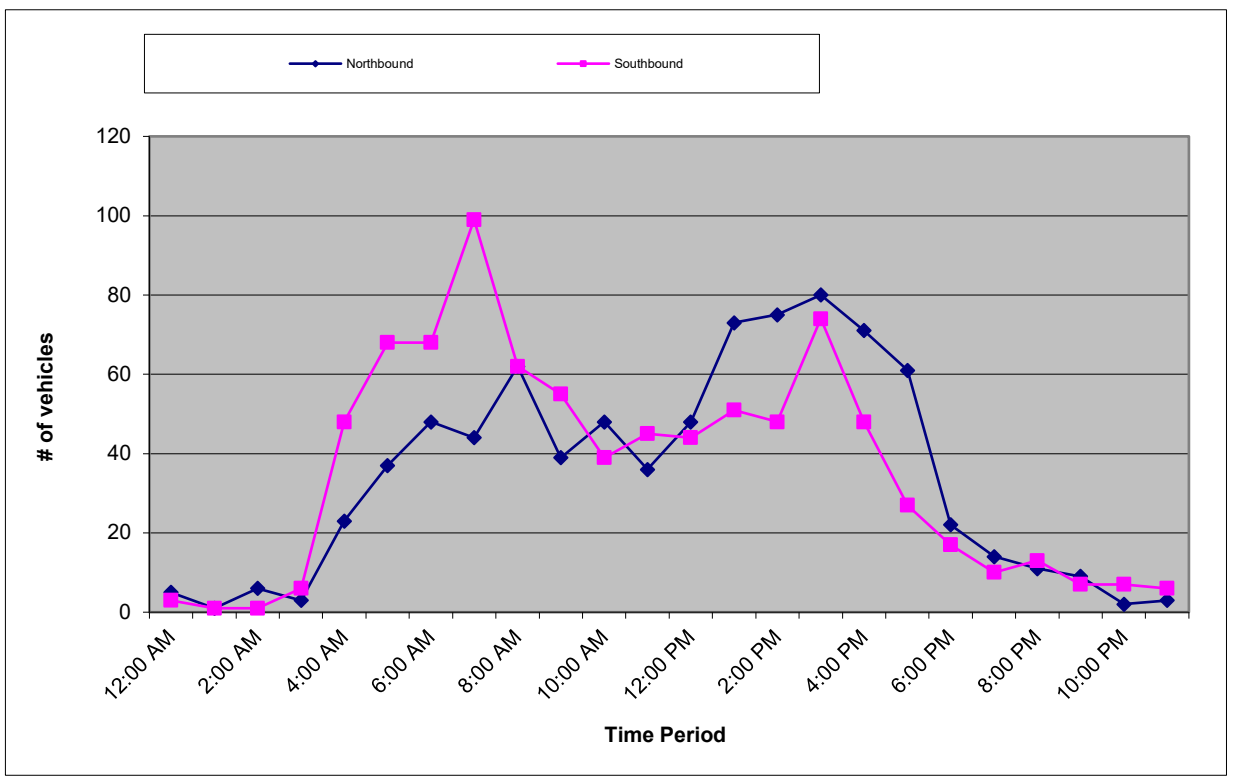
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Shirk St
SEGMENT North of Riggin Ave
COLLECTION DATE Wednesday, May 25, 2022
NUMBER OF LANES 2

LATITUDE 36.3579937
LONGITUDE -119.367853
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	1	2	1	1	**5**	1	0	0	2	**3**	**8**
1:00 AM	0	0	0	1	**1**	1	0	0	0	**1**	**2**
2:00 AM	1	4	1	0	**6**	0	0	0	1	**1**	**7**
3:00 AM	3	0	0	0	**3**	1	1	1	3	**6**	**9**
4:00 AM	7	4	6	6	**23**	3	5	16	24	**48**	**71**
5:00 AM	5	12	11	9	**37**	13	17	15	23	**68**	**105**
6:00 AM	15	16	6	11	**48**	7	14	16	31	**68**	**116**
7:00 AM	6	13	6	19	**44**	13	17	31	38	**99**	**143**
8:00 AM	18	14	16	14	**62**	23	17	8	14	**62**	**124**
9:00 AM	14	6	12	7	**39**	2	15	17	21	**55**	**94**
10:00 AM	15	14	4	15	**48**	6	10	13	10	**39**	**87**
11:00 AM	6	13	8	9	**36**	14	9	9	13	**45**	**81**
12:00 PM	9	9	17	13	**48**	6	13	15	10	**44**	**92**
1:00 PM	19	15	22	17	**73**	13	9	14	15	**51**	**124**
2:00 PM	15	15	27	18	**75**	12	10	14	12	**48**	**123**
3:00 PM	27	12	25	16	**80**	15	19	27	13	**74**	**154**
4:00 PM	20	21	23	7	**71**	12	14	9	13	**48**	**119**
5:00 PM	29	12	11	9	**61**	9	10	4	4	**27**	**88**
6:00 PM	6	6	6	4	**22**	5	4	6	2	**17**	**39**
7:00 PM	2	4	5	3	**14**	1	4	4	1	**10**	**24**
8:00 PM	2	5	1	3	**11**	5	2	4	2	**13**	**24**
9:00 PM	3	3	0	3	**9**	2	2	3	0	**7**	**16**
10:00 PM	0	0	1	1	**2**	2	3	1	1	**7**	**9**
11:00 PM	1	1	0	1	**3**	2	1	3	0	**6**	**9**
Total	**49.2%**				**821**	**50.8%**				**847**	
	1668										

AM% 50.8% **AM Peak** **AM P.H.F.**
PM% 49.2% **PM Peak** **PM P.H.F.**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

24 Hour Volume Report

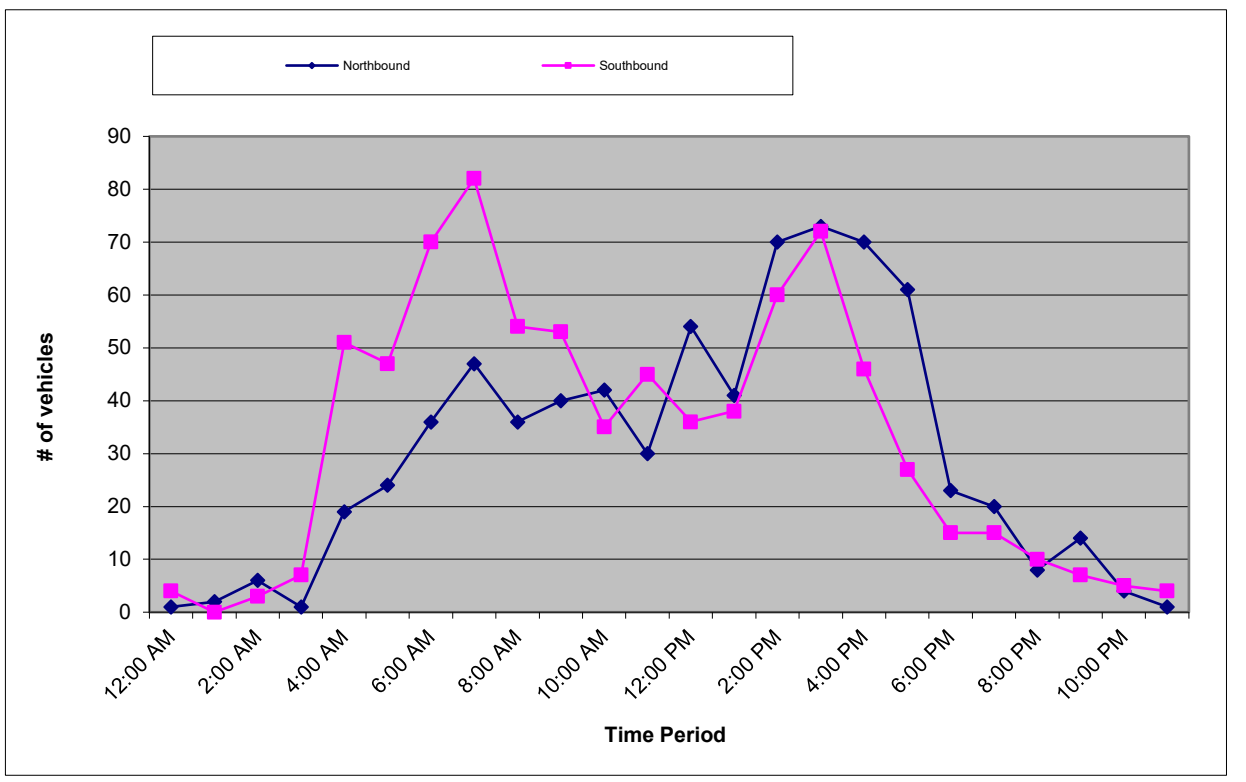
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Shirk St
SEGMENT North of Riggin Ave
COLLECTION DATE Thursday, May 26, 2022
NUMBER OF LANES 2

LATITUDE 36.3579937
LONGITUDE -119.367853
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	0	0	1	0	**1**	0	3	0	1	**4**	**5**
1:00 AM	2	0	0	0	**2**	0	0	0	0	**0**	**2**
2:00 AM	0	3	2	1	**6**	1	0	0	2	**3**	**9**
3:00 AM	1	0	0	0	**1**	0	1	3	3	**7**	**8**
4:00 AM	5	6	2	6	**19**	7	5	15	24	**51**	**70**
5:00 AM	3	8	8	5	**24**	8	7	12	20	**47**	**71**
6:00 AM	9	11	8	8	**36**	6	10	24	30	**70**	**106**
7:00 AM	10	10	10	17	**47**	11	18	24	29	**82**	**129**
8:00 AM	11	6	10	9	**36**	21	17	10	6	**54**	**90**
9:00 AM	18	8	10	4	**40**	9	19	11	14	**53**	**93**
10:00 AM	17	11	7	7	**42**	8	11	12	4	**35**	**77**
11:00 AM	4	8	9	9	**30**	14	16	9	6	**45**	**75**
12:00 PM	13	10	13	18	**54**	8	4	13	11	**36**	**90**
1:00 PM	11	8	14	8	**41**	9	10	7	12	**38**	**79**
2:00 PM	15	15	24	16	**70**	21	11	16	12	**60**	**130**
3:00 PM	17	10	25	21	**73**	15	16	28	13	**72**	**145**
4:00 PM	30	12	20	8	**70**	12	13	9	12	**46**	**116**
5:00 PM	19	20	7	15	**61**	3	9	10	5	**27**	**88**
6:00 PM	6	4	7	6	**23**	2	7	2	4	**15**	**38**
7:00 PM	5	8	4	3	**20**	5	6	1	3	**15**	**35**
8:00 PM	2	3	1	2	**8**	1	3	1	5	**10**	**18**
9:00 PM	3	1	5	5	**14**	1	1	4	1	**7**	**21**
10:00 PM	3	0	1	0	**4**	3	2	0	0	**5**	**9**
11:00 PM	0	0	0	1	**1**	2	1	0	1	**4**	**5**
Total	**47.9%**				**723**	**52.1%**				**786**	
	1509										

AM%	**48.7%**	**AM Peak**	**140**	**7:15 am to 8:15 am**	**AM P.H.F.**	**0.76**
PM%	**51.3%**	**PM Peak**	**155**	**3:15 pm to 4:15 pm**	**PM P.H.F.**	**0.73**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

2-Day Average Count Report

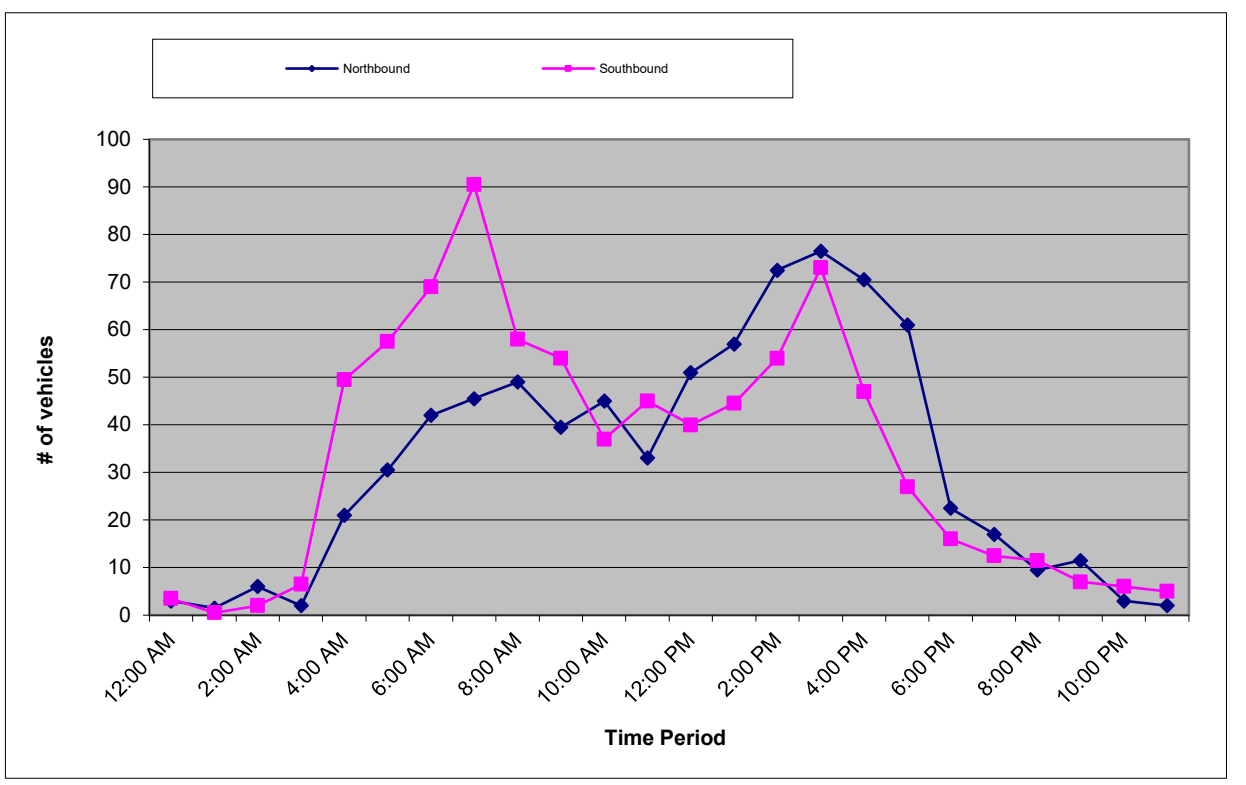
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Shirk St
SEGMENT North of Riggin Ave
COLLECTION DATE
NUMBER OF LANES 2

LATITUDE 36.3579937
LONGITUDE -119.367853
WEATHER Clear

	Northbound					Southbound					Hourly		
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**		
12:00 AM	1	1	1	1	**3**	1	2	0	2	**3.5**	**6.5**		
1:00 AM	1	0	0	1	**1.5**	1	0	0	0	**0.5**	**2**		
2:00 AM	1	4	2	1	**6**	1	0	0	2	**2**	**8**		
3:00 AM	2	0	0	0	**2**	1	1	2	3	**6.5**	**8.5**		
4:00 AM	6	5	4	6	**21**	5	5	16	24	**49.5**	**70.5**		
5:00 AM	4	10	10	7	**30.5**	11	12	14	22	**57.5**	**88**		
6:00 AM	12	14	7	10	**42**	7	12	20	31	**69**	**111**		
7:00 AM	8	12	8	18	**45.5**	12	18	28	34	**90.5**	**136**	**PHF**	**0.66019**
8:00 AM	15	10	13	12	**49**	22	17	9	10	**58**	**107**		
9:00 AM	16	7	11	6	**39.5**	6	17	14	18	**54**	**93.5**		
10:00 AM	16	13	6	11	**45**	7	11	13	7	**37**	**82**		
11:00 AM	5	11	9	9	**33**	14	13	9	10	**45**	**78**		
12:00 PM	11	10	15	16	**51**	7	9	14	11	**40**	**91**		
1:00 PM	15	12	18	13	**57**	11	10	11	14	**44.5**	**101.5**		
2:00 PM	15	15	26	17	**72.5**	17	11	15	12	**54**	**126.5**		
3:00 PM	22	11	25	19	**76.5**	15	18	28	13	**73**	**149.5**		
4:00 PM	25	17	22	8	**70.5**	12	14	9	13	**47**	**117.5**	**PHF**	**0.79392**
5:00 PM	24	16	9	12	**61**	6	10	7	5	**27**	**88**		
6:00 PM	6	5	7	5	**22.5**	4	6	4	3	**16**	**38.5**		
7:00 PM	4	6	5	3	**17**	3	5	3	2	**12.5**	**29.5**		
8:00 PM	2	4	1	3	**9.5**	3	3	3	4	**11.5**	**21**		
9:00 PM	3	2	3	4	**11.5**	2	2	4	1	**7**	**18.5**		
10:00 PM	2	0	1	1	**3**	3	3	1	1	**6**	**9**		
11:00 PM	1	1	0	1	**2**	2	1	2	1	**5**	**7**		
Total	**48.6%**				**772**	**51.4%**				**816.5**			
	1588.5												

AM%	**49.8%**	**AM Peak**	**140**	**7:15 am to 8:15 am**	**AM P.H.F.**	**0.76**
PM%	**50.2%**	**PM Peak**	**155**	**3:15 pm to 4:15 pm**	**PM P.H.F.**	**0.73**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

24 Hour Volume Report

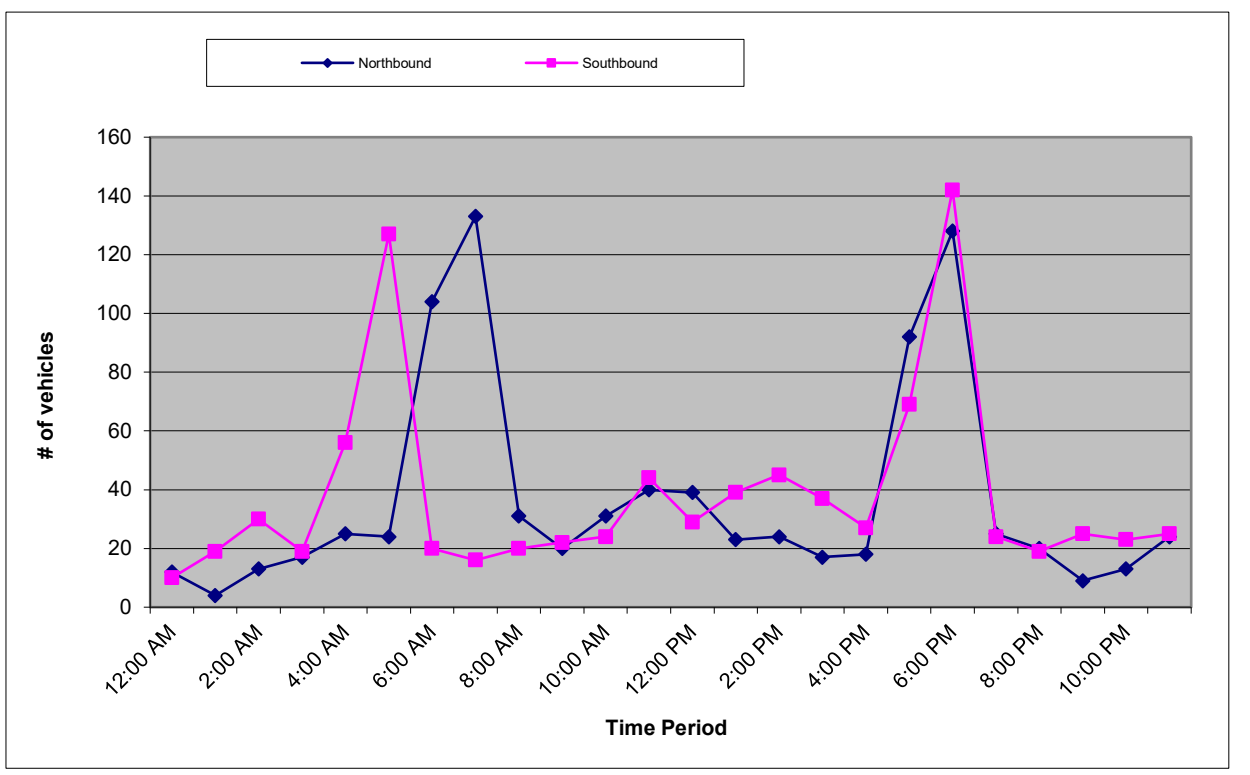
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Kelsey St
SEGMENT North of Riggin Ave
COLLECTION DATE Tuesday, June 28, 2022
NUMBER OF LANES 2

LATITUDE 36.358788
LONGITUDE -119.385763
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	3	7	2	0	**12**	6	1	1	2	**10**	**22**
1:00 AM	0	2	1	1	**4**	7	7	2	3	**19**	**23**
2:00 AM	0	8	3	2	**13**	1	7	19	3	**30**	**43**
3:00 AM	3	0	5	9	**17**	10	2	4	3	**19**	**36**
4:00 AM	2	2	14	7	**25**	7	3	31	15	**56**	**81**
5:00 AM	6	5	2	11	**24**	104	11	7	5	**127**	**151**
6:00 AM	10	16	34	44	**104**	9	1	3	7	**20**	**124**
7:00 AM	44	52	16	21	**133**	8	4	3	1	**16**	**149**
8:00 AM	13	7	4	7	**31**	7	2	8	3	**20**	**51**
9:00 AM	2	8	5	5	**20**	6	6	3	7	**22**	**42**
10:00 AM	3	9	13	6	**31**	1	6	6	11	**24**	**55**
11:00 AM	2	15	14	9	**40**	7	20	9	8	**44**	**84**
12:00 PM	8	11	11	9	**39**	13	0	15	1	**29**	**68**
1:00 PM	4	2	11	6	**23**	7	5	21	6	**39**	**62**
2:00 PM	5	6	9	4	**24**	7	8	23	7	**45**	**69**
3:00 PM	8	0	4	5	**17**	12	7	8	10	**37**	**54**
4:00 PM	0	4	6	8	**18**	9	3	10	5	**27**	**45**
5:00 PM	4	8	35	45	**92**	6	13	42	8	**69**	**161**
6:00 PM	42	67	6	13	**128**	101	28	7	6	**142**	**270**
7:00 PM	16	3	4	2	**25**	4	4	13	3	**24**	**49**
8:00 PM	3	7	5	5	**20**	13	1	3	2	**19**	**39**
9:00 PM	4	0	1	4	**9**	8	6	9	2	**25**	**34**
10:00 PM	6	1	2	4	**13**	6	8	3	6	**23**	**36**
11:00 PM	6	9	4	5	**24**	12	6	3	4	**25**	**49**
Total	**49.3%**				**886**	**50.7%**				**911**	
	1797										

AM%	**47.9%**	**AM Peak**	**193**	**4:30 am to 5:30 am**	**AM P.H.F.**	**0.44**
PM%	**52.1%**	**PM Peak**	**368**	**5:30 pm to 6:30 pm**	**PM P.H.F.**	**0.64**



Metro Traffic Data Inc.
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Hanford, CA 93230

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24 Hour Volume Report

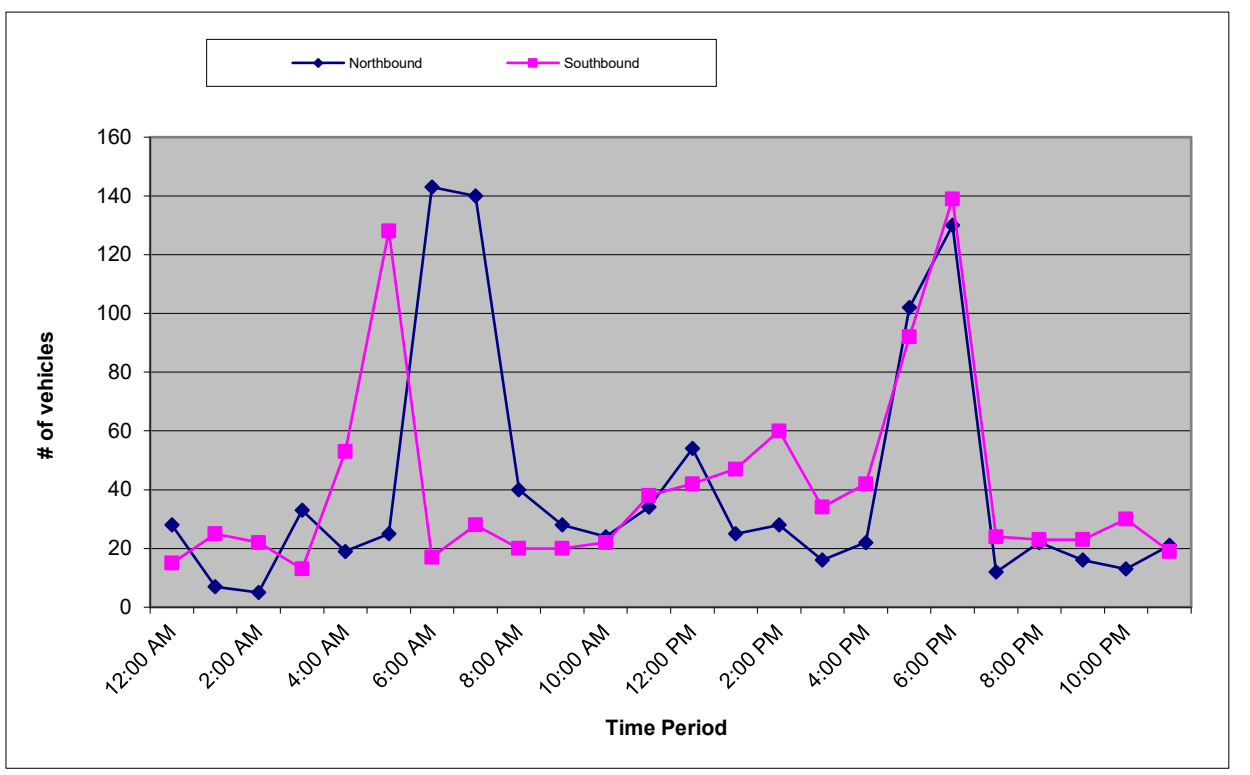
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Kelsey St
SEGMENT North of Riggin Ave
COLLECTION DATE Wednesday, June 29, 2022
NUMBER OF LANES 2

LATITUDE 36.358788
LONGITUDE -119.385763
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	0	6	13	9	**28**	6	1	4	4	**15**	**43**
1:00 AM	0	6	1	0	**7**	6	5	10	4	**25**	**32**
2:00 AM	3	1	0	1	**5**	2	12	2	6	**22**	**27**
3:00 AM	7	5	11	10	**33**	6	3	2	2	**13**	**46**
4:00 AM	3	3	6	7	**19**	4	7	23	19	**53**	**72**
5:00 AM	3	4	6	12	**25**	97	13	12	6	**128**	**153**
6:00 AM	25	19	44	55	**143**	7	7	0	3	**17**	**160**
7:00 AM	53	70	12	5	**140**	6	11	5	6	**28**	**168**
8:00 AM	11	10	8	11	**40**	2	4	7	7	**20**	**60**
9:00 AM	6	10	6	6	**28**	7	5	3	5	**20**	**48**
10:00 AM	1	8	10	5	**24**	4	5	8	5	**22**	**46**
11:00 AM	8	9	6	11	**34**	10	13	9	6	**38**	**72**
12:00 PM	4	16	20	14	**54**	21	7	14	0	**42**	**96**
1:00 PM	5	7	6	7	**25**	13	11	18	5	**47**	**72**
2:00 PM	4	5	9	10	**28**	7	12	26	15	**60**	**88**
3:00 PM	6	6	1	3	**16**	18	6	8	2	**34**	**50**
4:00 PM	5	6	5	6	**22**	13	11	14	4	**42**	**64**
5:00 PM	6	21	35	40	**102**	9	10	51	22	**92**	**194**
6:00 PM	58	56	11	5	**130**	115	9	7	8	**139**	**269**
7:00 PM	1	4	5	2	**12**	7	5	6	6	**24**	**36**
8:00 PM	7	4	2	9	**22**	5	7	3	8	**23**	**45**
9:00 PM	3	5	4	4	**16**	4	6	8	5	**23**	**39**
10:00 PM	2	3	4	4	**13**	5	8	9	8	**30**	**43**
11:00 PM	1	9	9	2	**21**	12	5	2	0	**19**	**40**
Total	**50.3%**				**987**	**49.7%**				**976**	
	1963										

AM%	**47.2%**	**AM Peak**	**242**	**6:30 am to 7:30 am**	**AM P.H.F.**	**0.75**
PM%	**52.8%**	**PM Peak**	**386**	**5:30 pm to 6:30 pm**	**PM P.H.F.**	**0.56**



Metro Traffic Data Inc.
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2-Day Average Count Report

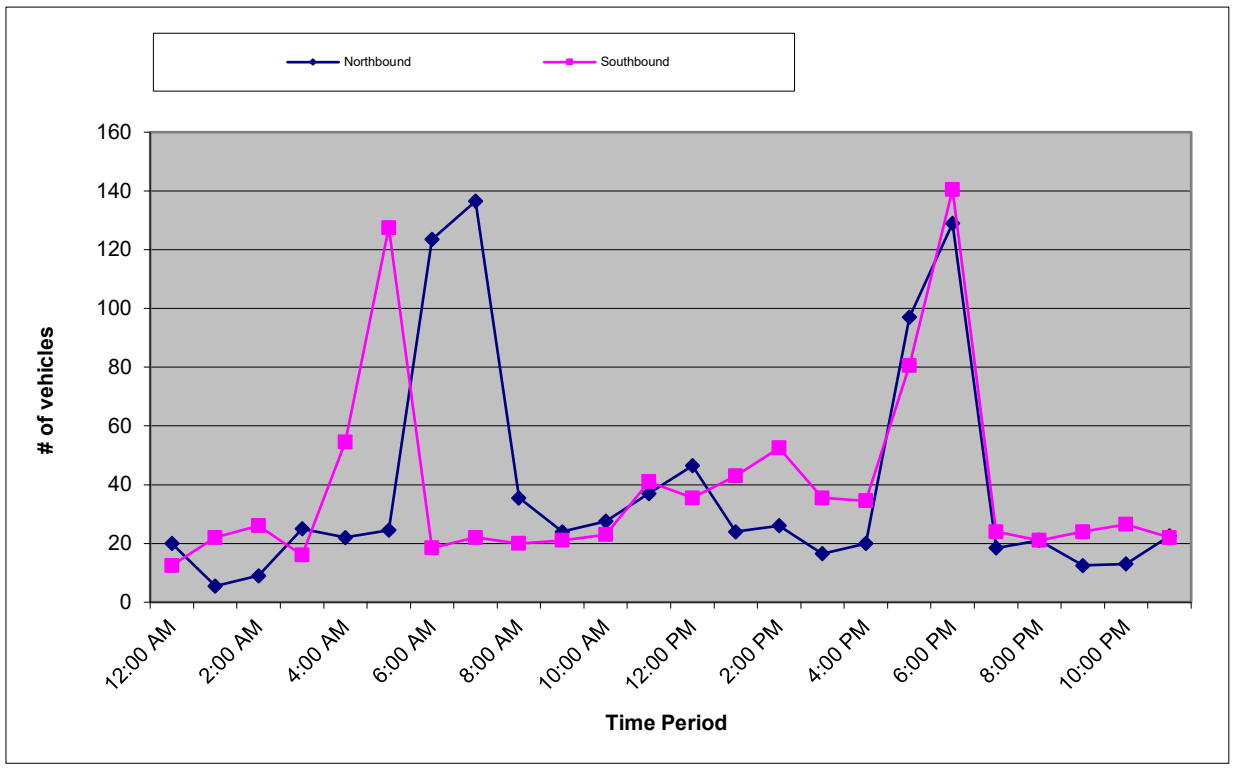
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Kelsey St
SEGMENT North of Riggin Ave
COLLECTION DATE
NUMBER OF LANES 2

LATITUDE 36.358788
LONGITUDE -119.385763
WEATHER Clear

	Northbound					Southbound					Hourly		
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**		
12:00 AM	1.5	6.5	7.5	4.5	**20**	6	1	2.5	3	**12.5**	**32.5**		
1:00 AM	0	4	1	0.5	**5.5**	6.5	6	6	3.5	**22**	**27.5**		
2:00 AM	1.5	4.5	1.5	1.5	**9**	1.5	9.5	10.5	4.5	**26**	**35**		
3:00 AM	5	2.5	8	9.5	**25**	8	2.5	3	2.5	**16**	**41**		
4:00 AM	2.5	2.5	10	7	**22**	5.5	5	27	17	**54.5**	**76.5**		
5:00 AM	4.5	4.5	4	11.5	**24.5**	100.5	12	9.5	5.5	**127.5**	**152**		
6:00 AM	17.5	17.5	39	49.5	**123.5**	8	4	1.5	5	**18.5**	**142**		
7:00 AM	48.5	61	14	13	**136.5**	7	7.5	4	3.5	**22**	**158.5**	**PHF**	**0.57847**
8:00 AM	12	8.5	6	9	**35.5**	4.5	3	7.5	5	**20**	**55.5**		
9:00 AM	4	9	5.5	5.5	**24**	6.5	5.5	3	6	**21**	**45**		
10:00 AM	2	8.5	11.5	5.5	**27.5**	2.5	5.5	7	8	**23**	**50.5**		
11:00 AM	5	12	10	10	**37**	8.5	16.5	9	7	**41**	**78**		
12:00 PM	6	13.5	15.5	11.5	**46.5**	17	3.5	14.5	0.5	**35.5**	**82**		
1:00 PM	4.5	4.5	8.5	6.5	**24**	10	8	19.5	5.5	**43**	**67**		
2:00 PM	4.5	5.5	9	7	**26**	7	10	24.5	11	**52.5**	**78.5**		
3:00 PM	7	3	2.5	4	**16.5**	15	6.5	8	6	**35.5**	**52**		
4:00 PM	2.5	5	5.5	7	**20**	11	7	12	4.5	**34.5**	**54.5**		
5:00 PM	5	14.5	35	42.5	**97**	7.5	11.5	46.5	15	**80.5**	**177.5**	**PHF**	**0.54448**
6:00 PM	50	61.5	8.5	9	**129**	108	18.5	7	7	**140.5**	**269.5**		
7:00 PM	8.5	3.5	4.5	2	**18.5**	5.5	4.5	9.5	4.5	**24**	**42.5**		
8:00 PM	5	5.5	3.5	7	**21**	9	4	3	5	**21**	**42**		
9:00 PM	3.5	2.5	2.5	4	**12.5**	6	6	8.5	3.5	**24**	**36.5**		
10:00 PM	4	2	3	4	**13**	5.5	8	6	7	**26.5**	**39.5**		
11:00 PM	3.5	9	6.5	3.5	**22.5**	12	5.5	2.5	2	**22**	**44.5**		
Total	**49.8%**				**936.5**	**50.2%**				**943.5**			
	1880												

AM%	**47.6%**	**AM Peak**	**211**	**6:30 am to 7:30 am**	**AM P.H.F.**	**0.89**
PM%	**52.4%**	**PM Peak**	**328**	**5:30 pm to 6:30 pm**	**PM P.H.F.**	**0.65**



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24 Hour Volume Report

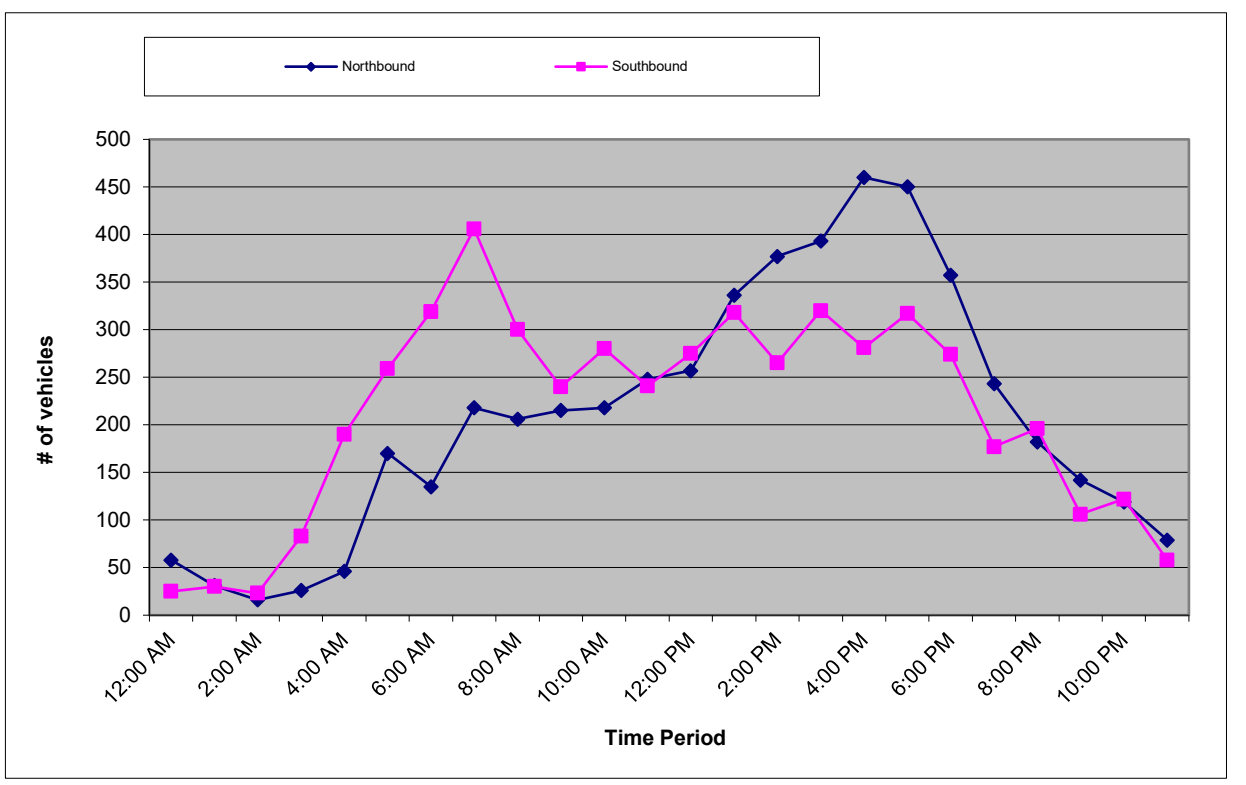
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Riggin Ave
SEGMENT Between Kelsey / Riggin
COLLECTION DATE Tuesday, June 28, 2022
NUMBER OF LANES 2

LATITUDE 36.35631247
LONGITUDE -119.3773127
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	17	19	15	7	**58**	7	6	6	6	**25**	**83**
1:00 AM	5	2	14	10	**31**	6	3	10	11	**30**	**61**
2:00 AM	4	1	7	4	**16**	7	5	7	4	**23**	**39**
3:00 AM	4	7	6	9	**26**	14	13	14	42	**83**	**109**
4:00 AM	5	8	17	16	**46**	30	34	49	77	**190**	**236**
5:00 AM	62	27	41	40	**170**	57	46	78	78	**259**	**429**
6:00 AM	32	30	25	48	**135**	76	95	73	75	**319**	**454**
7:00 AM	56	55	53	54	**218**	90	114	97	105	**406**	**624**
8:00 AM	70	50	48	38	**206**	76	62	76	86	**300**	**506**
9:00 AM	41	55	60	59	**215**	58	52	65	65	**240**	**455**
10:00 AM	74	42	57	45	**218**	73	65	84	58	**280**	**498**
11:00 AM	55	61	62	70	**248**	60	61	69	51	**241**	**489**
12:00 PM	74	61	66	56	**257**	66	76	77	56	**275**	**532**
1:00 PM	58	61	119	98	**336**	77	61	89	91	**318**	**654**
2:00 PM	75	92	111	99	**377**	58	66	85	56	**265**	**642**
3:00 PM	80	98	100	115	**393**	69	77	82	92	**320**	**713**
4:00 PM	93	128	108	131	**460**	62	59	84	76	**281**	**741**
5:00 PM	126	113	112	99	**450**	71	64	91	91	**317**	**767**
6:00 PM	144	82	65	66	**357**	67	97	50	60	**274**	**631**
7:00 PM	78	68	53	44	**243**	40	45	48	44	**177**	**420**
8:00 PM	40	49	61	32	**182**	42	53	55	46	**196**	**378**
9:00 PM	40	40	39	23	**142**	31	18	17	40	**106**	**248**
10:00 PM	40	36	28	15	**119**	50	33	20	19	**122**	**241**
11:00 PM	16	17	27	19	**79**	22	15	11	10	**58**	**137**
Total	**49.4%**				**4982**	**50.6%**				**5105**	
	10087										

AM%	**39.5%**	**AM Peak**	**624**	**7:15 am to 8:15 am**	**AM P.H.F.**	**0.92**
PM%	**60.5%**	**PM Peak**	**784**	**4:45 pm to 5:45 pm**	**PM P.H.F.**	**0.95**



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24 Hour Volume Report

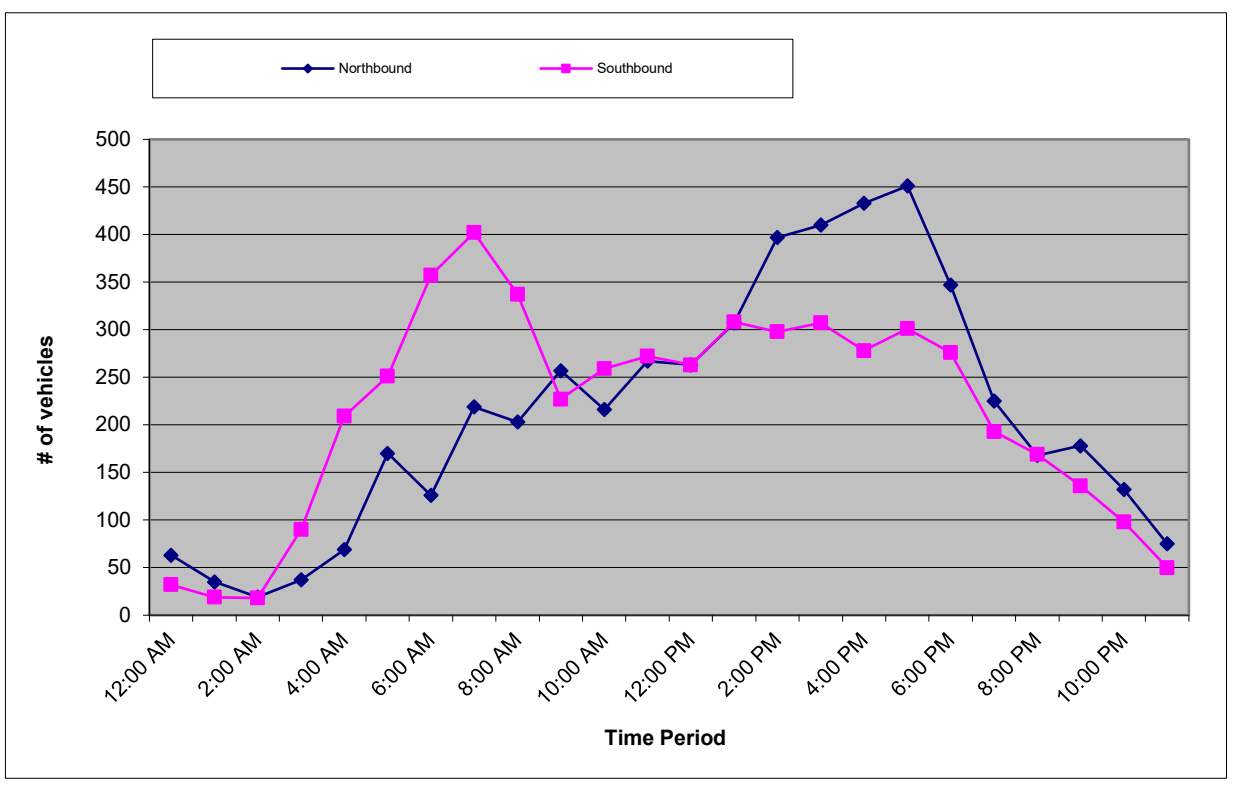
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Riggin Ave
SEGMENT Between Kelsey / Riggin
COLLECTION DATE Wednesday, June 29, 2022
NUMBER OF LANES 2

LATITUDE 36.35631247
LONGITUDE -119.3773127
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	19	16	21	7	**63**	11	10	6	5	**32**	**95**
1:00 AM	12	9	11	3	**35**	7	2	7	3	**19**	**54**
2:00 AM	3	2	10	4	**19**	3	4	6	5	**18**	**37**
3:00 AM	13	1	16	7	**37**	6	13	33	38	**90**	**127**
4:00 AM	11	8	20	30	**69**	24	33	78	74	**209**	**278**
5:00 AM	66	28	33	43	**170**	49	59	59	84	**251**	**421**
6:00 AM	32	24	35	35	**126**	88	78	84	107	**357**	**483**
7:00 AM	42	67	54	56	**219**	98	102	87	115	**402**	**621**
8:00 AM	55	51	38	59	**203**	88	84	84	81	**337**	**540**
9:00 AM	57	73	77	50	**257**	52	57	54	64	**227**	**484**
10:00 AM	57	42	46	71	**216**	62	54	69	74	**259**	**475**
11:00 AM	56	60	77	74	**267**	75	71	59	67	**272**	**539**
12:00 PM	63	47	77	76	**263**	52	68	69	74	**263**	**526**
1:00 PM	65	76	82	84	**307**	76	61	97	74	**308**	**615**
2:00 PM	91	91	128	87	**397**	69	84	75	70	**298**	**695**
3:00 PM	107	87	114	102	**410**	82	86	86	53	**307**	**717**
4:00 PM	105	99	126	103	**433**	65	65	72	76	**278**	**711**
5:00 PM	118	112	104	117	**451**	58	78	80	85	**301**	**752**
6:00 PM	140	98	63	46	**347**	79	84	57	56	**276**	**623**
7:00 PM	78	62	47	38	**225**	47	51	41	54	**193**	**418**
8:00 PM	35	39	45	49	**168**	47	20	38	64	**169**	**337**
9:00 PM	52	44	41	41	**178**	34	43	30	29	**136**	**314**
10:00 PM	34	49	25	24	**132**	39	15	21	23	**98**	**230**
11:00 PM	15	25	16	19	**75**	16	14	12	8	**50**	**125**
Total	**49.6%**				**5067**	**50.4%**				**5150**	
	10217										

AM% 40.7% **AM Peak** 624 **7:15 am to 8:15 am** **AM P.H.F.** 0.91
PM% 59.3% **PM Peak** 795 **5:15 pm to 6:15 pm** **PM P.H.F.** 0.91



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

2-Day Average Count Report

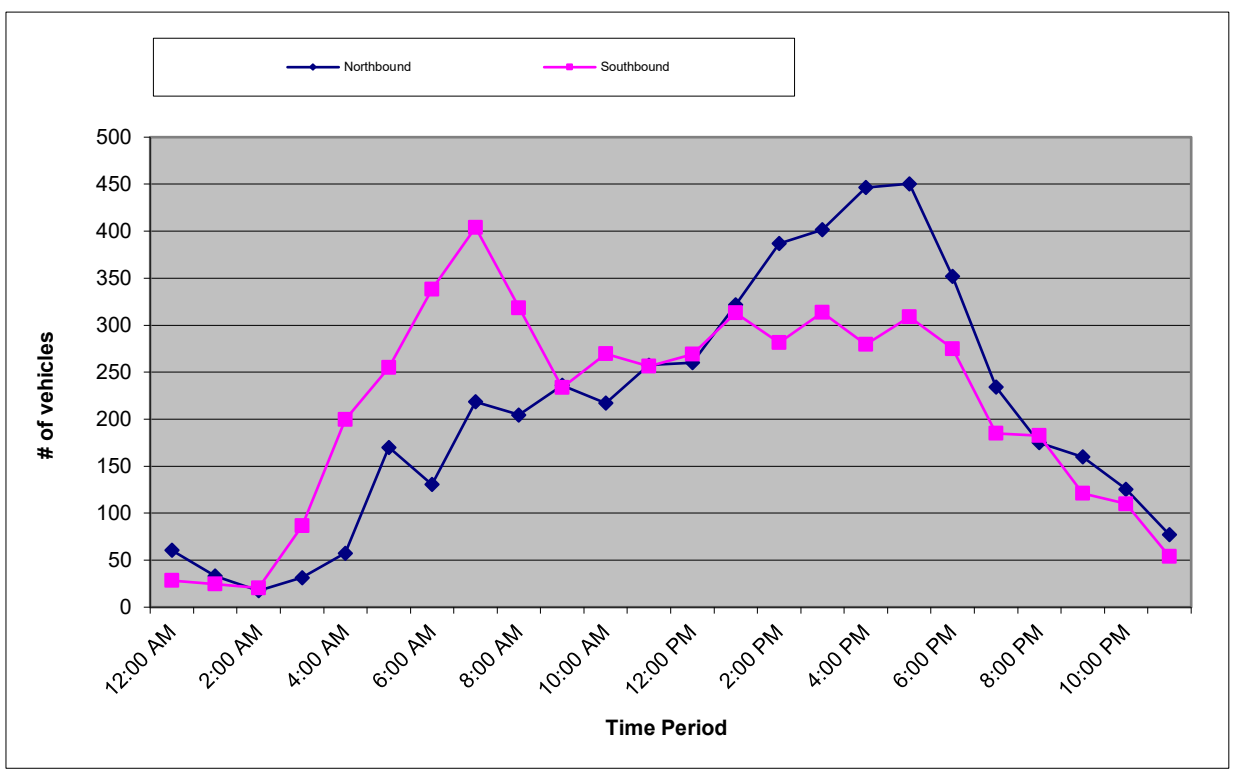
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Riggin Ave
SEGMENT Between Kelsey / Riggin
COLLECTION DATE
NUMBER OF LANES 2

LATITUDE 36.35631247
LONGITUDE -119.3773127
WEATHER Clear

	Northbound					Southbound					Hourly		
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**		
12:00 AM	18	18	18	7	**60.5**	9	8	6	6	**28.5**	**89**		
1:00 AM	9	6	13	7	**33**	7	3	9	7	**24.5**	**57.5**		
2:00 AM	4	2	9	4	**17.5**	5	5	7	5	**20.5**	**38**		
3:00 AM	9	4	11	8	**31.5**	10	13	24	40	**86.5**	**118**		
4:00 AM	8	8	19	23	**57.5**	27	34	64	76	**199.5**	**257**		
5:00 AM	64	28	37	42	**170**	53	53	69	81	**255**	**425**		
6:00 AM	32	27	30	42	**130.5**	82	87	79	91	**338**	**468.5**		
7:00 AM	49	61	54	55	**218.5**	94	108	92	110	**404**	**622.5**	**PHF**	**0.92086**
8:00 AM	63	51	43	49	**204.5**	82	73	80	84	**318.5**	**523**		
9:00 AM	49	64	69	55	**236**	55	55	60	65	**233.5**	**469.5**		
10:00 AM	66	42	52	58	**217**	68	60	77	66	**269.5**	**486.5**		
11:00 AM	56	61	70	72	**257.5**	68	66	64	59	**256.5**	**514**		
12:00 PM	69	54	72	66	**260**	59	72	73	65	**269**	**529**		
1:00 PM	62	69	101	91	**321.5**	77	61	93	83	**313**	**634.5**		
2:00 PM	83	92	120	93	**387**	64	75	80	63	**281.5**	**668.5**		
3:00 PM	94	93	107	109	**401.5**	76	82	84	73	**313.5**	**715**		
4:00 PM	99	114	117	117	**446.5**	64	62	78	76	**279.5**	**726**	**PHF**	**0.93077**
5:00 PM	122	113	108	108	**450.5**	65	71	86	88	**309**	**759.5**		
6:00 PM	142	90	64	56	**352**	73	91	54	58	**275**	**627**		
7:00 PM	78	65	50	41	**234**	44	48	45	49	**185**	**419**		
8:00 PM	38	44	53	41	**175**	45	37	47	55	**182.5**	**357.5**		
9:00 PM	46	42	40	32	**160**	33	31	24	35	**121**	**281**		
10:00 PM	37	43	27	20	**125.5**	45	24	21	21	**110**	**235.5**		
11:00 PM	16	21	22	19	**77**	19	15	12	9	**54**	**131**		
Total	**49.5%**				**5025**	**50.5%**				**5128**			
	10152												

AM%	**40.1%**	**AM Peak**	**140**	**7:15 am to 8:15 am**	**AM P.H.F.**	**0.76**
PM%	**59.9%**	**PM Peak**	**155**	**3:15 pm to 4:15 pm**	**PM P.H.F.**	**0.73**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

24 Hour Volume Report

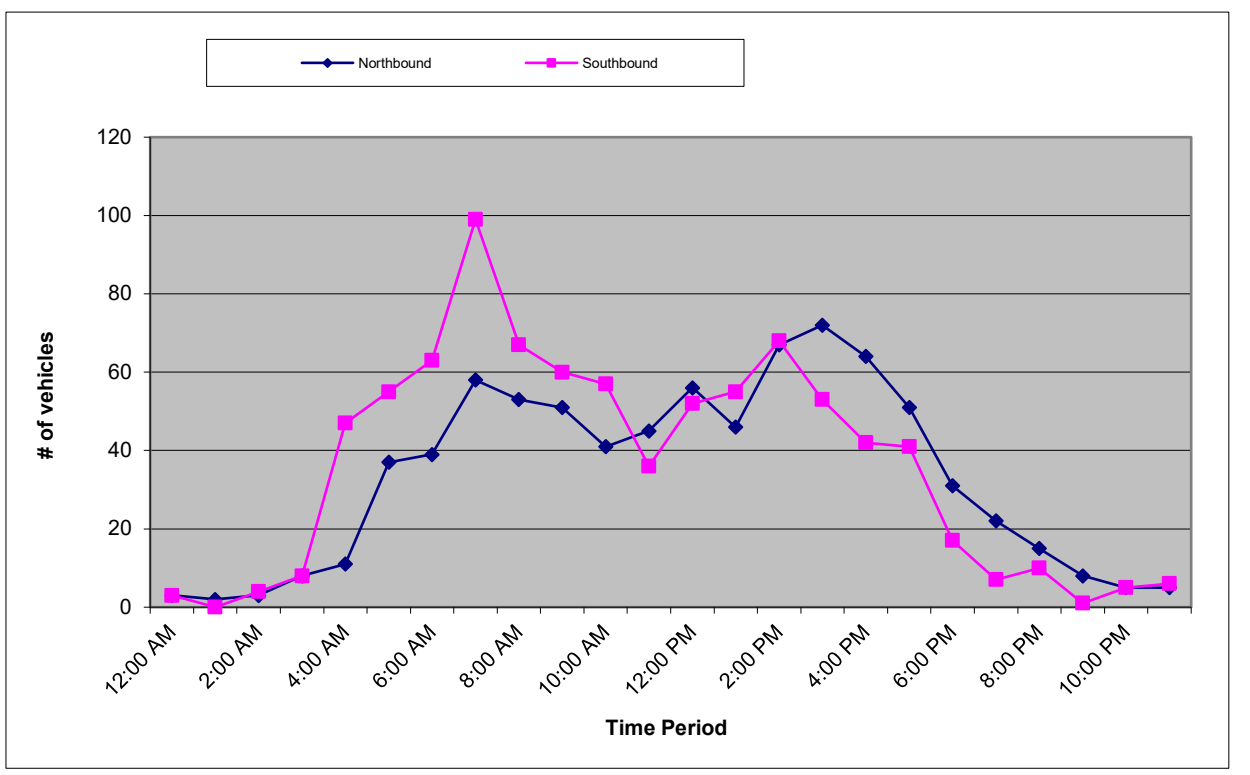
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Shirk St
SEGMENT North of Riggin Ave
COLLECTION DATE Tuesday, June 28, 2022
NUMBER OF LANES 2

LATITUDE 36.3579937
LONGITUDE -119.367853
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	0	2	0	1	**3**	0	0	2	1	**3**	**6**
1:00 AM	2	0	0	0	**2**	0	0	0	0	**0**	**2**
2:00 AM	0	0	0	3	**3**	1	1	1	1	**4**	**7**
3:00 AM	3	0	1	4	**8**	0	2	1	5	**8**	**16**
4:00 AM	1	4	4	2	**11**	5	7	16	19	**47**	**58**
5:00 AM	10	8	8	11	**37**	11	11	8	25	**55**	**92**
6:00 AM	12	13	9	5	**39**	4	12	15	32	**63**	**102**
7:00 AM	12	19	10	17	**58**	22	16	19	42	**99**	**157**
8:00 AM	9	9	17	18	**53**	18	18	19	12	**67**	**120**
9:00 AM	7	12	11	21	**51**	13	19	11	17	**60**	**111**
10:00 AM	12	13	9	7	**41**	10	19	18	10	**57**	**98**
11:00 AM	4	13	15	13	**45**	7	12	9	8	**36**	**81**
12:00 PM	12	7	23	14	**56**	13	9	17	13	**52**	**108**
1:00 PM	5	14	17	10	**46**	17	10	9	19	**55**	**101**
2:00 PM	21	14	22	10	**67**	14	12	26	16	**68**	**135**
3:00 PM	18	18	20	16	**72**	12	11	20	10	**53**	**125**
4:00 PM	19	10	20	15	**64**	20	14	2	6	**42**	**106**
5:00 PM	23	13	9	6	**51**	6	7	14	14	**41**	**92**
6:00 PM	13	8	4	6	**31**	4	7	1	5	**17**	**48**
7:00 PM	6	6	3	7	**22**	4	0	1	2	**7**	**29**
8:00 PM	3	6	4	2	**15**	2	1	3	4	**10**	**25**
9:00 PM	2	1	4	1	**8**	0	1	0	0	**1**	**9**
10:00 PM	1	2	1	1	**5**	0	2	1	2	**5**	**10**
11:00 PM	0	0	2	3	**5**	1	1	2	2	**6**	**11**
Total	**48.1%**				**793**	**51.9%**				**856**	
	1649										

AM%	**51.5%**	**AM Peak**	**157**	**7:00 am to 8:00 am**	**AM P.H.F.**	**0.67**
PM%	**48.5%**	**PM Peak**	**138**	**1:45 pm to 2:45 pm**	**PM P.H.F.**	**0.72**



Metro Traffic Data Inc.
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Hanford, CA 93230

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24 Hour Volume Report

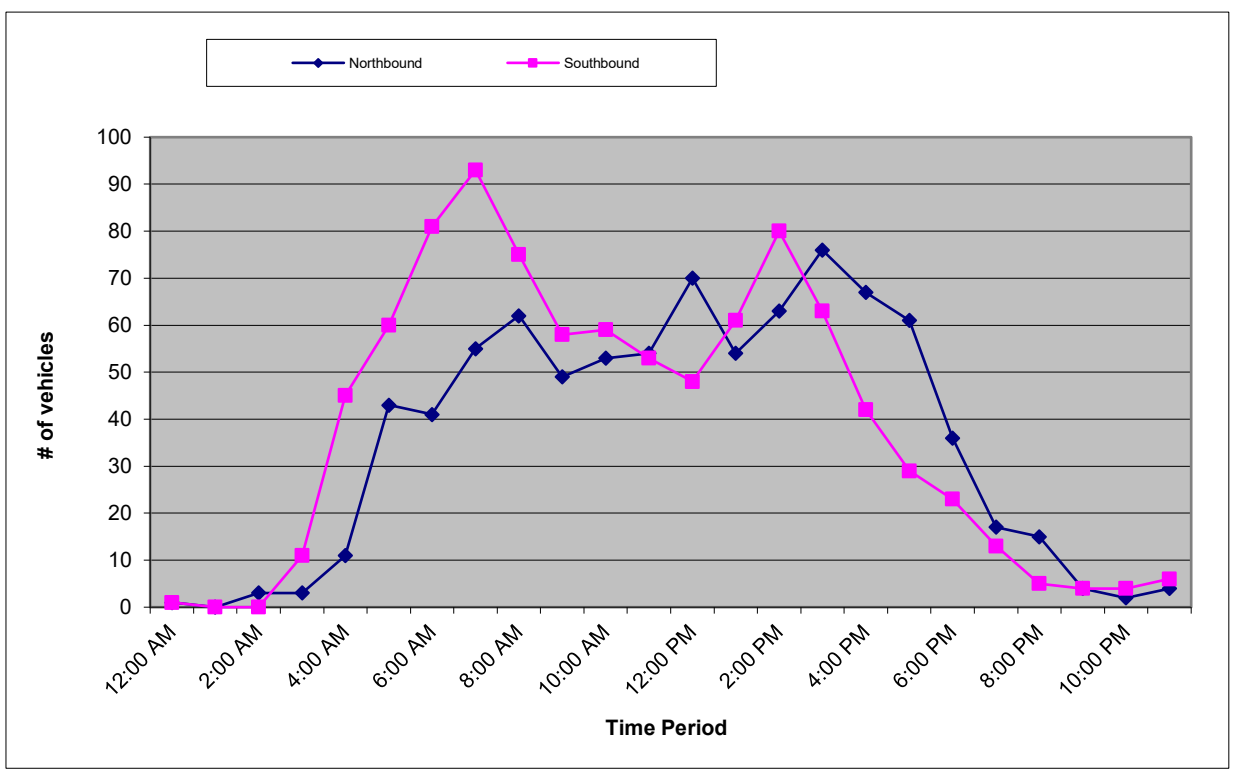
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Shirk St
SEGMENT North of Riggin Ave
COLLECTION DATE Wednesday, June 29, 2022
NUMBER OF LANES 2

LATITUDE 36.3579937
LONGITUDE -119.367853
WEATHER Clear

	Northbound					Southbound					Hourly
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**
12:00 AM	0	0	0	1	**1**	0	0	1	0	**1**	**2**
1:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	**0**
2:00 AM	0	0	0	3	**3**	0	0	0	0	**0**	**3**
3:00 AM	2	0	0	1	**3**	1	3	2	5	**11**	**14**
4:00 AM	3	3	3	2	**11**	5	8	10	22	**45**	**56**
5:00 AM	7	12	11	13	**43**	12	14	12	22	**60**	**103**
6:00 AM	11	9	11	10	**41**	16	10	21	34	**81**	**122**
7:00 AM	15	10	12	18	**55**	21	21	19	32	**93**	**148**
8:00 AM	18	15	15	14	**62**	18	12	20	25	**75**	**137**
9:00 AM	13	11	17	8	**49**	8	21	21	8	**58**	**107**
10:00 AM	14	14	8	17	**53**	16	14	10	19	**59**	**112**
11:00 AM	11	8	18	17	**54**	16	6	20	11	**53**	**107**
12:00 PM	17	14	22	17	**70**	9	9	16	14	**48**	**118**
1:00 PM	15	12	14	13	**54**	20	6	19	16	**61**	**115**
2:00 PM	12	11	26	14	**63**	21	14	21	24	**80**	**143**
3:00 PM	13	23	27	13	**76**	13	7	19	24	**63**	**139**
4:00 PM	20	11	22	14	**67**	16	9	11	6	**42**	**109**
5:00 PM	20	19	15	7	**61**	3	11	7	8	**29**	**90**
6:00 PM	10	8	11	7	**36**	7	11	3	2	**23**	**59**
7:00 PM	3	5	6	3	**17**	4	2	2	5	**13**	**30**
8:00 PM	9	2	2	2	**15**	2	1	1	1	**5**	**20**
9:00 PM	0	0	0	4	**4**	3	1	0	0	**4**	**8**
10:00 PM	0	1	1	0	**2**	1	2	1	0	**4**	**6**
11:00 PM	0	3	0	1	**4**	1	0	3	2	**6**	**10**
Total	**48.0%**				**844**	**52.0%**				**914**	
	1758										

AM%	**51.8%**	**AM Peak**	**148**	**7:45 am to 8:45 am**	**AM P.H.F.**	**0.74**
PM%	**48.2%**	**PM Peak**	**143**	**2:00 pm to 3:00 pm**	**PM P.H.F.**	**0.76**



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2-Day Average Count Report

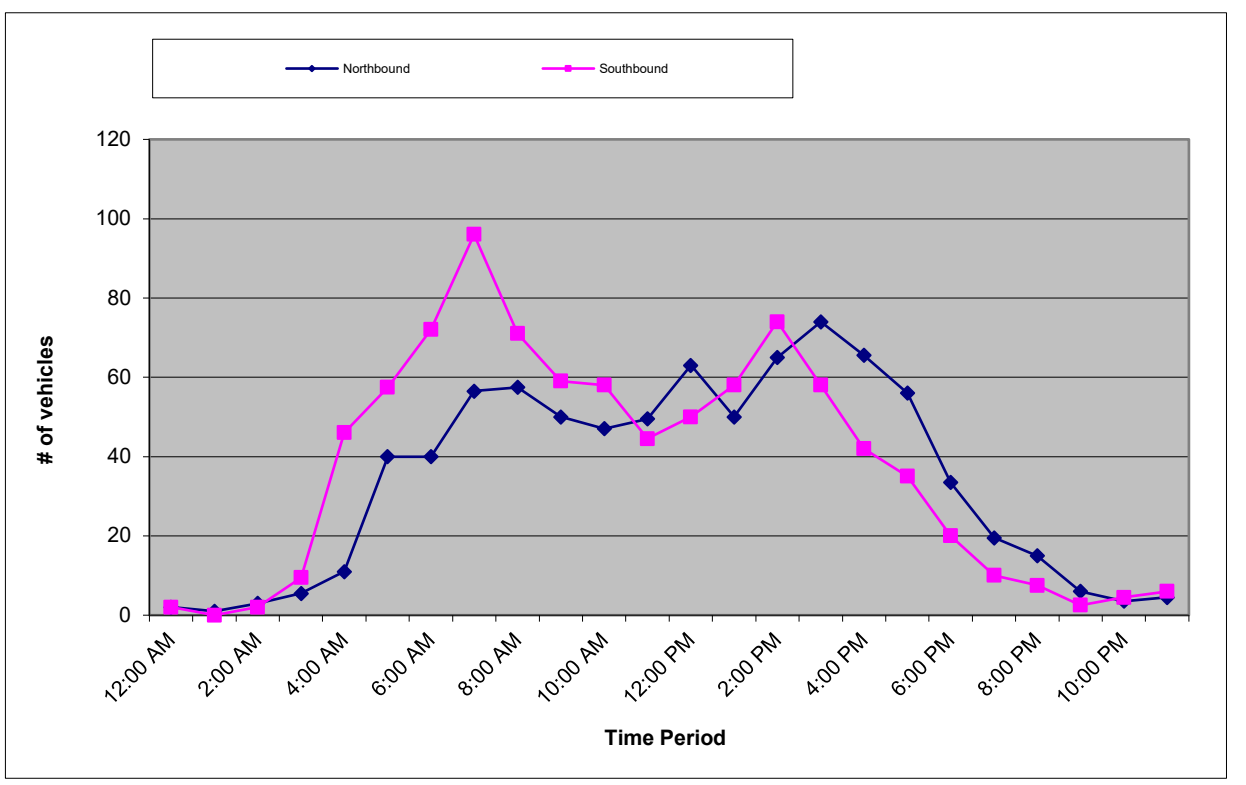
Prepared For: **Kimley-Horn**
401 B St, Suite 600
San Diego, CA 92101

STREET Shirk St
SEGMENT North of Riggin Ave
COLLECTION DATE
NUMBER OF LANES 2

LATITUDE 36.3579937
LONGITUDE -119.367853
WEATHER Clear

	Northbound					Southbound					Hourly		
Hour	:00	:15	:30	:45	**Total**	:00	:15	:30	:45	**Total**	**Totals**		
12:00 AM	0	1	0	1	**2**	0	0	2	1	**2**	**4**		
1:00 AM	1	0	0	0	**1**	0	0	0	0	**0**	**1**		
2:00 AM	0	0	0	3	**3**	1	1	1	1	**2**	**5**		
3:00 AM	3	0	1	3	**5.5**	1	3	2	5	**9.5**	**15**		
4:00 AM	2	4	4	2	**11**	5	8	13	21	**46**	**57**		
5:00 AM	9	10	10	12	**40**	12	13	10	24	**57.5**	**97.5**		
6:00 AM	12	11	10	8	**40**	10	11	18	33	**72**	**112**		
7:00 AM	14	15	11	18	**56.5**	22	19	19	37	**96**	**152.5**	**PHF**	**0.69954**
8:00 AM	14	12	16	16	**57.5**	18	15	20	19	**71**	**128.5**		
9:00 AM	10	12	14	15	**50**	11	20	16	13	**59**	**109**		
10:00 AM	13	14	9	12	**47**	13	17	14	15	**58**	**105**		
11:00 AM	8	11	17	15	**49.5**	12	9	15	10	**44.5**	**94**		
12:00 PM	15	11	23	16	**63**	11	9	17	14	**50**	**113**		
1:00 PM	10	13	16	12	**50**	19	8	14	18	**58**	**108**		
2:00 PM	17	13	24	12	**65**	18	13	24	20	**74**	**139**		
3:00 PM	16	21	24	15	**74**	13	9	20	17	**58**	**132**		
4:00 PM	20	11	21	15	**65.5**	18	12	7	6	**42**	**107.5**	**PHF**	**0.71667**
5:00 PM	22	16	12	7	**56**	5	9	11	11	**35**	**91**		
6:00 PM	12	8	8	7	**33.5**	6	9	2	4	**20**	**53.5**		
7:00 PM	5	6	5	5	**19.5**	4	1	2	4	**10**	**29.5**		
8:00 PM	6	4	3	2	**15**	2	1	2	3	**7.5**	**22.5**		
9:00 PM	1	1	2	3	**6**	2	1	0	0	**2.5**	**8.5**		
10:00 PM	1	2	1	1	**3.5**	1	2	1	1	**4.5**	**8**		
11:00 PM	0	2	1	2	**4.5**	1	1	3	2	**6**	**10.5**		
Total	**48.0%**				**818.5**	**52.0%**				**885**			
	1703.5												

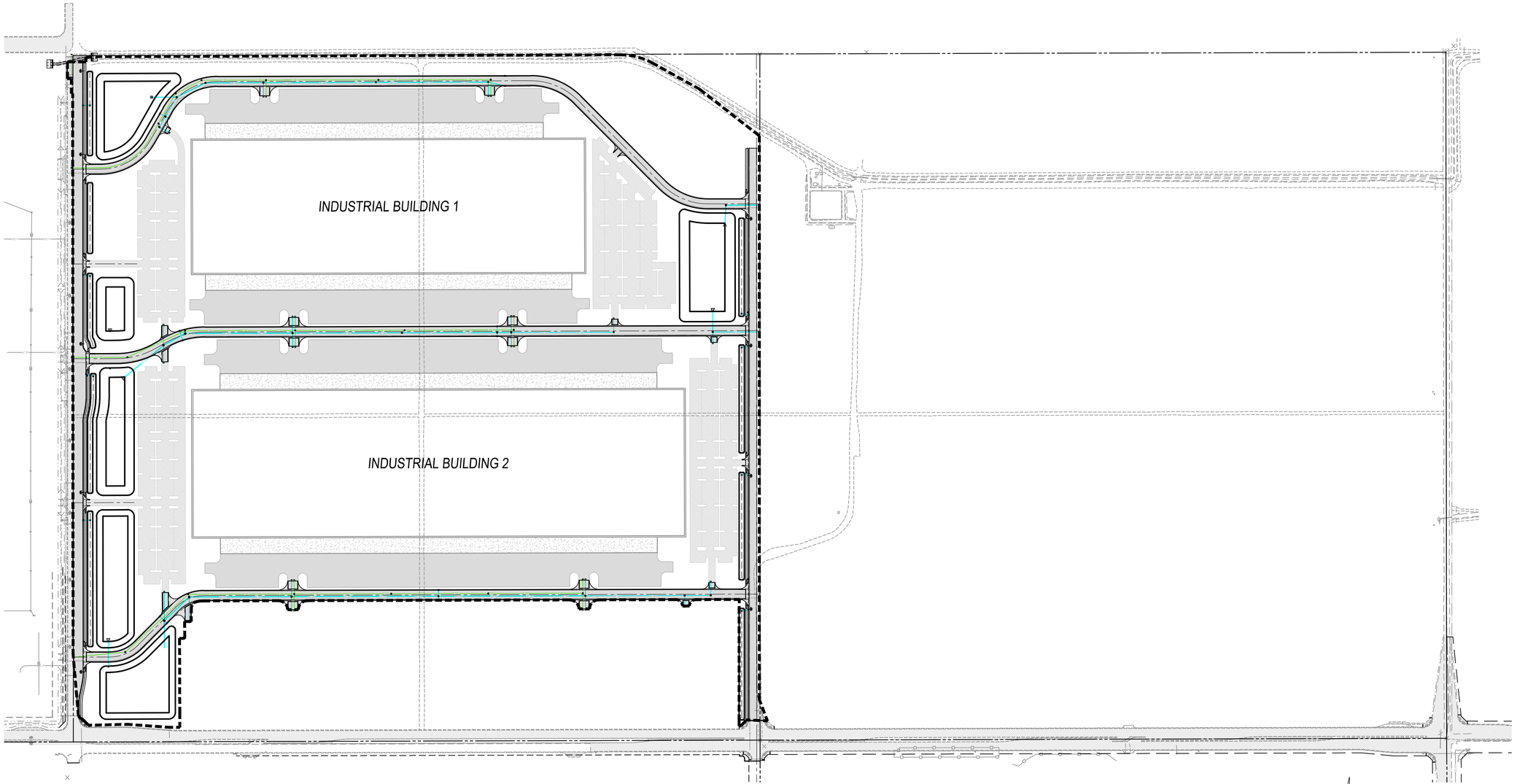
AM%	**51.7%**	**AM Peak**	**140**	**7:15 am to 8:15 am**	**AM P.H.F.**	**0.76**
PM%	**48.3%**	**PM Peak**	**155**	**3:15 pm to 4:15 pm**	**PM P.H.F.**	**0.73**



Count Comparison				
		School	Summer	Change
Kelsey	Daily	1806	1880	75
	AM	153	159	6
	PM	185	178	-7
Riggin	Daily	9488	10152	665
	AM	638	623	-15
	PM	708	726	19
Shirk	Daily	1589	1704	115
	AM	136	153	17
	PM	118	108	-10
Total	**Daily**	**12882**	**13736**	**854**
	AM	**926**	**934**	**8**
	PM	**1010**	**1011**	**2**

D – Project Frontage Improvements

RIGGIN INDUSTRIAL PHASING EXHIBIT (PHASE 1)

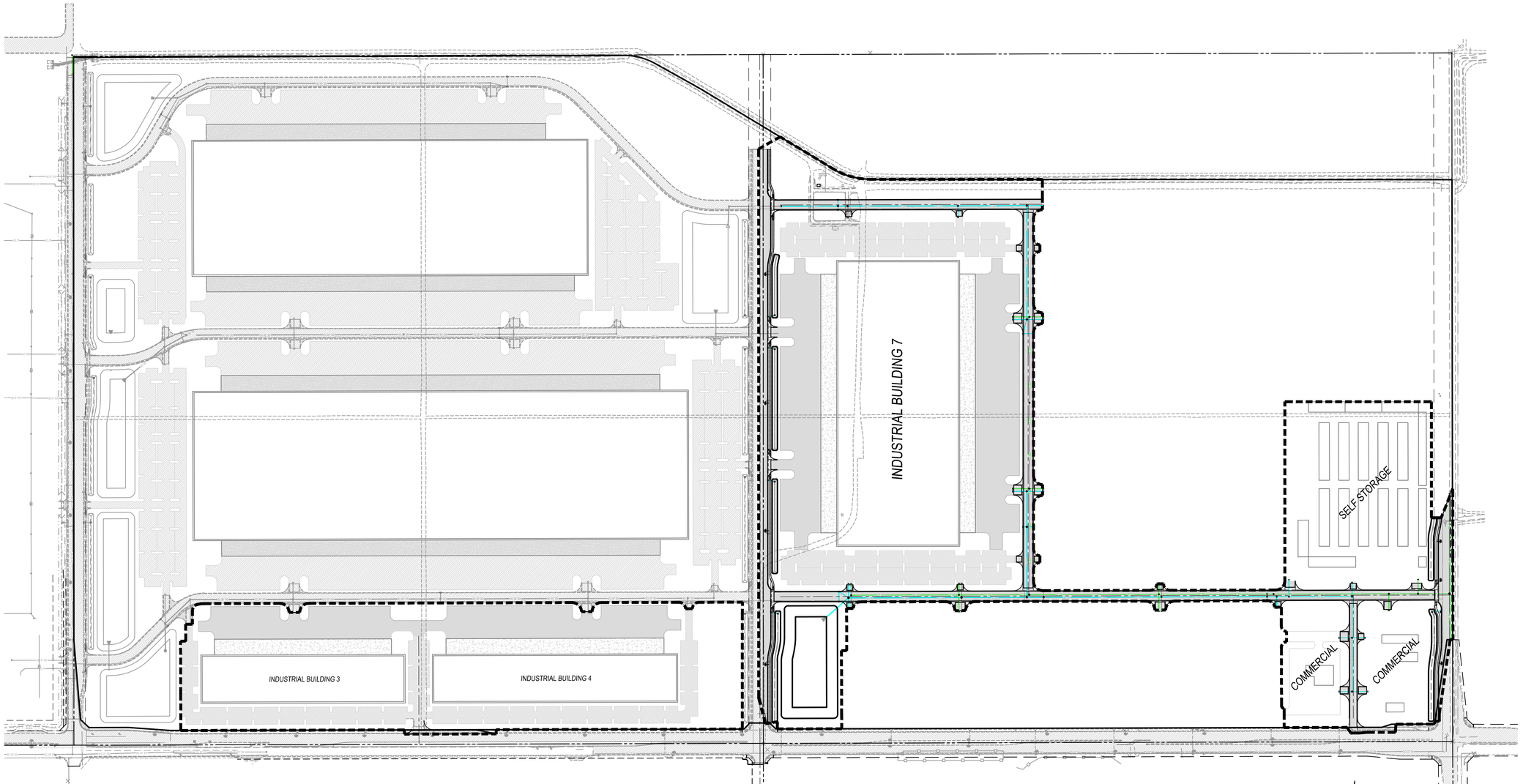


NORTH

200' 0' 200'

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

RIGGIN INDUSTRIAL PHASING EXHIBIT (PHASE 2a-2b)

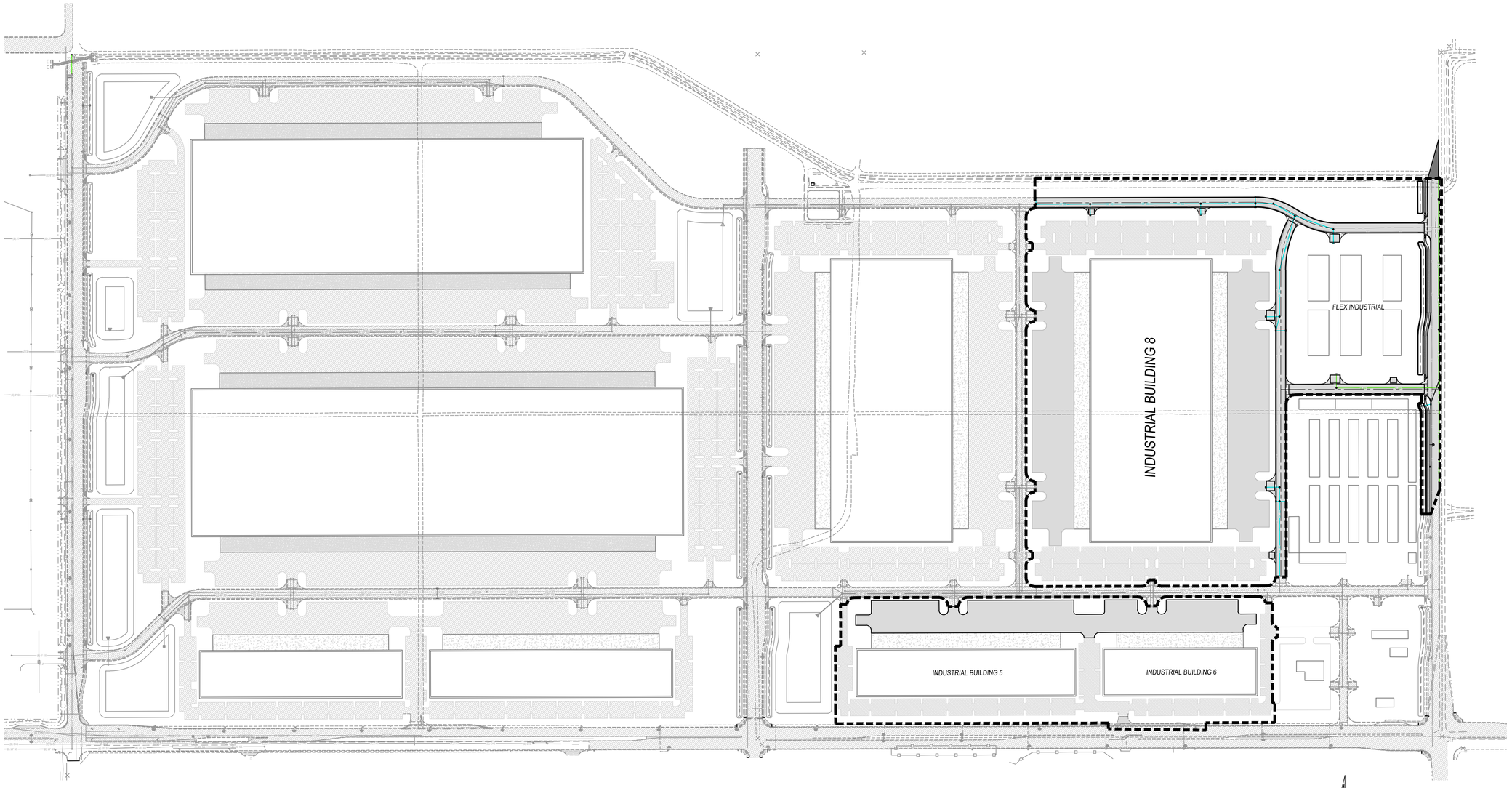


NORTH

200' 0' 200'

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

RIGGIN INDUSTRIAL PHASING EXHIBIT (PHASE 3a-3b)



NORTH

200' 0' 200'

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

E – ITE Trip Generation Excerpts

Land Use: 130
Industrial Park

Description

An industrial park contains several individual industrial or related facilities. It is characterized by a mix of manufacturing, service, and warehouse facilities with a wide variation in the proportion of each type of use from one location to another. Many industrial parks contain highly diversified facilities. Some parks in the database have a large number of small businesses and others have one or two dominant industries. General light industrial (Land Use 110) and manufacturing (Land Use 140) are related uses.

Additional Data

The sites were surveyed in the 1980s, the 2000s, 2010s, and the 2020s in California, Georgia, New Jersey, Massachusetts, New York, Ontario (CAN), and Pennsylvania.

Source Numbers

106, 162, 184, 251, 277, 422, 706, 747, 753, 937, 1032, 1070

Industrial Park
(130)

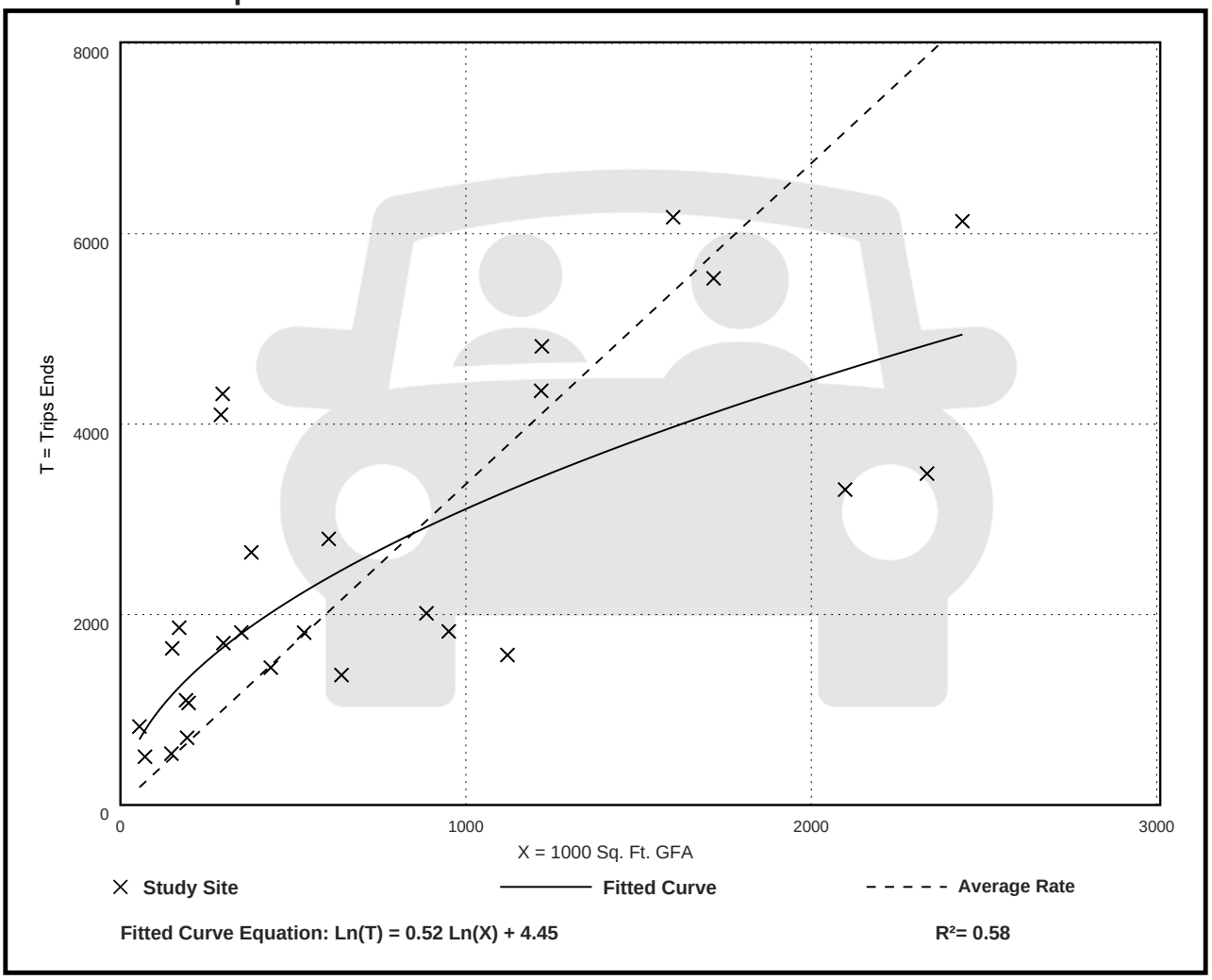
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 27
Avg. 1000 Sq. Ft. GFA: 762
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.37	1.41 - 14.98	2.60

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.52 Ln(X) + 4.45

R^2= 0.58

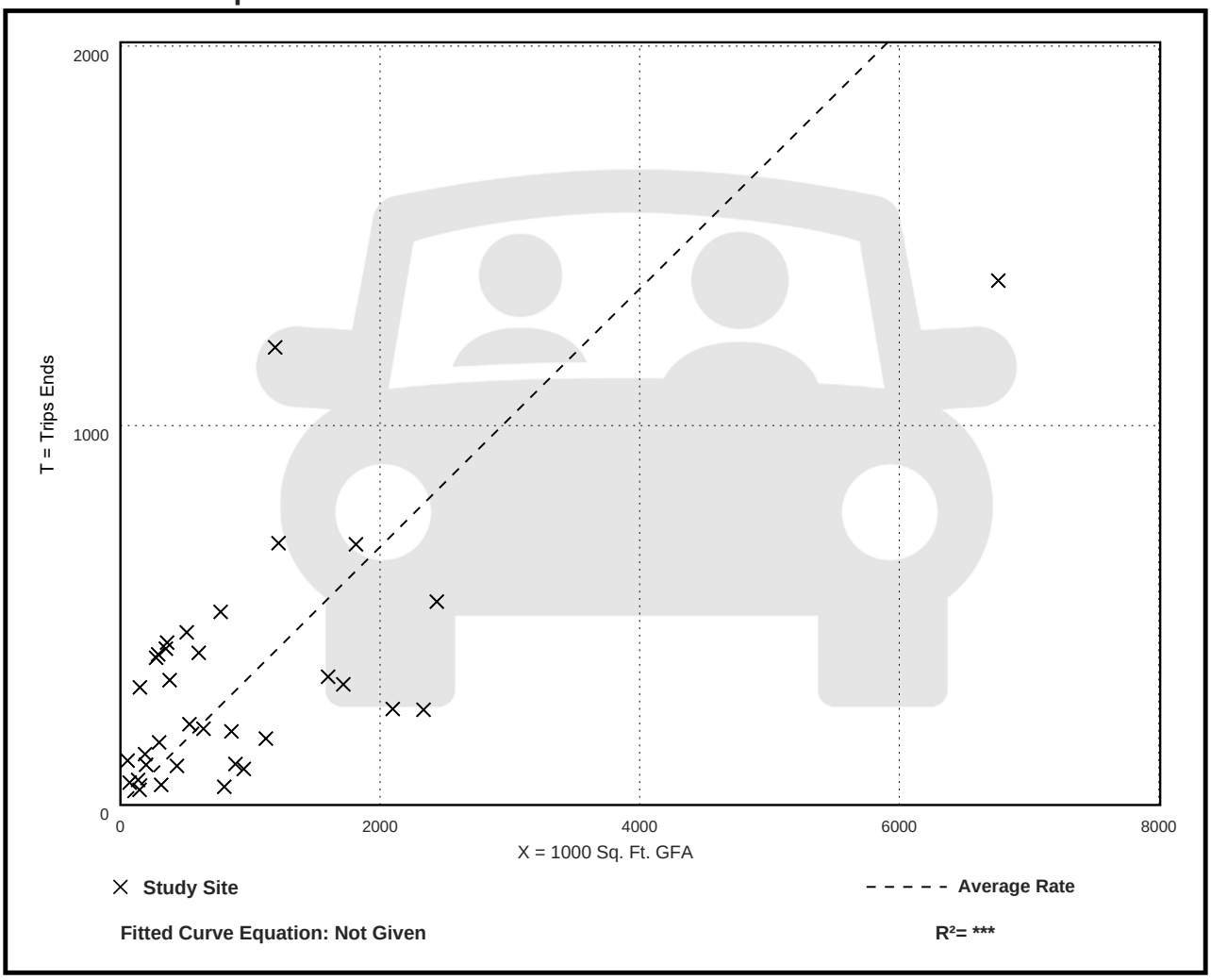
Industrial Park
(130)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 956
Directional Distribution: 81% entering, 19% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.34	0.06 - 2.13	0.33

Data Plot and Equation



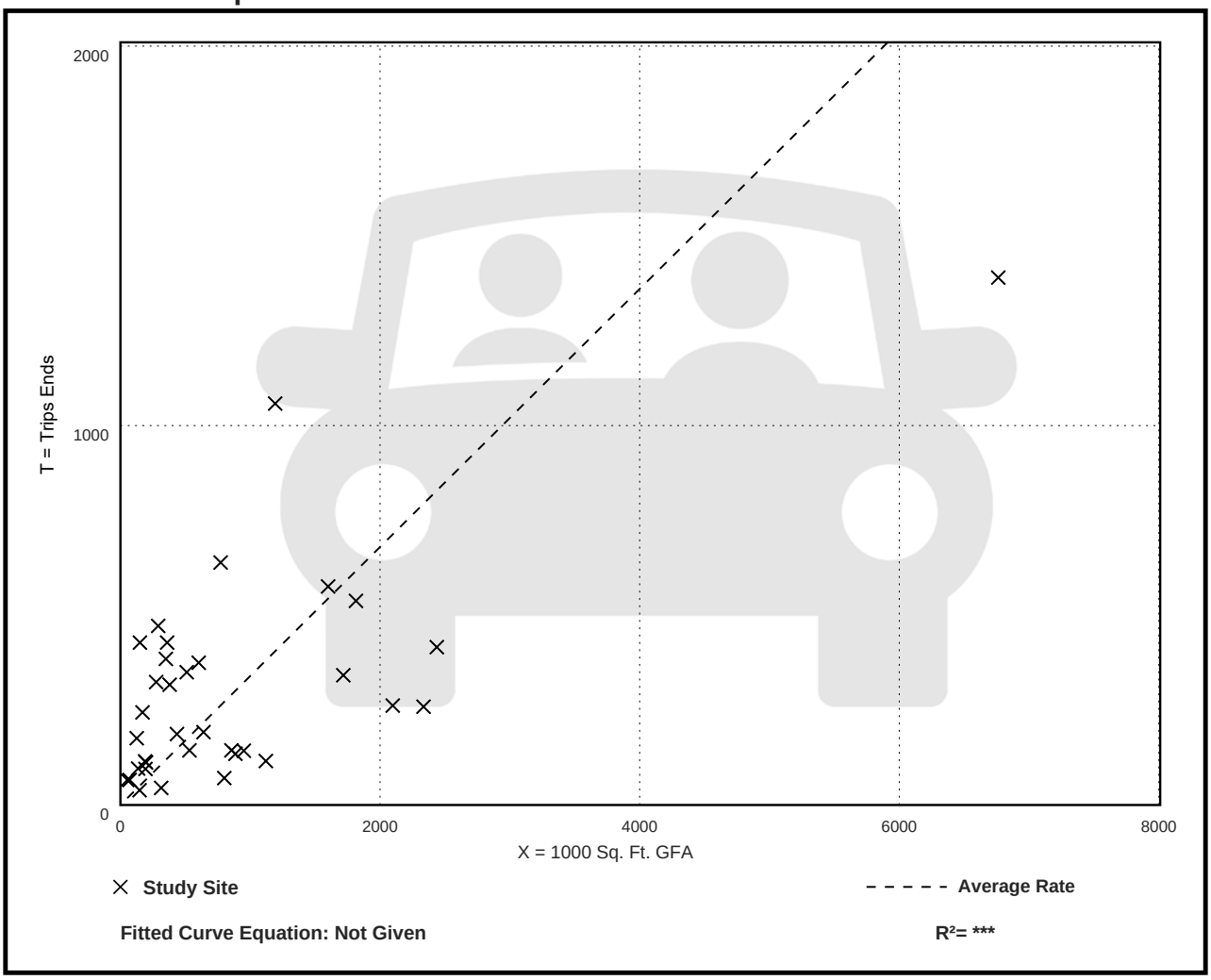
Industrial Park
(130)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 35
Avg. 1000 Sq. Ft. GFA: 899
Directional Distribution: 22% entering, 78% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.34	0.09 - 2.85	0.36

Data Plot and Equation



Industrial Park
(130)

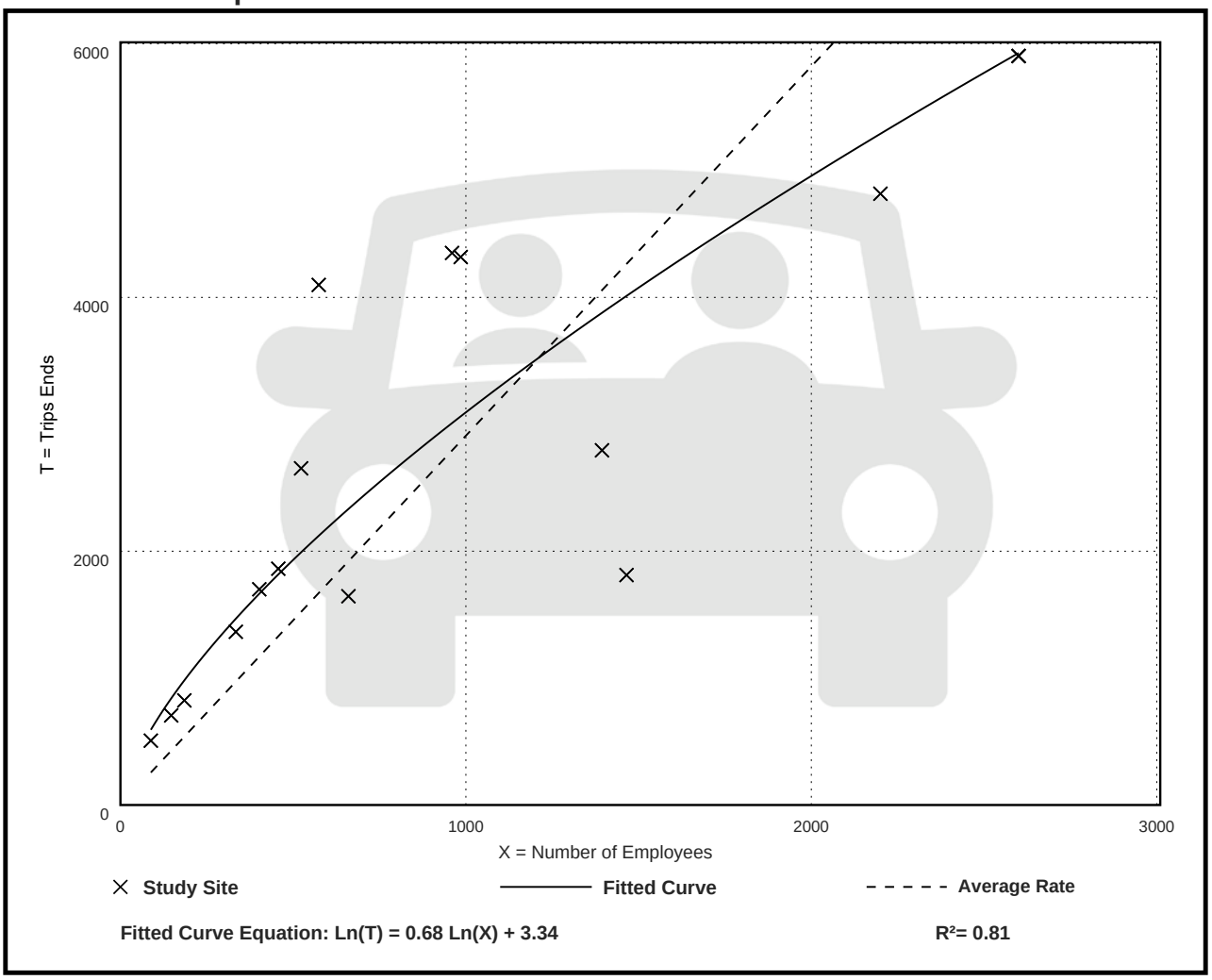
Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. Num. of Employees: 973
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
2.91	1.24 - 7.14	1.42

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.68 Ln(X) + 3.34

R^2= 0.81

Industrial Park
(130)

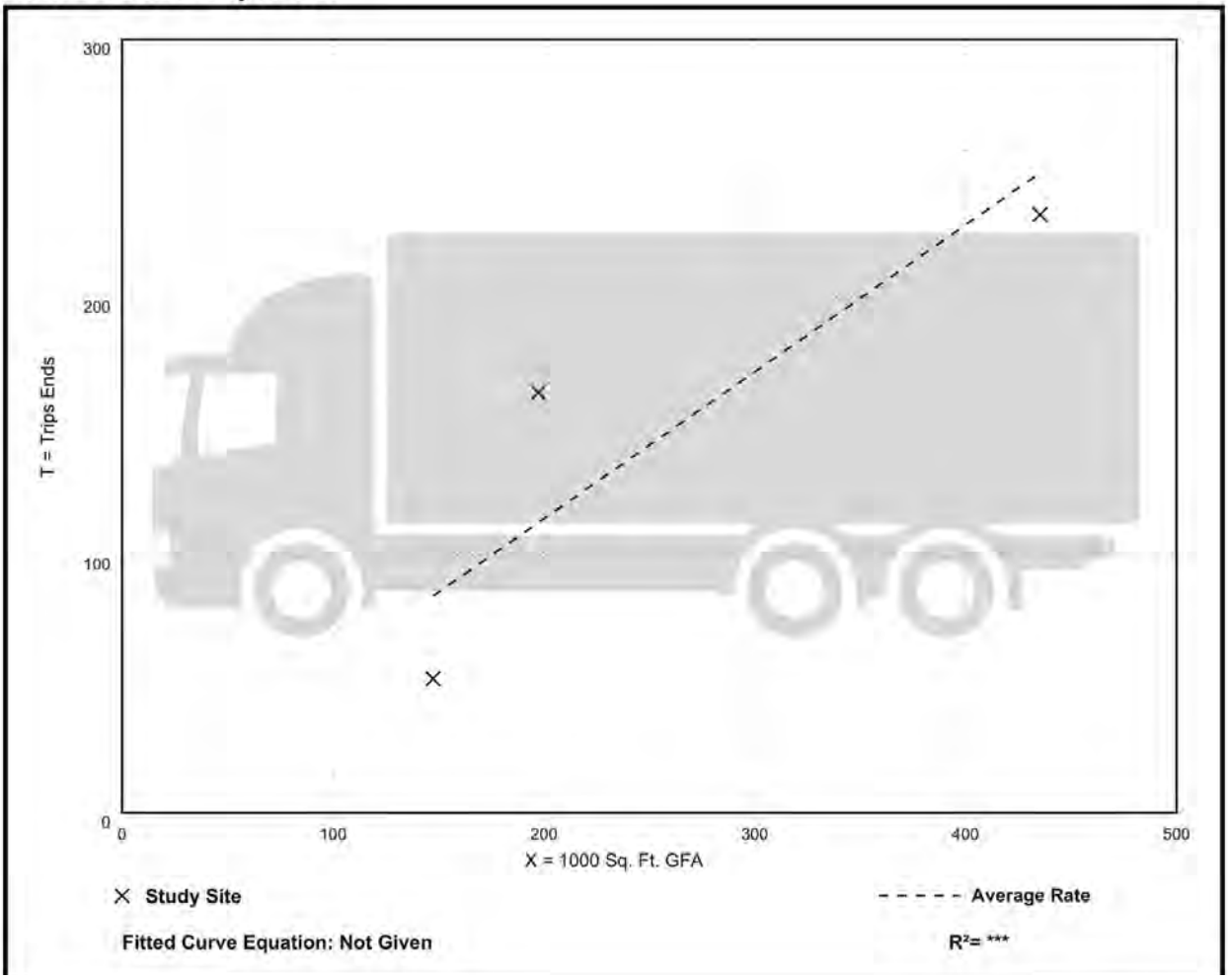
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 260
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.57	0.35 - 0.83	0.20

Data Plot and Equation



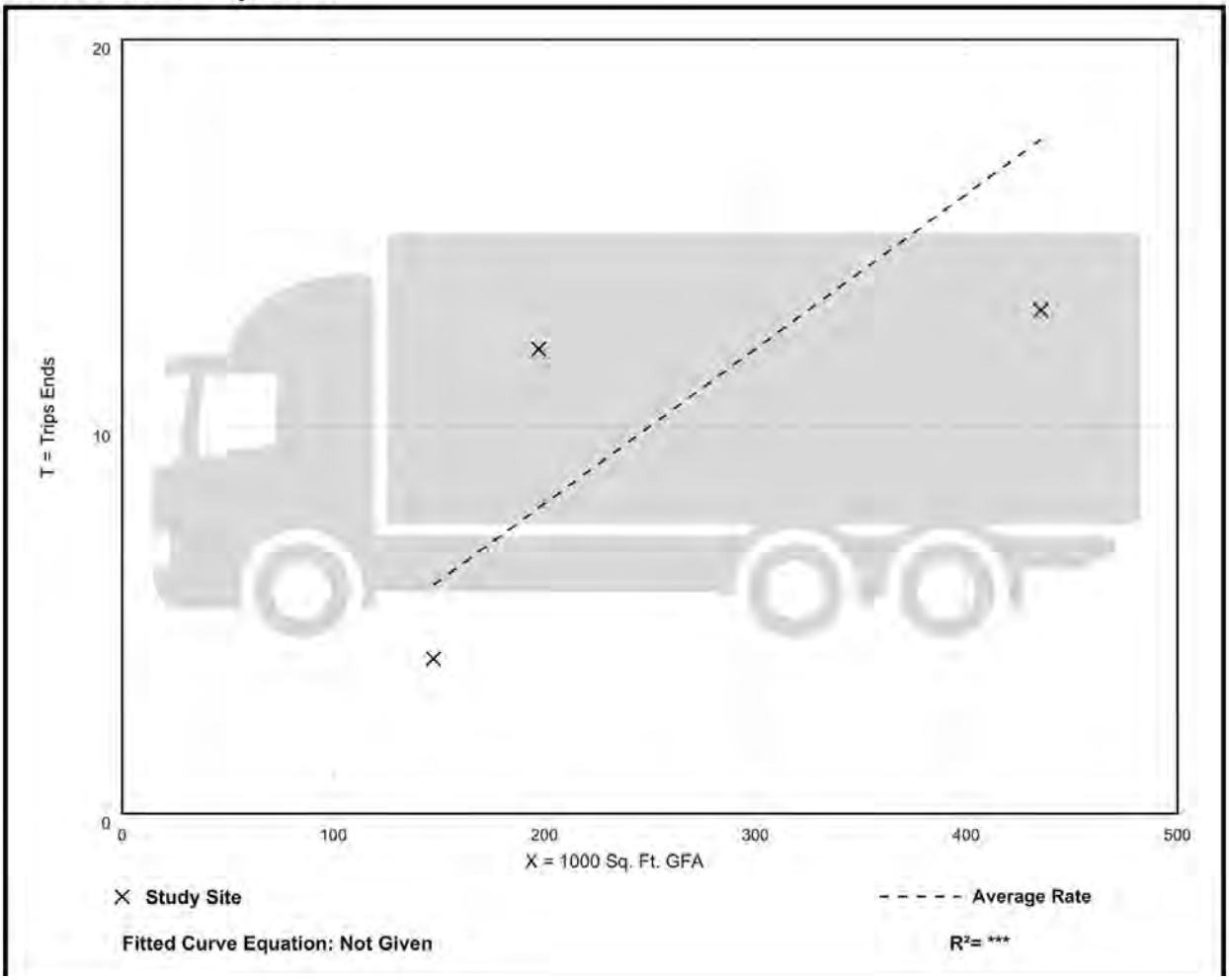
Industrial Park
(130)

Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 260
Directional Distribution: 45% entering, 55% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.04	0.03 - 0.06	0.02

Data Plot and Equation



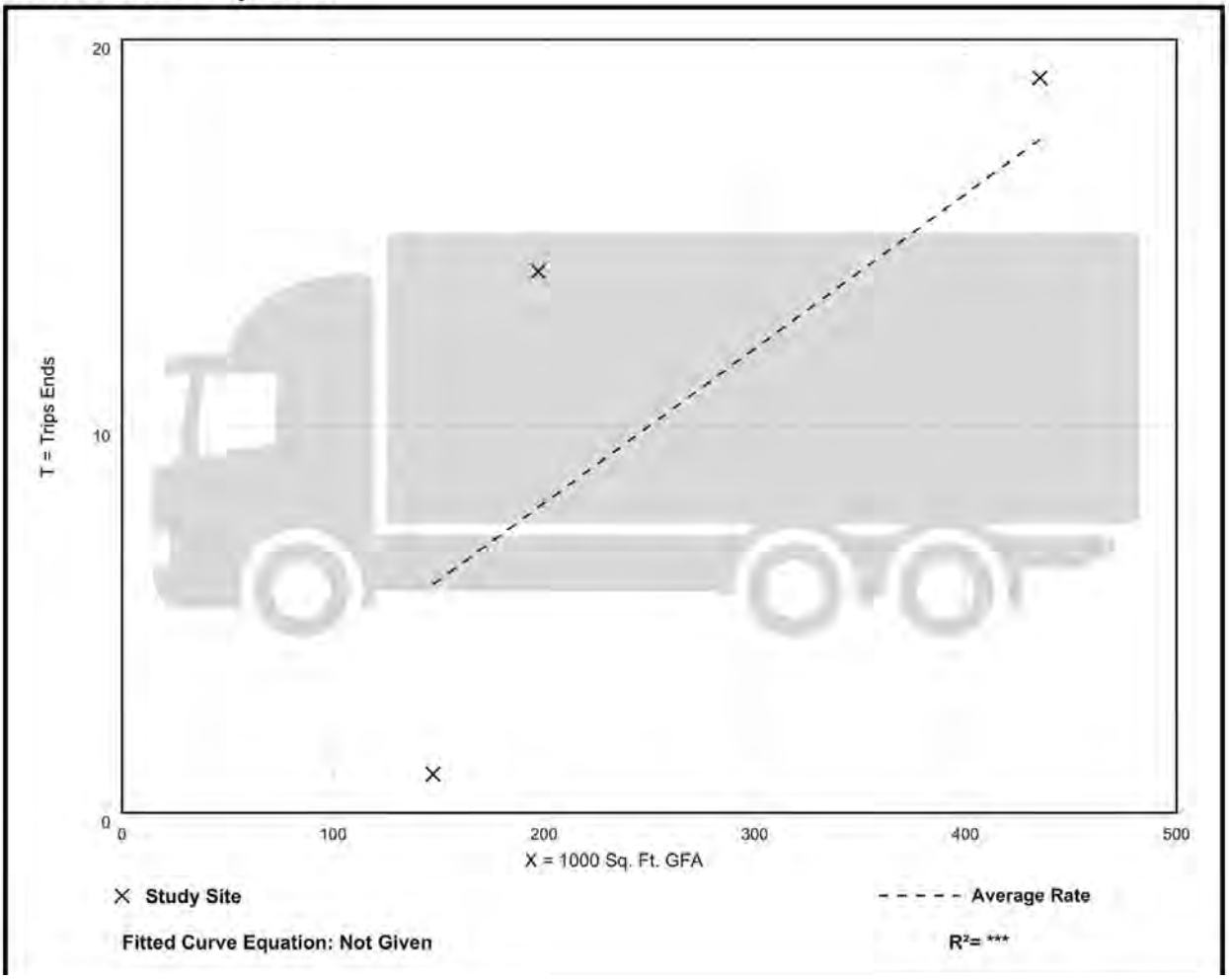
Industrial Park
(130)

Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 260
Directional Distribution: 38% entering, 62% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.04	0.01 - 0.07	0.03

Data Plot and Equation



Land Use: 151
Mini-Warehouse

Description

A mini-warehouse is a building in which a number of storage units or vaults are rented for the storage of goods. They are typically referred to as “self-storage” facilities. Each unit is physically separated from other units, and access is usually provided through an overhead door or other common access point.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Colorado, Massachusetts, Minnesota, Nevada, New Jersey, Texas, and Utah.

Source Numbers

212, 403, 551, 568, 642, 708, 724, 850, 868, 876, 1024, 1035

Mini-Warehouse
(151)

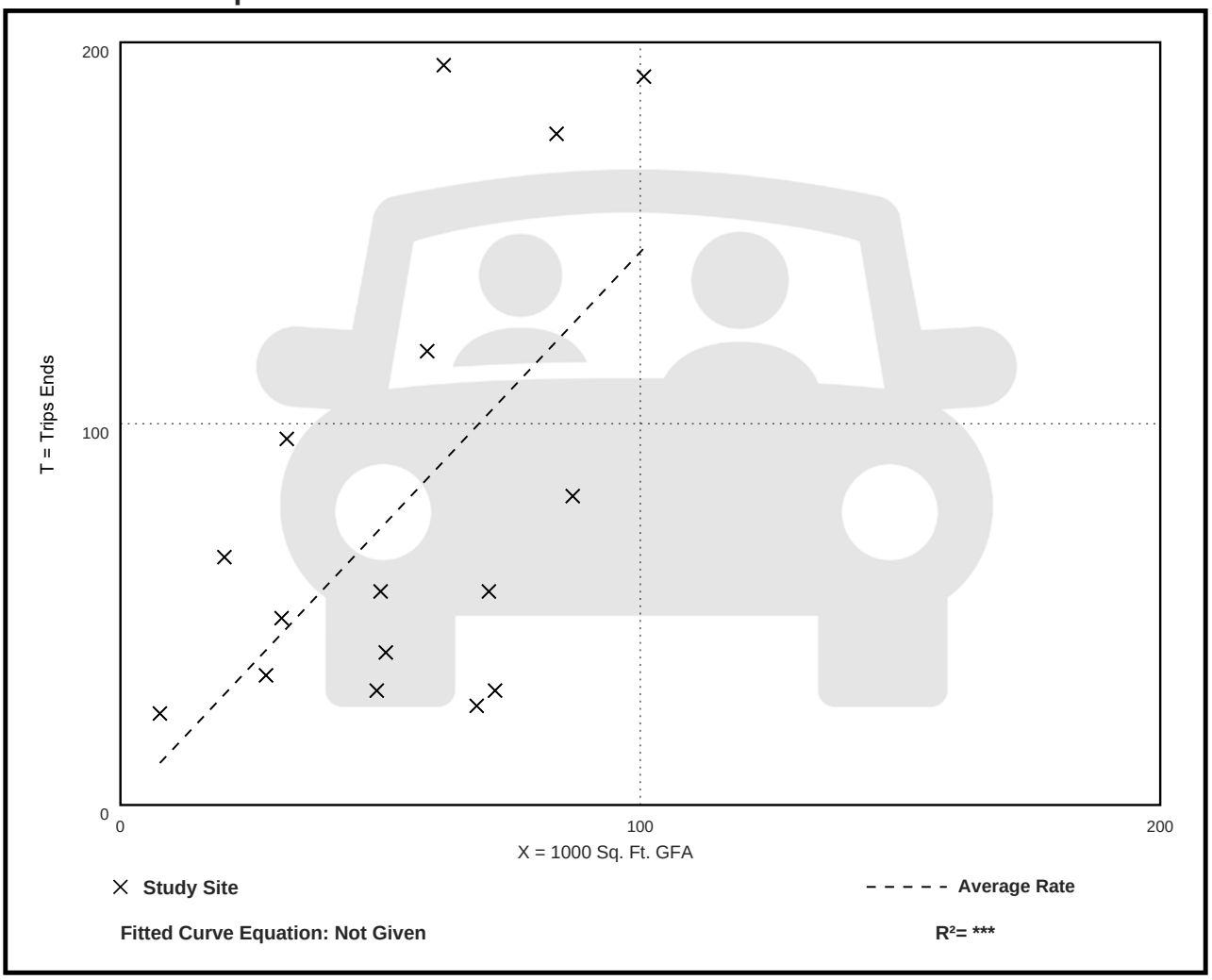
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GFA: 55
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.45	0.38 - 3.25	0.92

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= *

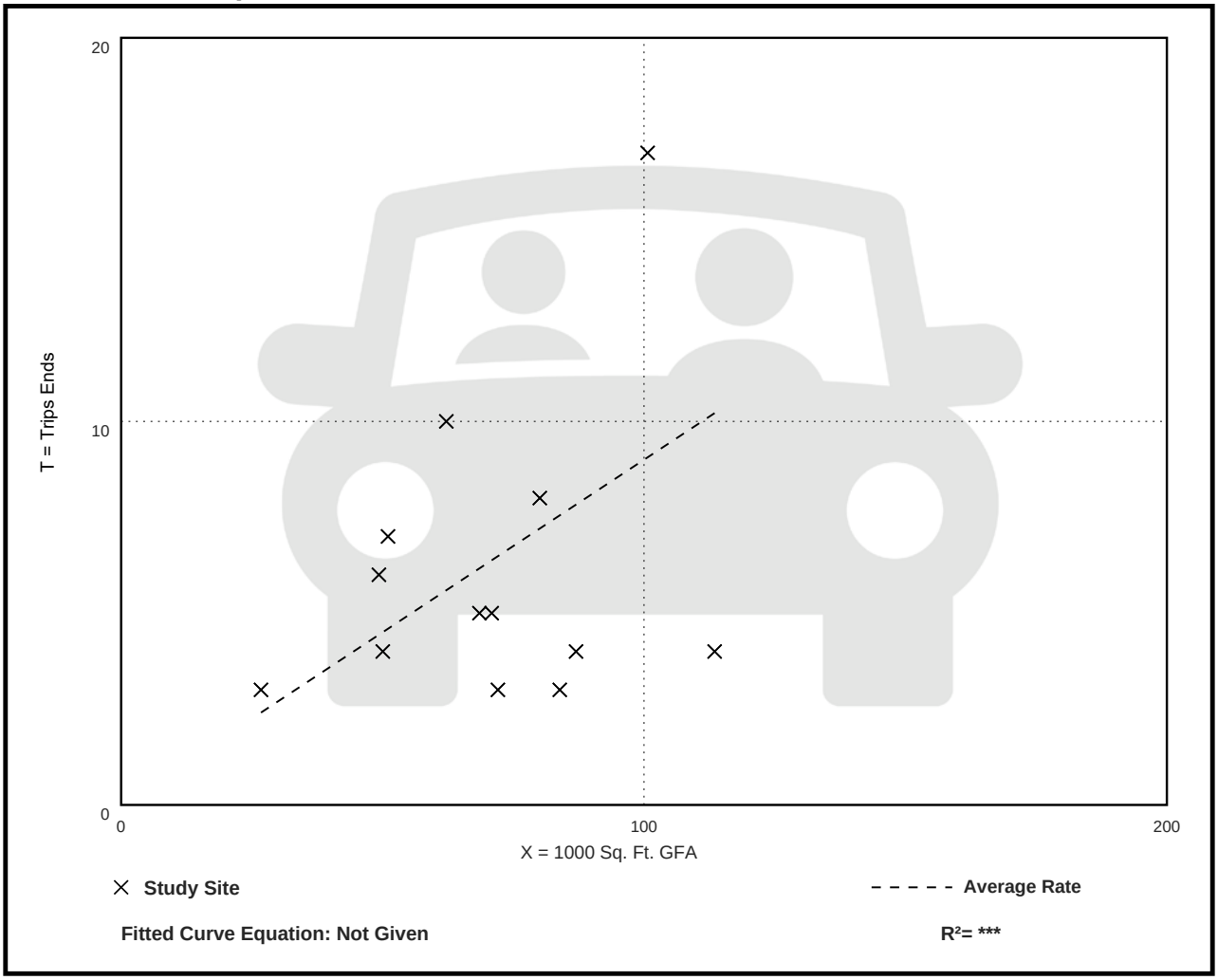
Mini-Warehouse
(151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. 1000 Sq. Ft. GFA: 70
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.09	0.04 - 0.17	0.05

Data Plot and Equation



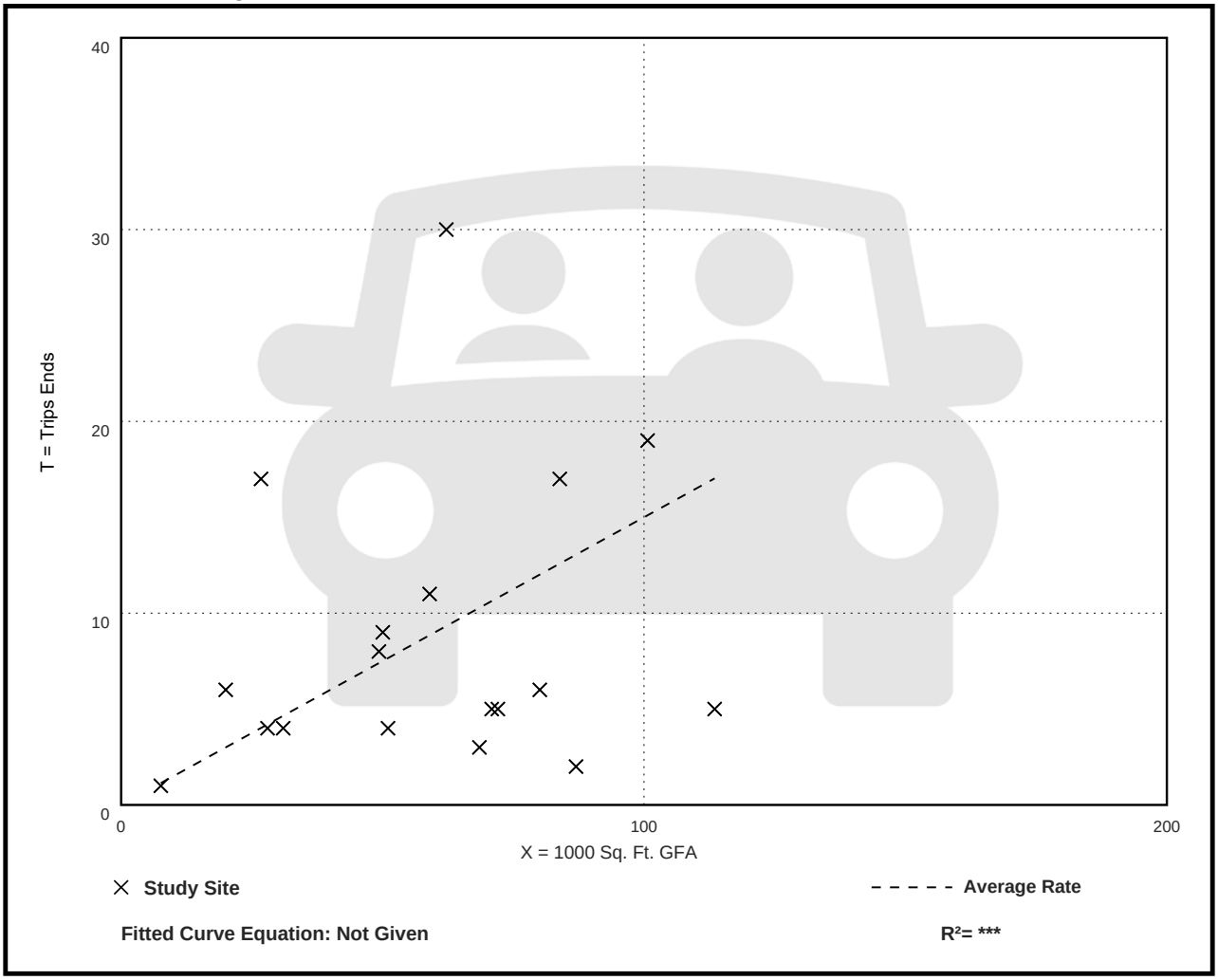
Mini-Warehouse
(151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 18
Avg. 1000 Sq. Ft. GFA: 59
Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.02 - 0.64	0.14

Data Plot and Equation



Mini-Warehouse
(151)

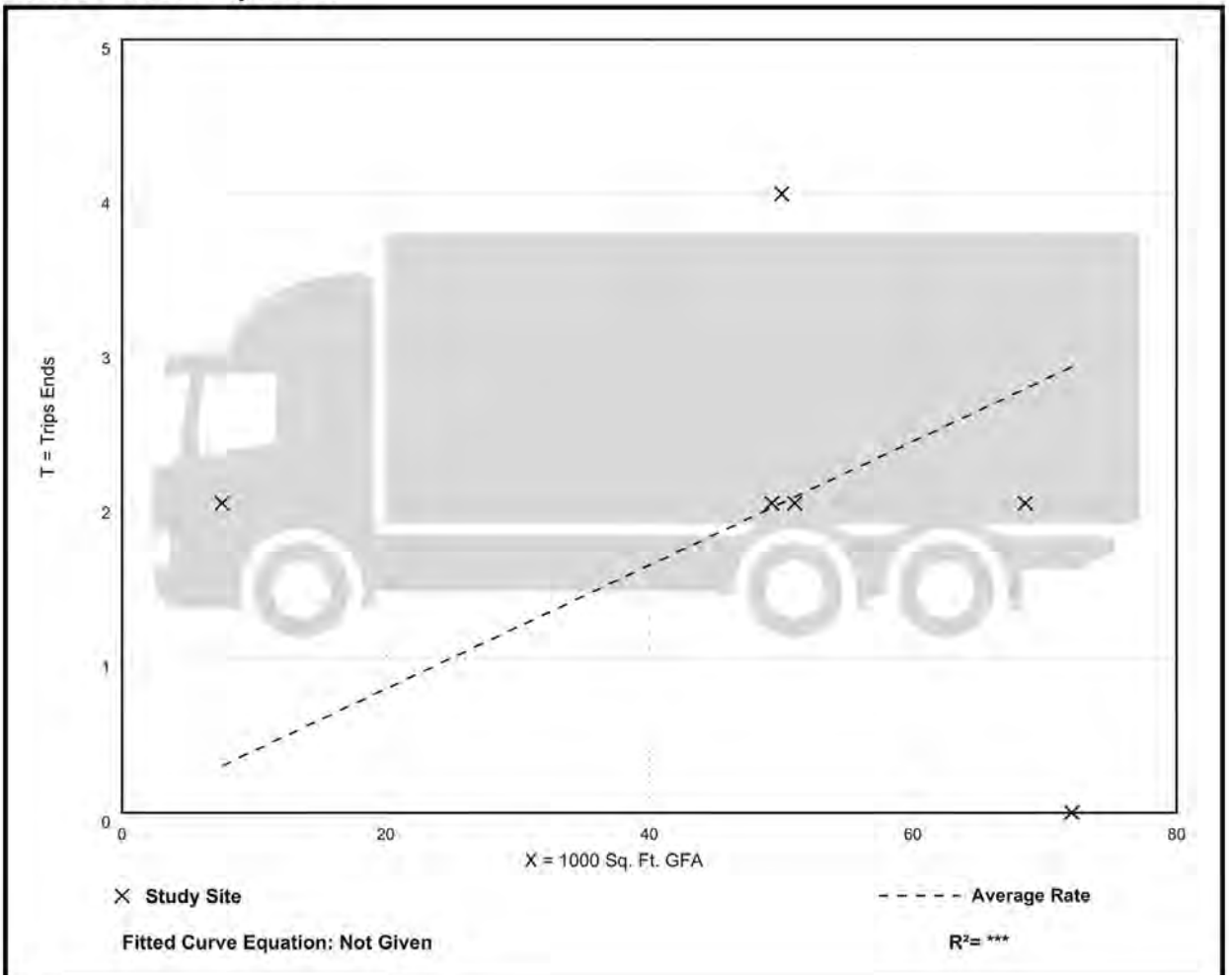
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 50
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.04	0.00 - 0.26	0.05

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Mini-Warehouse
(151)

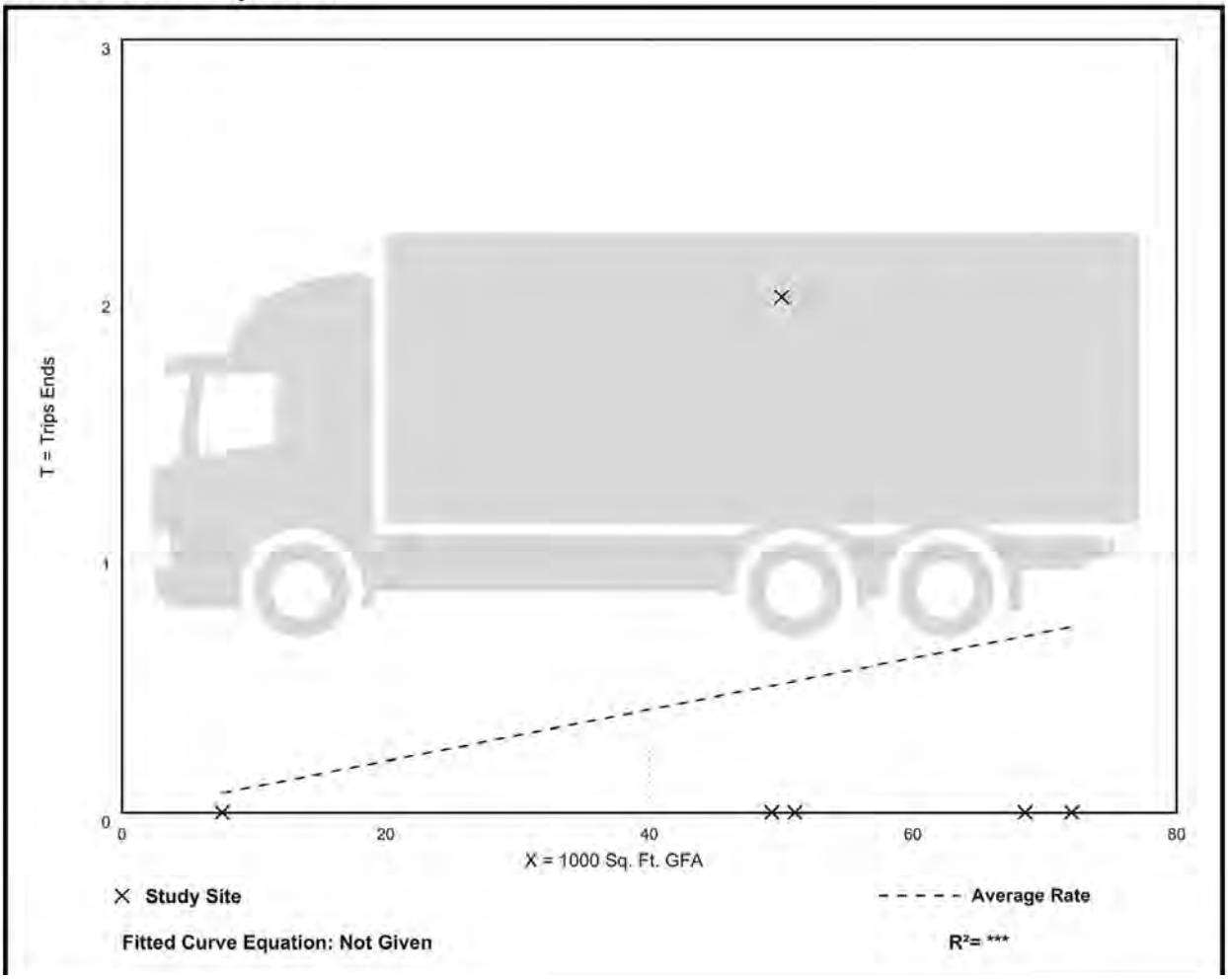
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 50
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.01	0.00 - 0.04	0.02

Data Plot and Equation



Mini-Warehouse
(151)

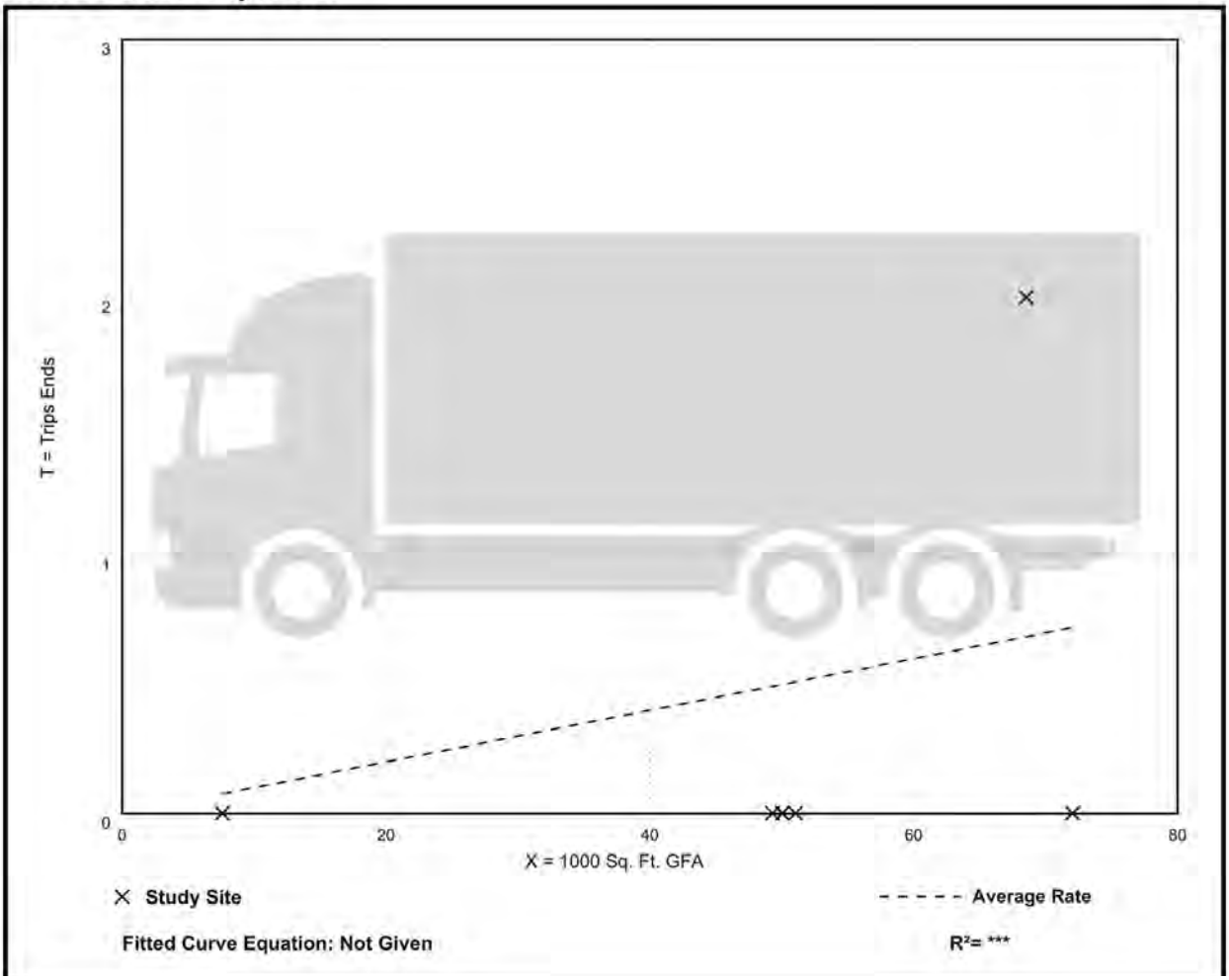
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 50
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.01	0.00 - 0.03	0.01

Data Plot and Equation



Land Use: 934
Fast-Food Restaurant with Drive-Through Window

Description

This land use includes any fast-food restaurant with a drive-through window. This type of restaurant is characterized by a large drive-through and large carry-out clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours a day) and high turnover rates for eat-in customers. The restaurant does not provide table service. A patron generally orders from a menu board and pays before receiving the meal. A typical duration of stay for an eat-in patron is less than 30 minutes. Fast casual restaurant (Land Use 930), high-turnover (sit-down) restaurant (Land Use 932), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

Users should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

If the restaurant has outdoor seating, its area is not included in the overall gross floor area. For a restaurant that has significant outdoor seating, the number of seats may be more reliable than GFA as an independent variable on which to establish a trip generation rate.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alaska, Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

163, 164, 168, 180, 181, 241, 245, 278, 294, 300, 301, 319, 338, 340, 342, 358, 389, 438, 502, 552, 577, 583, 584, 617, 640, 641, 704, 715, 728, 810, 866, 867, 869, 885, 886, 927, 935, 962, 977, 1050, 1053, 1054

Fast-Food Restaurant with Drive-Through Window (934)

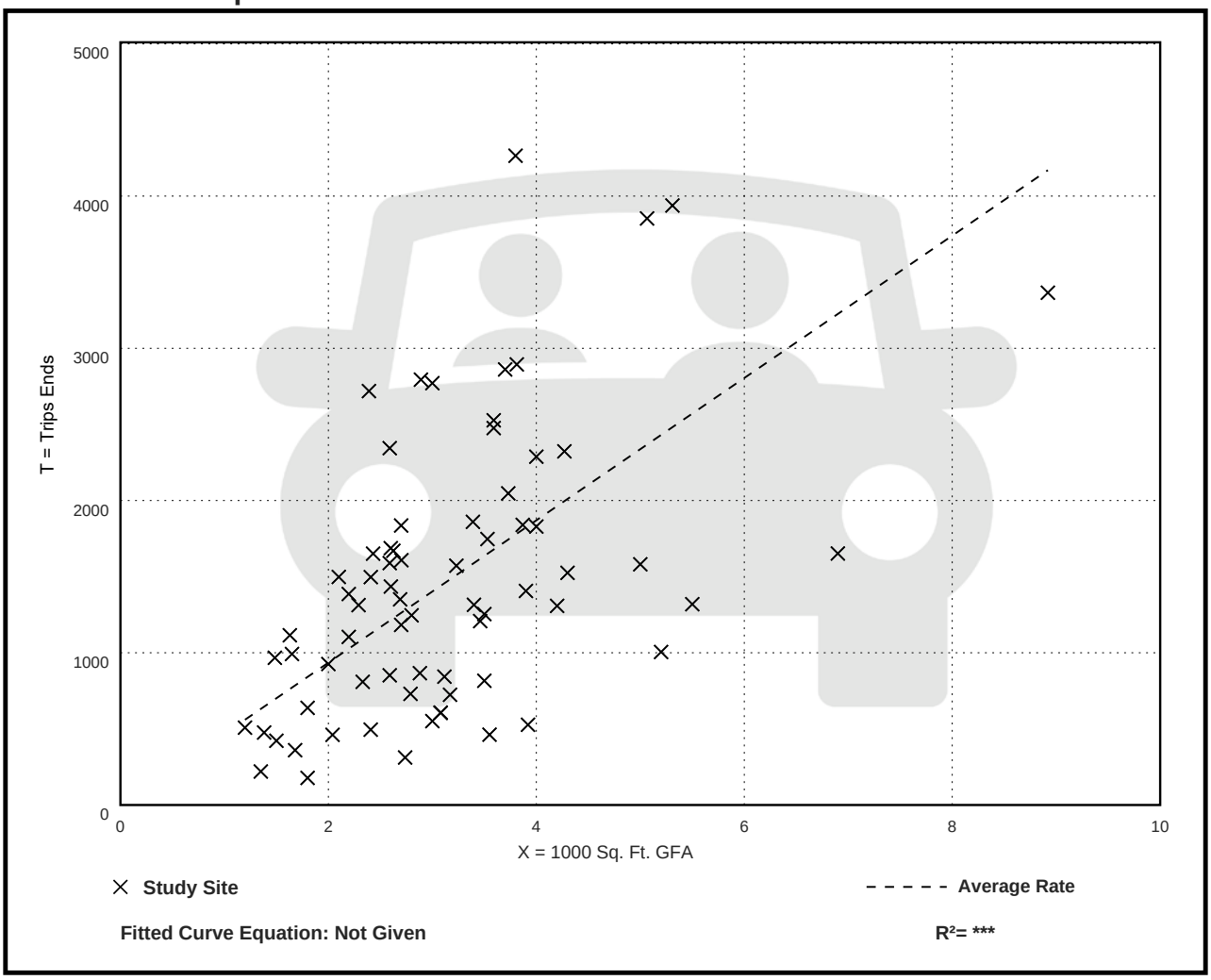
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 71
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
467.48	98.89 - 1137.66	238.62

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 96
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
44.61	1.05 - 164.25	27.14

Data Plot and Equation

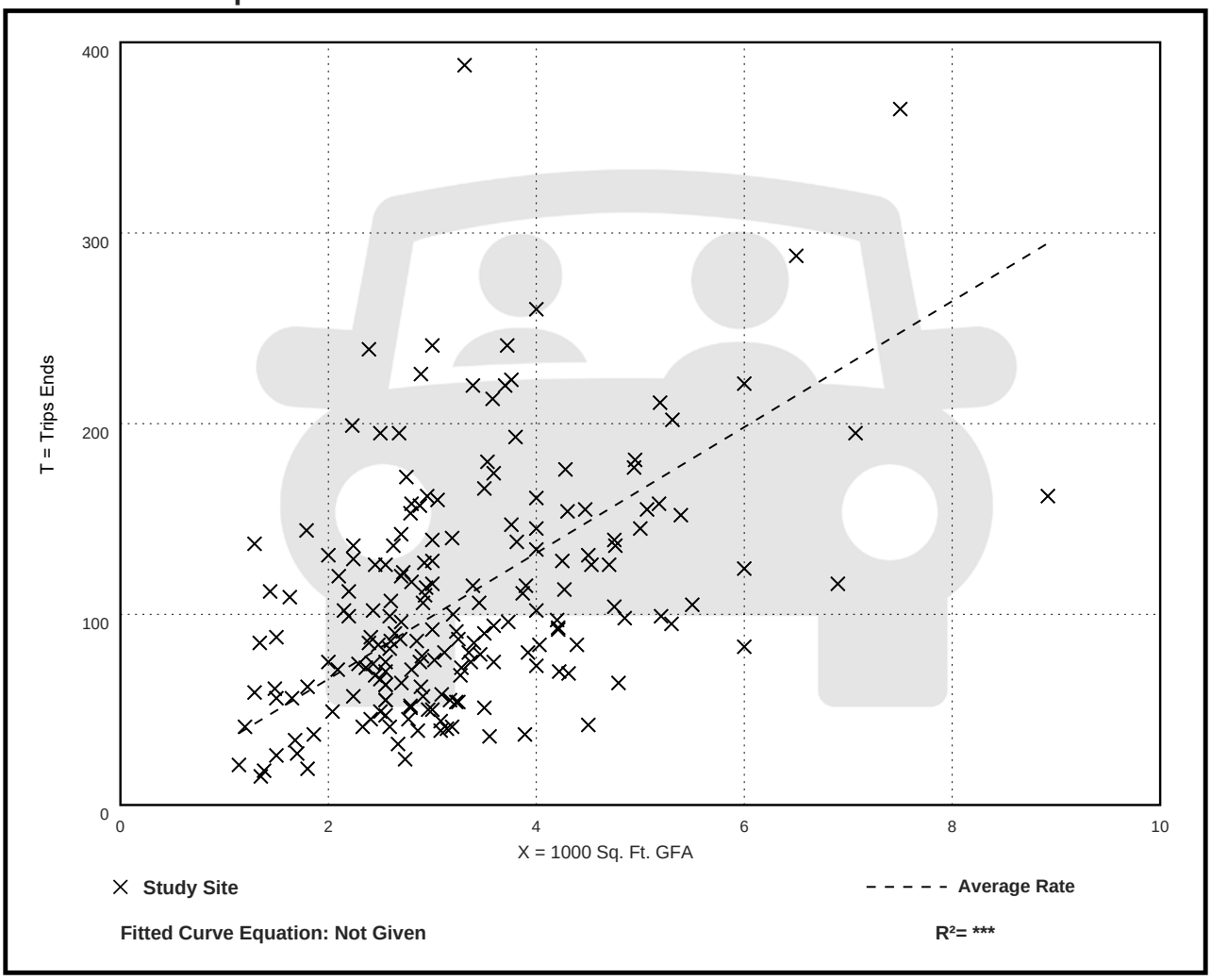
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 190
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.03	8.77 - 117.22	17.59

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

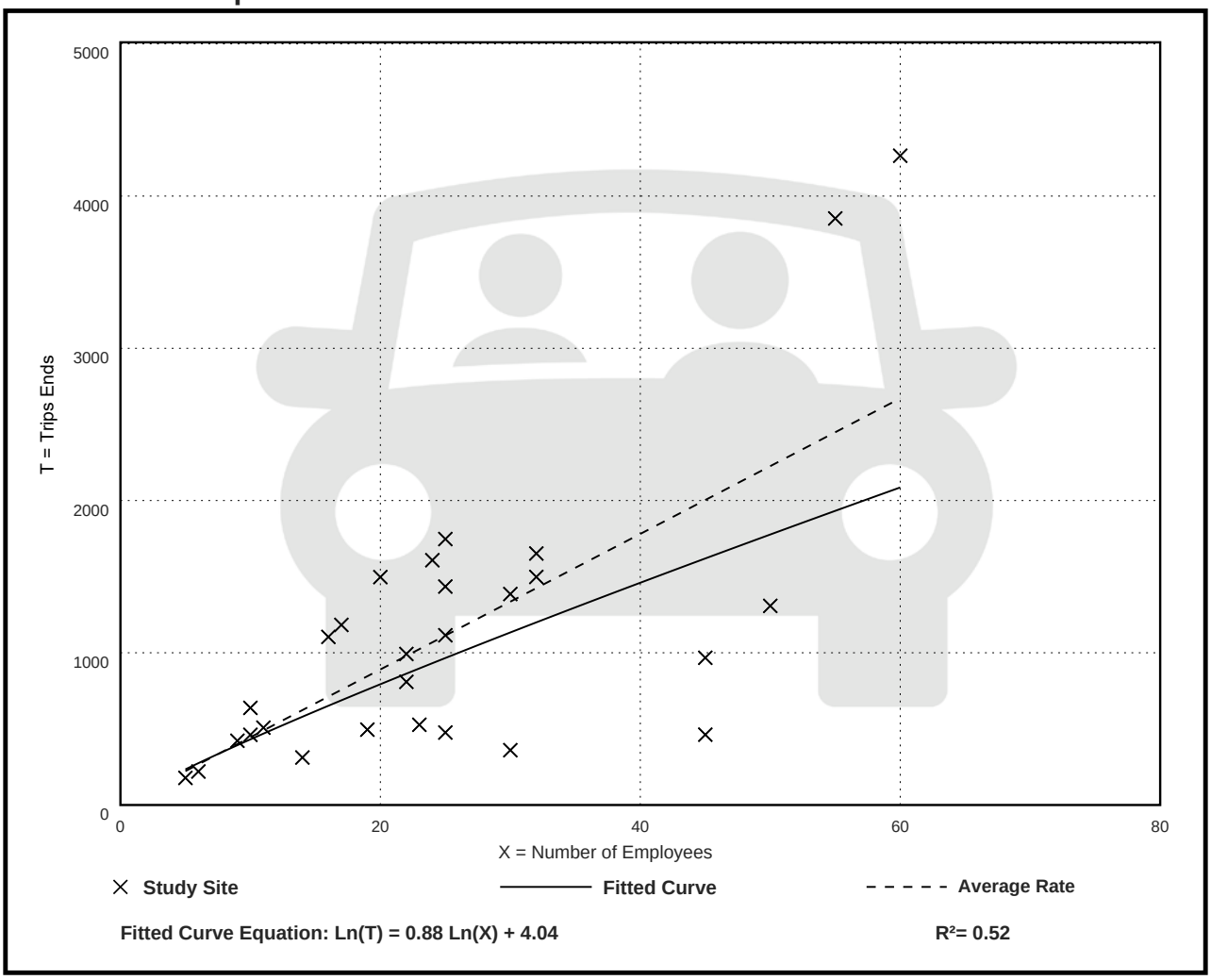
Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 28
Avg. Num. of Employees: 25
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
44.52	10.27 - 74.85	21.75

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.88 Ln(X) + 4.04

R^2= 0.52

Land Use: 945
Convenience Store/Gas Station

Description

A convenience store/gas station is a facility with a co-located convenience store and gas station. The convenience store sells grocery and other everyday items that a person may need or want as a matter of convenience. The gas station sells automotive fuels such as gasoline and diesel.

A convenience store/gas station is typically located along a major thoroughfare to optimize motorist convenience. Extended hours of operation (with many open 24 hours, 7 days a week) are common at these facilities.

The convenience store product mix typically includes pre-packaged grocery items, beverages, dairy products, snack foods, confectionary, tobacco products, over-the-counter drugs, and toiletries. A convenience store may sell alcohol, often limited to beer and wine. Coffee and pre-made sandwiches are also commonly sold at a convenience store. Made-to-order food orders are sometimes offered. Some stores offer limited seating.

The sites in this land use include both self-pump and attendant-pumped fueling positions and both pre-pay and post-pay operations.

Convenience store (Land Use 851), gasoline/service station (Land Use 944), and truck stop (Land Use 950) are related uses.

Land Use Subcategory

Multiple subcategories were added to this land use to allow for multi-variable evaluation of sites with single-variable data plots. All study sites are assigned to one of three subcategories, based on the number of vehicle fueling positions (VFP) at the site: between 2 and 8 VFP, between 9 and 15 VFP, and between 16 and 24 VFP. For each VFP range subcategory, data plots are presented with GFA as the independent variable for all time periods and trip types for which data are available. The use of both GFA and VFP (as the independent variable and land use subcategory, respectively) provides a significant improvement in the reliability of a trip generation estimate when compared to the single-variable data plots in prior editions of *Trip Generation Manual*.

Further, the study sites were also assigned to one of three other subcategories, based on the gross floor area (GFA) of the convenience store at the site: between 2,000 and 4,000 square feet, between 4,000 and 5,500 square feet, and between 5,500 and 10,000 square feet. For each GFA subcategory range, data plots are presented with VFP as the independent variable for all time periods and trip types for which data are available. The use of both VFP and GFA (as the independent variable and land use subcategory, respectively) provides a significant improvement in the reliability of a trip generation estimate when compared to the single-variable data plots in prior editions of *Trip Generation Manual*.

When analyzing the convenience store/gas station land use with each combination of GFA and VFP values as described above, the two sets of data plots will produce two estimates of site-generated trips. Both values can be considered when determining a site trip generation estimate.

Data plots are also provided for three additional independent variables: AM peak hour traffic on adjacent street, PM peak hour traffic on adjacent street, and employees. These independent variables are intended to be analyzed as single independent variables and do not have sub-categories associated with them. Within the data plots and within the ITETripGen web app, these plots are found under the land use subcategory "none."

Additional Data

ITE recognizes there are existing convenience store/gas station sites throughout North America that are larger than the sites presented in the data plots. However, the ITE database does not include any site with more than 24 VFP or any site with gross floor area greater than 10,000 square feet. Submission of trip generation data for larger sites is encouraged.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), Arkansas, California, Connecticut, Delaware, Florida, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Vermont, Washington, and Wisconsin.

Source Numbers

221, 245, 274, 288, 300, 340, 350, 351, 352, 355, 359, 385, 440, 617, 718, 810, 813, 844, 850, 853, 864, 865, 867, 869, 882, 883, 888, 904, 926, 927, 936, 938, 954, 960, 962, 977, 1004, 1024, 1025, 1027, 1052

Convenience Store/Gas Station - VFP (9-15) (945)

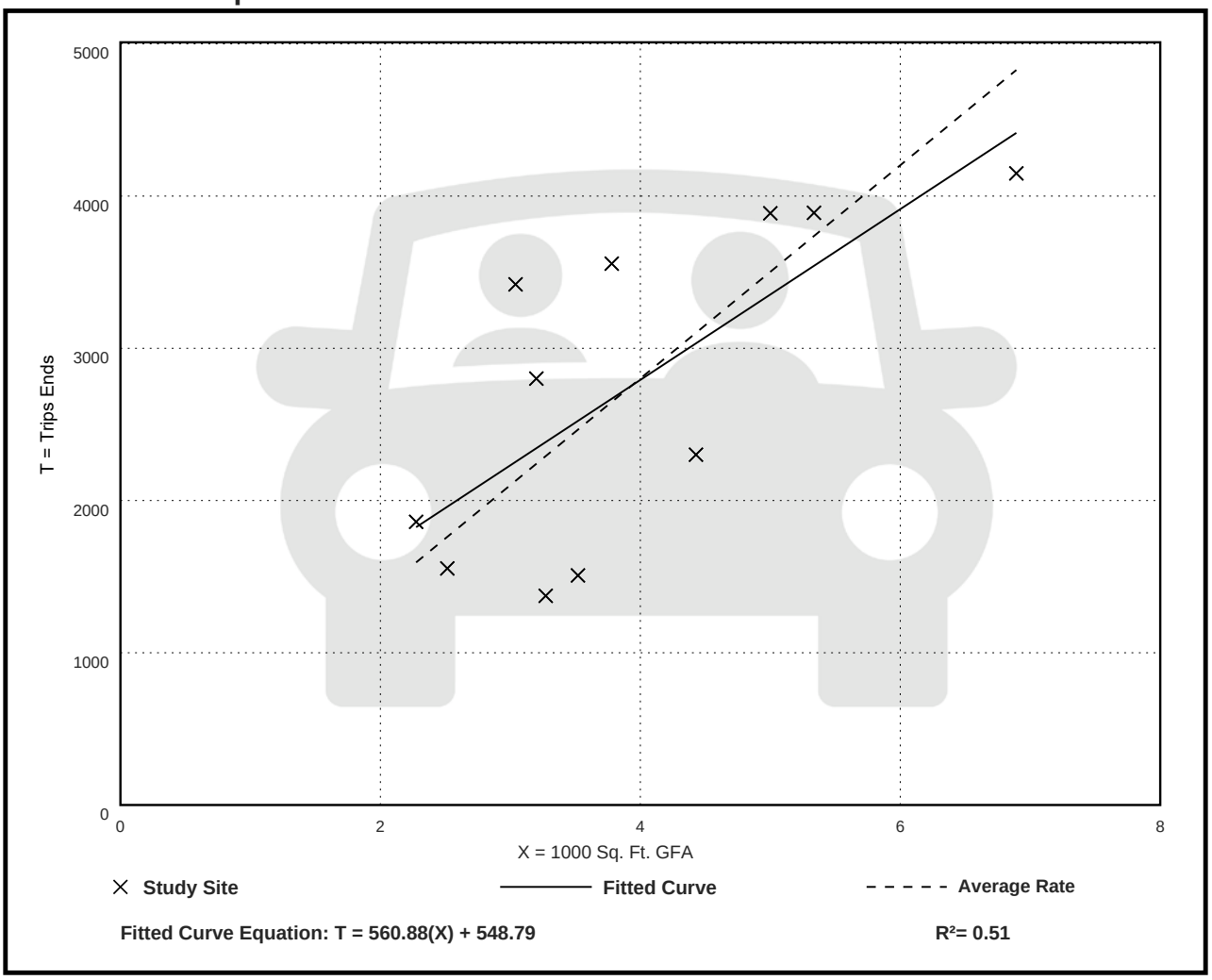
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
700.43	419.93 - 1125.00	206.44

Data Plot and Equation



Fitted Curve Equation: T = 560.88(X) + 548.79

R^2= 0.51

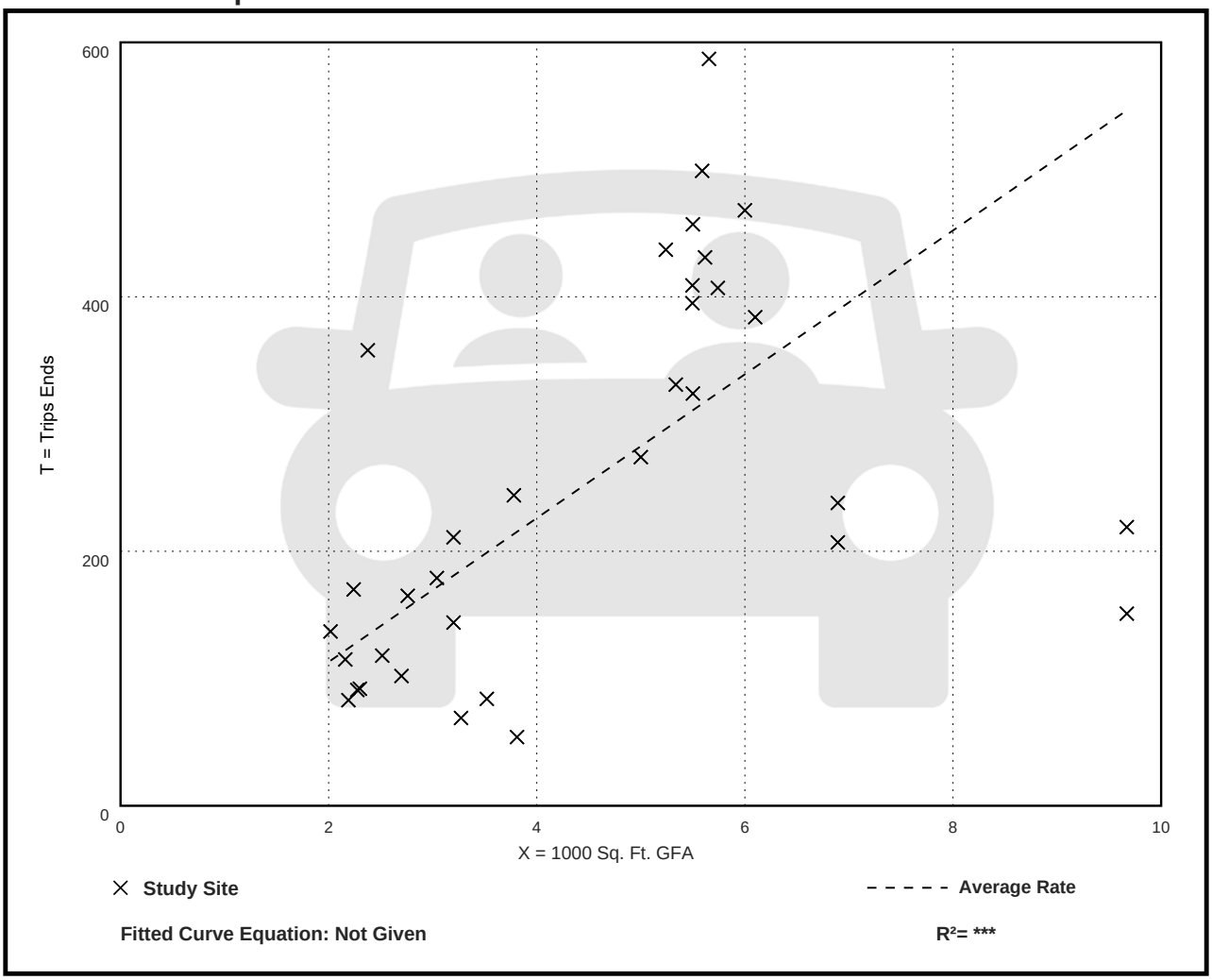
Convenience Store/Gas Station - VFP (9-15) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
56.52	14.17 - 150.67	27.56

Data Plot and Equation



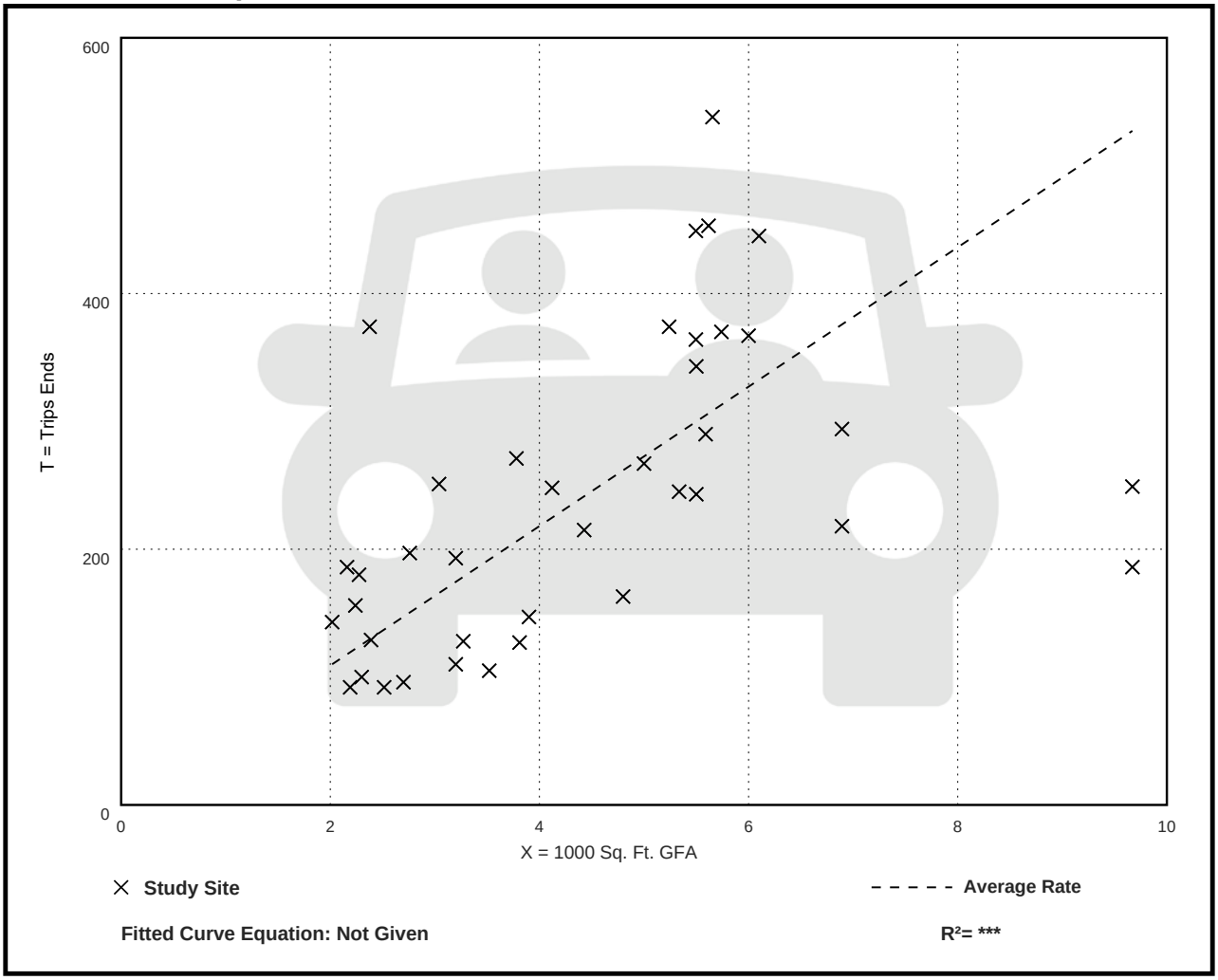
Convenience Store/Gas Station - VFP (9-15) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
54.52	19.23 - 157.41	23.69

Data Plot and Equation



Convenience Store/Gas Station - VFP (9-15) (945)

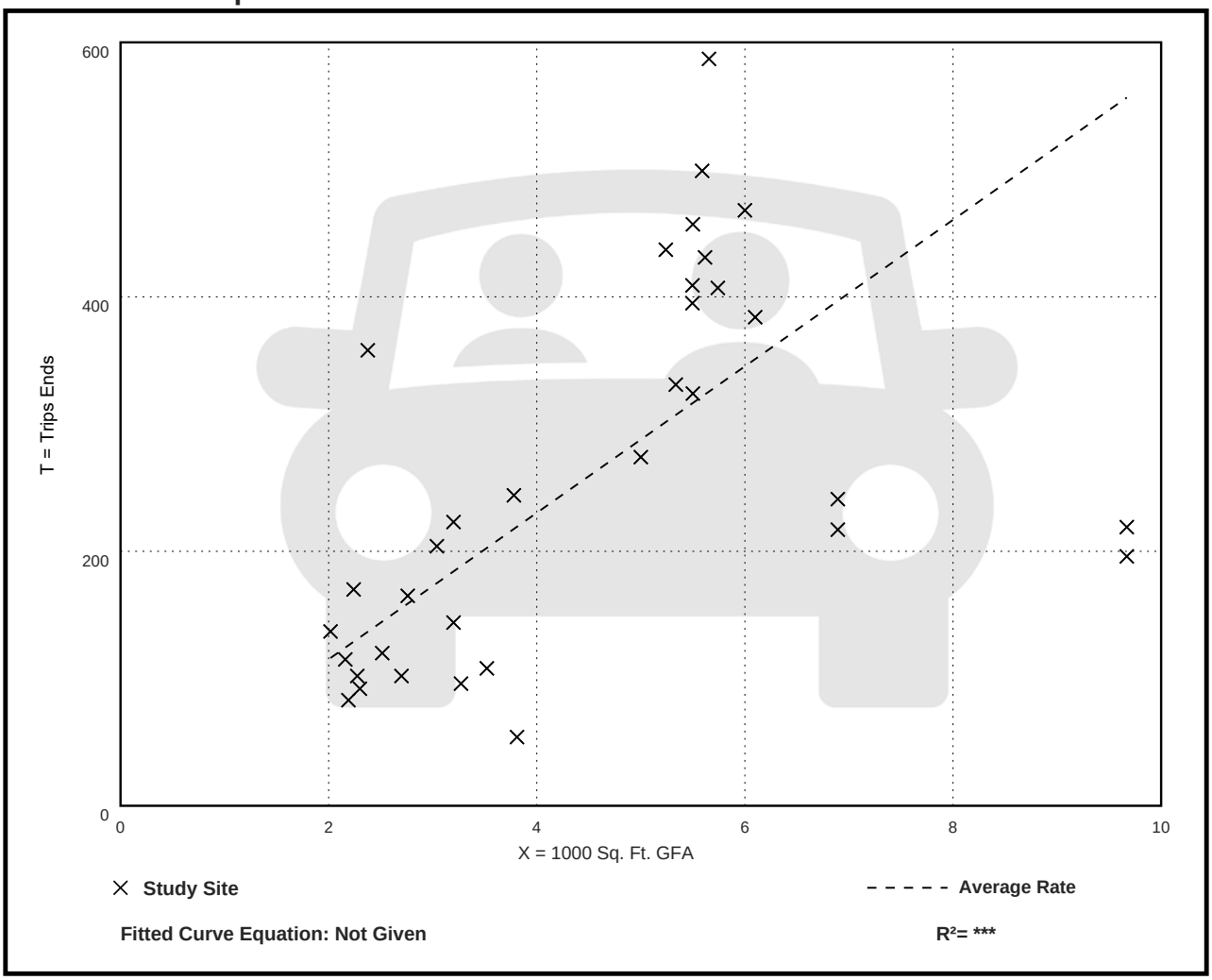
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
57.56	14.17 - 150.67	26.67

Data Plot and Equation



Convenience Store/Gas Station - VFP (9-15) (945)

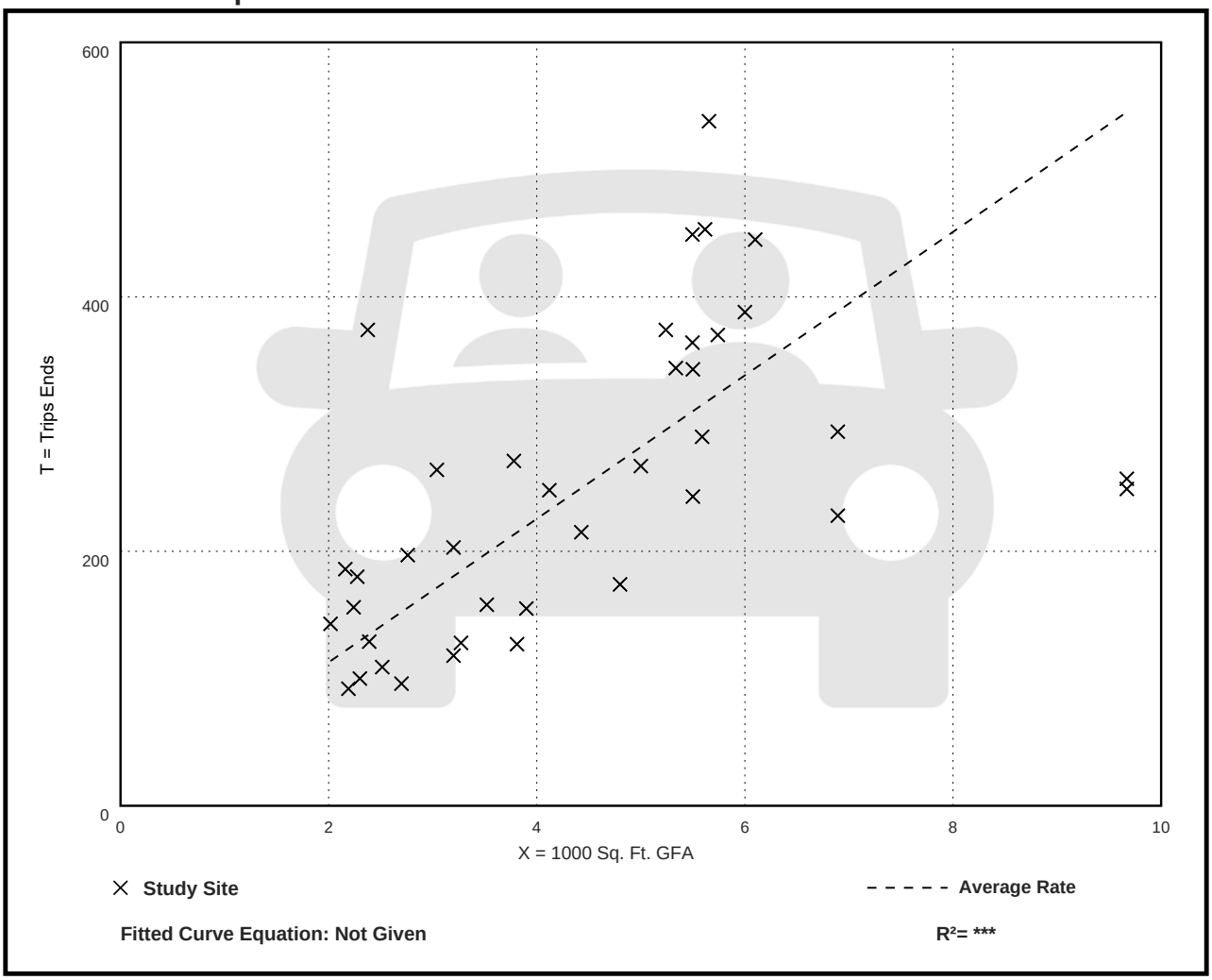
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
56.38	25.75 - 157.41	22.74

Data Plot and Equation



Land Use: 947
Self-Service Car Wash

Description

A self-service car wash allows manual cleaning of vehicles by providing stalls for a motorist to park and wash a vehicle. Automated car wash (Land Use 948) and car wash and detail center (Land Use 949) are related uses.

Additional Data

The sites were surveyed in the 1980s, the 1990s, and the 2000s in Colorado, New Jersey, and South Dakota.

Source Numbers

171, 178, 358, 359, 550, 955

Self-Service Car Wash
(947)

Vehicle Trip Ends vs: Wash Stalls
On a: Weekday

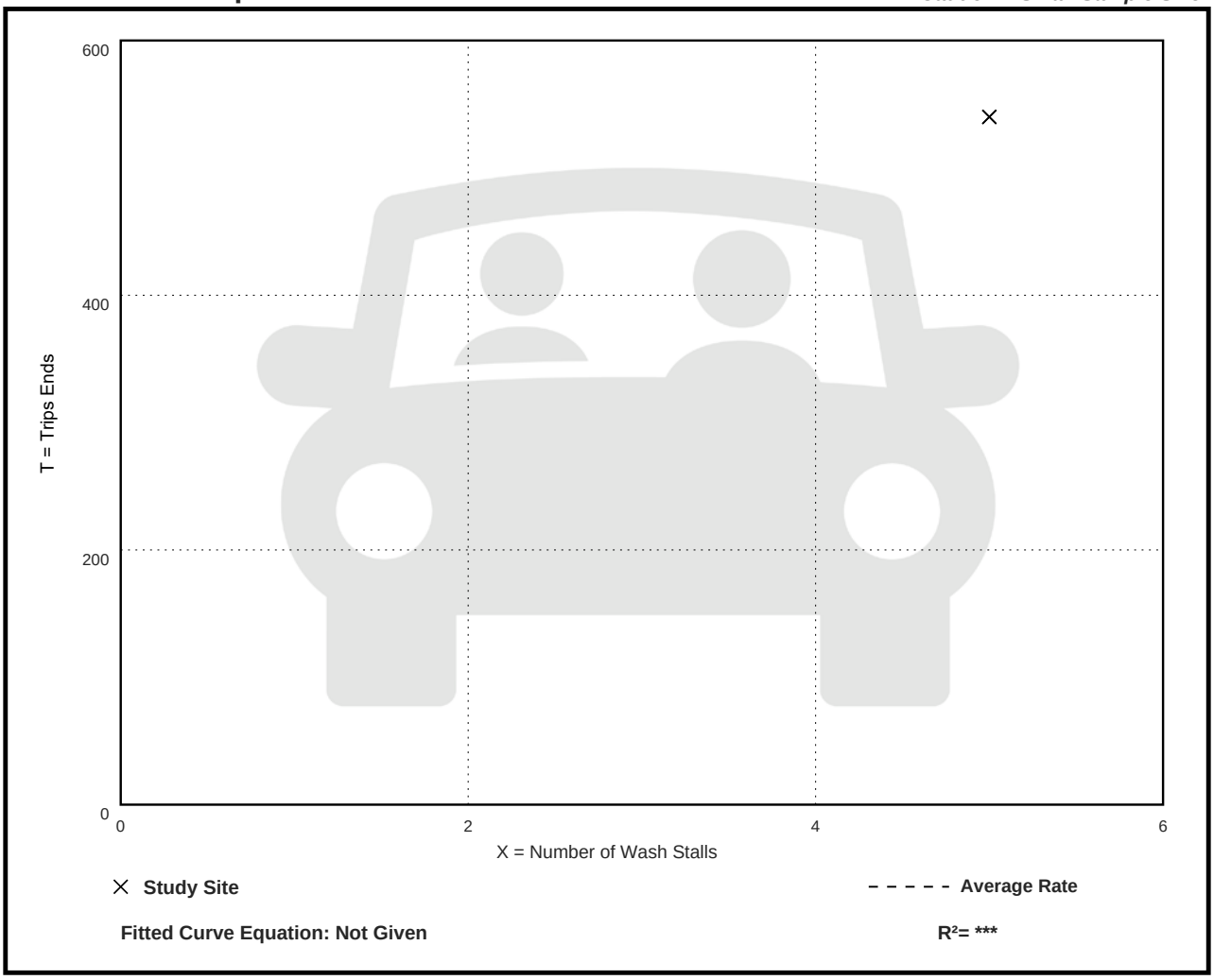
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Wash Stalls: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
108.00	108.00 - 108.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

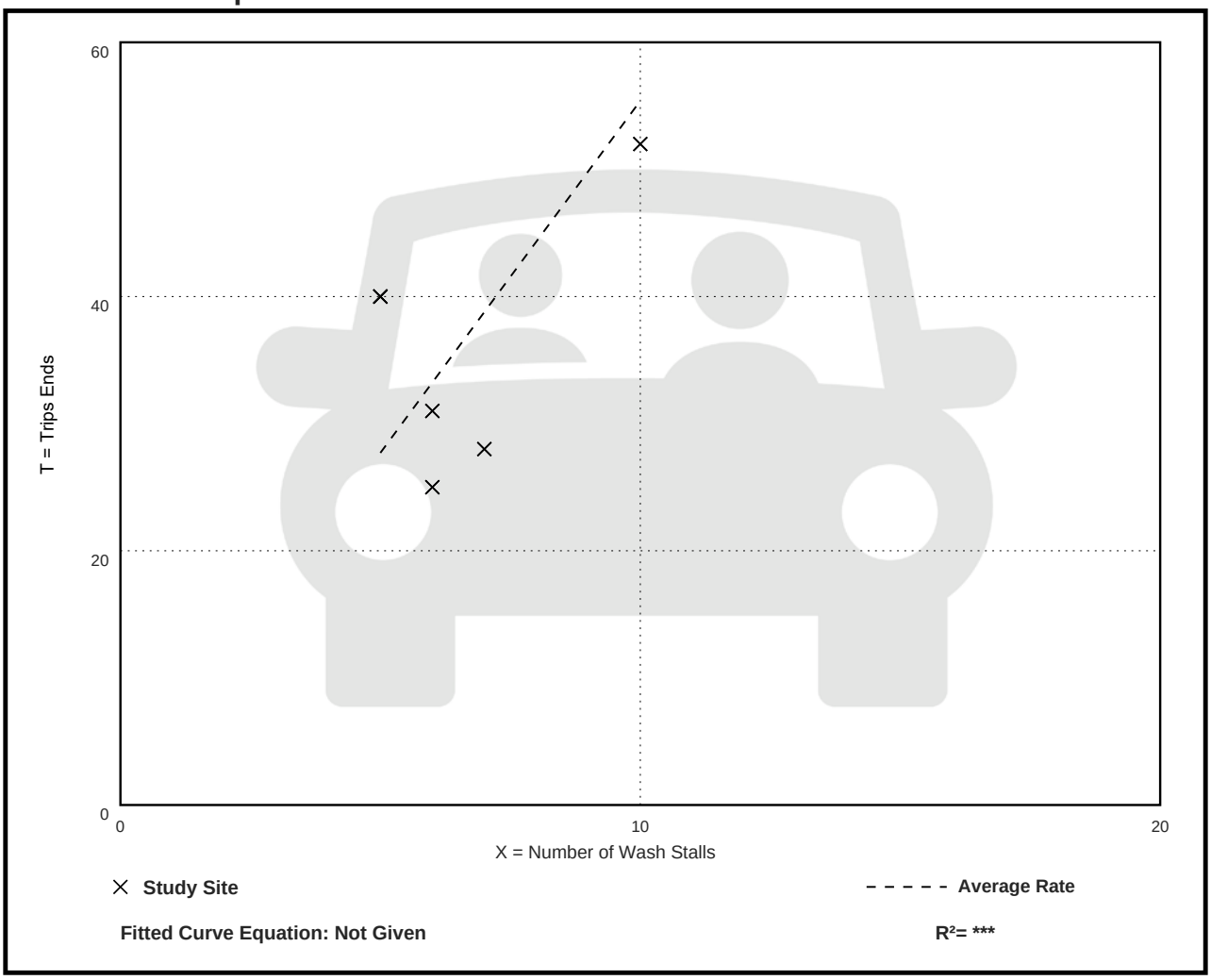
Self-Service Car Wash
(947)

Vehicle Trip Ends vs: Wash Stalls
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. Num. of Wash Stalls: 7
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
5.54	4.00 - 8.00	1.67

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	934
Land Use	Fast-Food Restaurant with Drive-Through Window
Setting	General Urban/Suburban
Time Period	Weekday AM Peak Period
# Data Sites	5
Average Pass-By Rate	50%

Pass-By Characteristics for Individual Sites

GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
1.4	Kentucky	1993	—	62	22	16	38	1407	2
3	Kentucky	1993	—	43	14	43	57	2903	2
3.3	--	1996	—	68	—	—	32	—	21
3.6	Kentucky	1993	—	32	47	21	68	437	2
4.2	Indiana	1993	—	46	23	31	54	1049	2

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	934
Land Use	Fast-Food Restaurant with Drive-Through Window
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	11
Average Pass-By Rate	55%

Pass-By Characteristics for Individual Sites

GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
1.3	Kentucky	1993	—	68	22	10	32	2055	2
1.9	Kentucky	1993	33	67	24	9	33	2447	2
2.8	Florida	1995	47	66	—	—	34	—	30
2.9	Florida	1996	271	41	41	18	59	—	30
3	Kentucky	1993	—	31	31	38	69	4250	2
3.1	Florida	1995	28	71	—	—	29	—	30
3.1	Florida	1996	29	38	—	—	62	—	30
3.2	Florida	1996	202	40	39	21	60	—	30
3.3	—	1996	—	62	—	—	38	—	21
4.2	Indiana	1993	—	56	25	19	44	1632	2
4.3	Florida	1994	304	62	—	—	38	—	30

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday AM Peak Period									
# Data Sites	16 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	60% for Sites with between 2 and 8 VFP					76% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
			Survey		Pass-By	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP	State or Province	Year	# Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2	8	Maryland	1992	46	87	13	0	13	2235	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.2	8	Maryland	1992	31	47	34	19	53	1785	25
2.2	< 8	Indiana	1993	79	56	6	38	44	635	2
2.2	8	Maryland	1992	35	78	9	13	22	7080	25
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.3	< 8	Kentucky	1993	58	64	5	31	36	1255	2
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.4	< 8	Kentucky	1993	—	48	17	35	52	1210	2
2.6	< 8	Kentucky	1993	—	72	15	13	28	940	2
2.8	< 8	Kentucky	1993	—	54	11	35	46	1240	2
3	< 8	Indiana	1993	62	74	10	16	26	790	2
3.6	< 8	Kentucky	1993	49	67	4	29	33	1985	2
3.7	< 8	Kentucky	1993	49	66	16	18	34	990	2
4.694	12	Maryland	2000	—	72	—	—	28	2440	30
4.694	12	Maryland	2000	—	78	—	—	22	1561	30
4.694	12	Maryland	2000	—	79	—	—	21	2764	30
4.848	12	Virginia	2000	—	55	—	—	45	1398	30
5.06	12	Pennsylvania	2000	—	84	—	—	16	3219	30
5.242	12	Virginia	2000	—	74	—	—	26	1160	30
5.242	12	Virginia	2000	—	71	—	—	29	548	30
5.488	12	Delaware	2000	—	80	—	—	20	—	30
5.5	12	Pennsylvania	2000	—	85	—	—	15	2975	30
4.2	< 8	Kentucky	1993	47	62	19	19	38	1705	2
4.694	16	Maryland	2000	—	90	—	—	10	2278	30
4.694	16	Delaware	2000	—	74	—	—	26	2185	30
4.694	16	Delaware	2000	—	58	—	—	42	962	30
4.694	16	Delaware	2000	—	84	—	—	16	2956	30
4.694	16	New Jersey	2000	—	79	—	—	21	1859	30
4.694	20	Delaware	2000	—	84	—	—	16	3864	30
4.848	16	Virginia	2000	—	68	—	—	32	2106	30
4.848	16	Virginia	2000	—	85	—	—	15	2676	30
4.848	16	Virginia	2000	—	75	—	—	25	3244	30
4.848	16	Virginia	2000	—	71	—	—	29	1663	30
4.993	16	Pennsylvania	2000	—	75	—	—	25	1991	30
5.094	16	New Jersey	2000	—	86	—	—	14	1260	30
5.5	16	Pennsylvania	2000	—	82	—	—	18	1570	30
5.543	16	Pennsylvania	2000	—	84	—	—	16	1933	30
5.565	16	Pennsylvania	2000	—	77	—	—	23	2262	30
5.565	16	Pennsylvania	2000	—	68	—	—	32	2854	30
5.565	16	New Jersey	2000	—	58	—	—	42	1253	30
5.565	16	New Jersey	2000	—	79	—	—	21	1928	30
5.565	16	New Jersey	2000	---	84	---	---	16	1953	30

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday PM Peak Period									
# Data Sites	12 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	56% for Sites with between 2 and 8 VFP					75% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
			Survey		Pass-By	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP	State or Province	Year	# Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2.1	8	Maryland	1992	31	52	13	35	48	1785	25
2.1	6	Maryland	1992	30	53	20	27	47	1060	25
2.2	< 8	Indiana	1993	115	48	16	36	52	820	2
2.3	< 8	Kentucky	1993	67	57	16	27	43	1954	2
2.3	6	Maryland	1992	55	40	11	49	60	2760	25
2.4	< 8	Kentucky	1993	—	58	13	29	42	2655	2
2.6	< 8	Kentucky	1993	68	67	15	18	33	950	2
2.8	< 8	Kentucky	1993	—	62	11	27	38	2875	2
3	< 8	Indiana	1993	80	65	15	20	35	1165	2
3.6	< 8	Kentucky	1993	60	56	17	27	44	2505	2
3.7	< 8	Kentucky	1993	70	61	16	23	39	2175	2
4.2	< 8	Kentucky	1993	61	58	26	16	42	2300	2
4.694	12	Maryland	2000	—	78	—	—	22	3549	30
4.694	12	Maryland	2000	—	67	—	—	33	2272	30
4.694	12	Maryland	2000	—	66	—	—	34	3514	30
4.848	12	Virginia	2000	—	71	—	—	29	2350	30
5.06	12	Pennsylvania	2000	—	91	—	—	9	4181	30
5.242	12	Virginia	2000	—	70	—	—	30	2445	30
5.242	12	Virginia	2000	—	56	—	—	44	950	30
5.488	12	Delaware	2000	—	73	—	—	27	—	30
5.5	12	Pennsylvania	2000	—	84	—	—	16	4025	30
4.694	16	Maryland	2000	—	89	—	—	11	2755	30
4.694	16	Delaware	2000	—	73	—	—	27	1858	30
4.694	16	Delaware	2000	—	59	—	—	41	1344	30
4.694	16	Delaware	2000	—	72	—	—	28	3434	30
4.694	16	New Jersey	2000	—	81	—	—	19	1734	30
4.694	20	Delaware	2000	—	76	—	—	24	1616	30
4.848	16	Virginia	2000	—	67	—	—	33	2.954	30
4.848	16	Virginia	2000	—	78	—	—	22	3086	30
4.848	16	Virginia	2000	—	83	—	—	17	4143	30
4.848	16	Virginia	2000	—	73	—	—	27	2534	30
4.993	16	Pennsylvania	2000	—	72	—	—	28	2917	30
5.094	16	New Jersey	2000	—	86	—	—	14	1730	30
5.5	16	Pennsylvania	2000	—	90	—	—	10	2616	30
5.543	16	Pennsylvania	2000	—	87	—	—	13	2363	30
5.565	16	Pennsylvania	2000	—	81	—	—	19	2770	30
5.565	16	Pennsylvania	2000	—	76	—	—	24	3362	30
5.565	16	New Jersey	2000	—	61	—	—	39	1713	30
5.565	16	New Jersey	2000	—	86	—	—	14	1721	30
5.565	16	New Jersey	2000	---	81	---	---	19	2227	30

Table 26. Permitted internal trip capture reductions, City of San Diego.

Land use within MXD	Percent weekday internal trip reductions for MXDs that include predominantly neighborhood-oriented commercial retail		
	A.M. Peak Hour	P.M. Peak Hour	Daily
Residential	8%	10%	10%
Industrial	5%	5%	4%
Commercial Office	5%	4%	3%
Commercial Retail	*	*	*

* Commercial retail reduction equals the sum of the total mixed-use reduction in residential, industrial, and commercial office.
Source: (*45*)

and lists a total of 21 agencies and their requirements for accounting for internal capture for MXDs.

For the U.S. Environmental Protection Agency, Criterion Partners developed geographic information systems (GIS) based software, INDEX. The INDEX software assists in determining the impact of a variety of community design characteristics on vehicle trip generation and VMT (*48*). As inputs to vehicle trips and VMT, the procedure uses population and employment density; population and employment balance (as an indicator of mixed land uses); street network and sidewalk densities; distance to transit; and travel times. The methodology is calibrated and applied at the traffic-analysis-zone level. It uses zone-level regional travel model trip generation as a base and applies elasticities associated with the factors listed above. It does not directly use specific land use trip generation rates or equations of the type typically used in TISs.

ITE's *Trip Generation Handbook* includes a detailed method for estimating internal trip capture (*1*, Ch. 7). It is based on

Table 27. Internal trip capture rates for selected agencies.

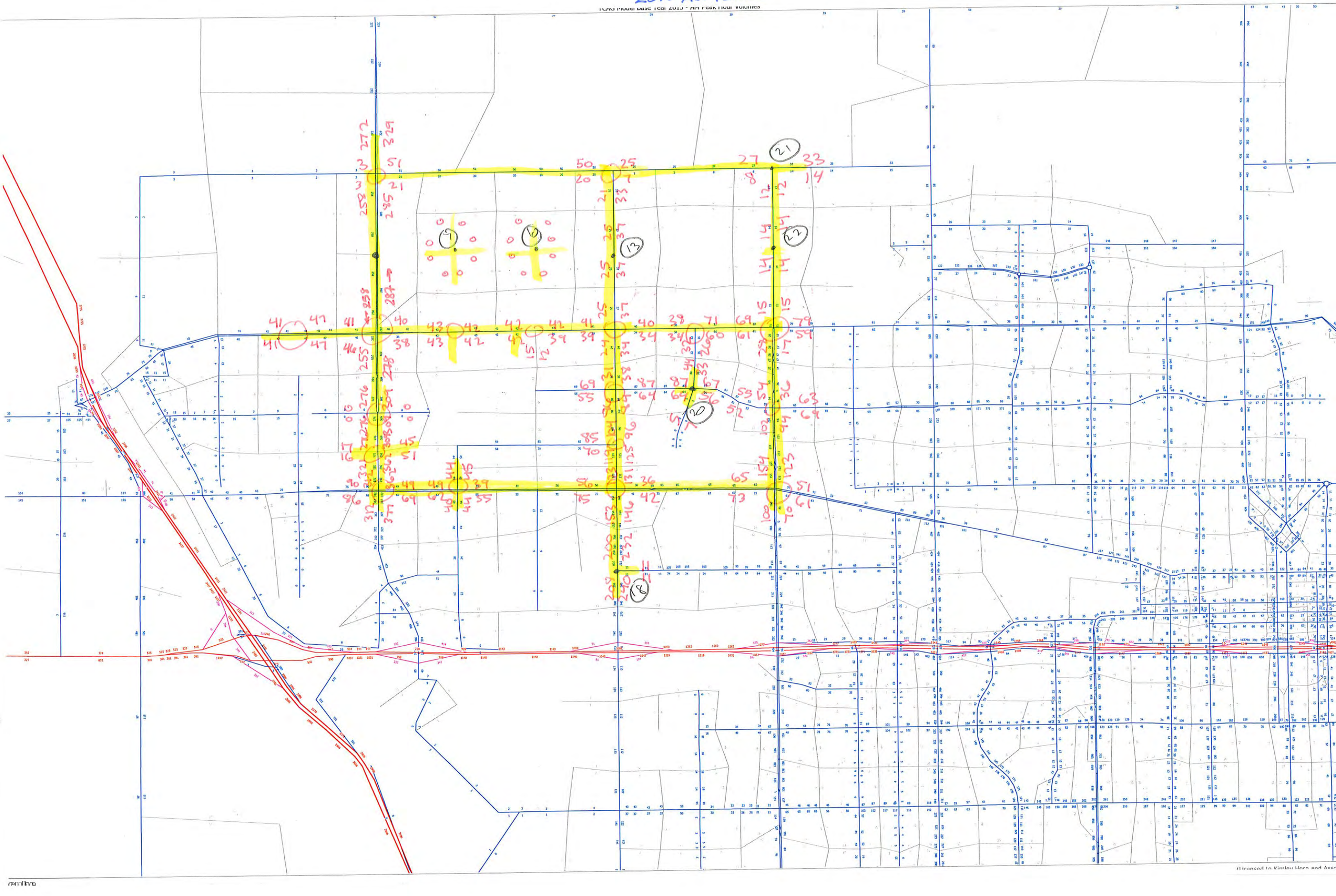
State	Agency	Internal Trip Capture Procedure						
		Max or flat %	Justify/ agency approval for higher rate	Agency approval	ITE *Trip Generation Handbook* procedure	Verify with survey	Formula or table	Other
AZ	Phoenix	● (10–15%)						
	Tempe	● (15%)						
	Tucson				●			
CA	Caltrans	● (5%)	●					
	L.A. County			●		●		
	Newport Beach	● (10%)						
	Pasadena		●		●			
	San Diego						●	
	San Jose	● (10%)						TDM bonus
CO	Boulder			●				
FL	Destin	● (25%)	●					
	FDOT				●			Additional considerations
	Gainesville				●			
	Orlando				●			
GA	GRTA				● (modified)			
IN	Indianapolis				●			
NM	NMDOT				●			Prescribed by city
TX	Austin				●			Other approved sources
	Plano				●			Or citywide study
WA	Seattle				●			
D.C.	Washington				●			Documented alternative

Source: Texas Transportation Institute.

F – TCAG Model Plots and Distribution Calculations

2015 AM PEAK

NCTCOG Model Base Year 2015 - AM Peak Hour Volumes



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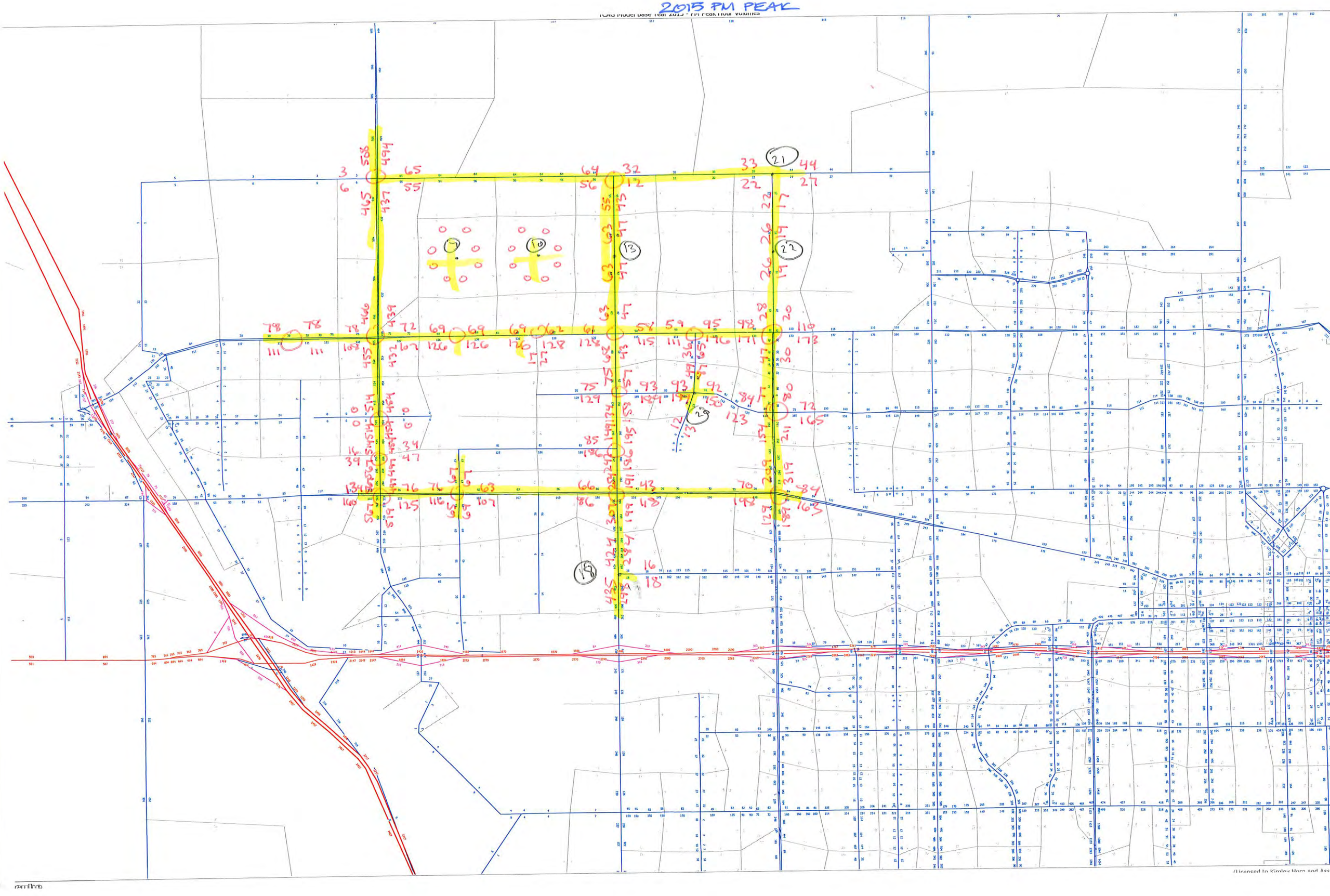
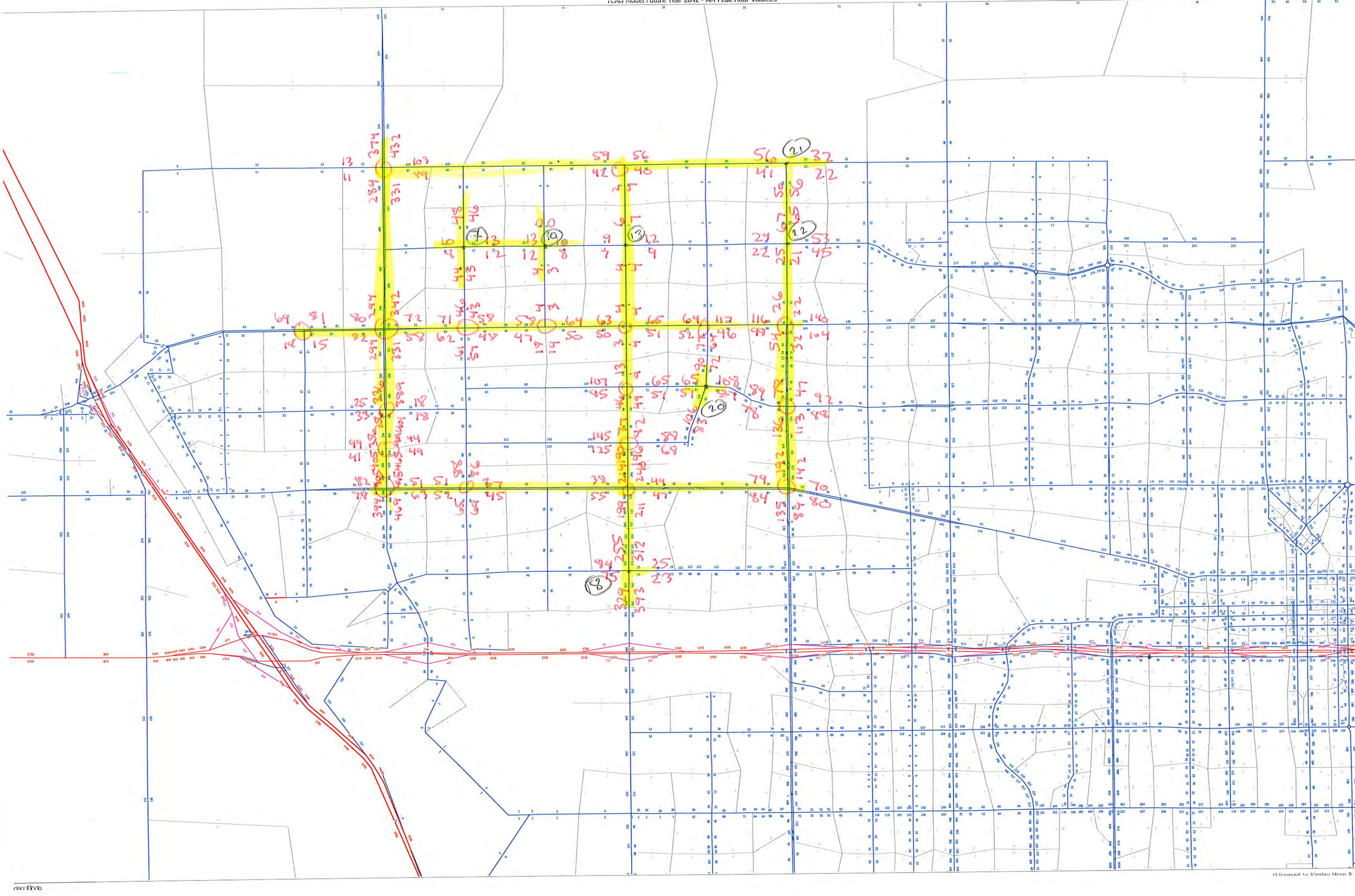
2015 PM PEAK



2042 PM PEAK



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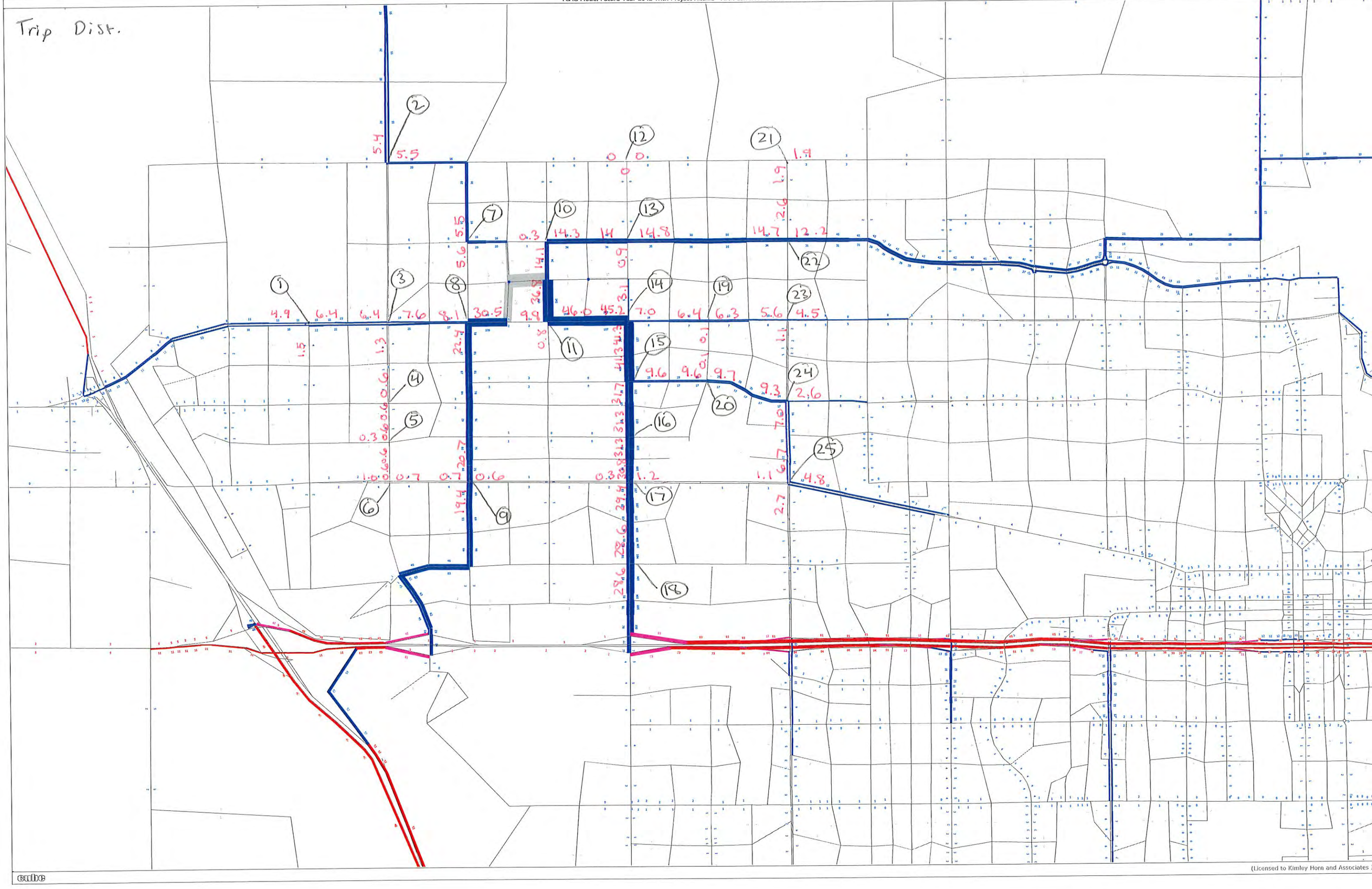
2042 PM PEAK

TCAD Model Future Year 2042 - PM Peak Hour Volumes

Volume development

Trip Dist.



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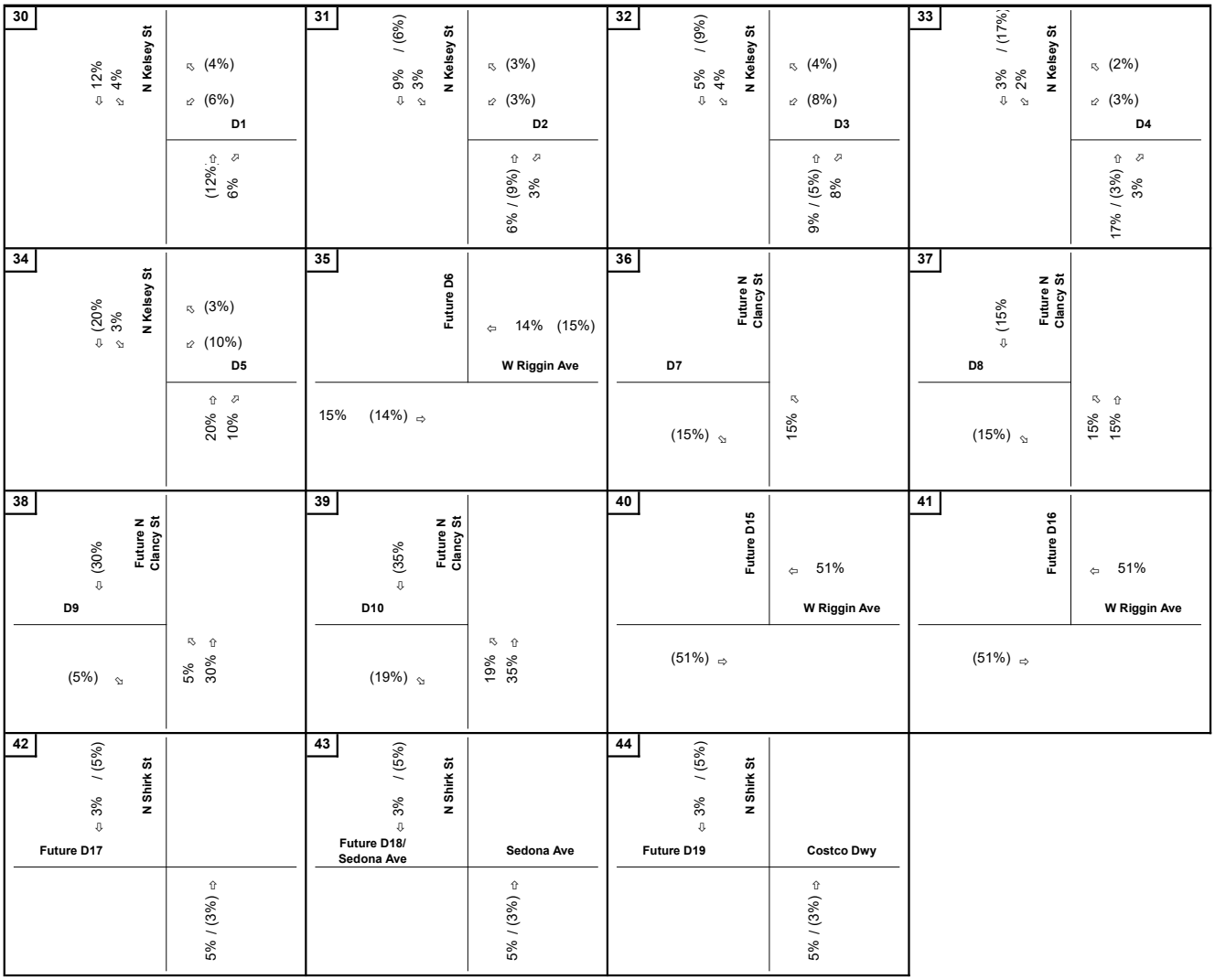
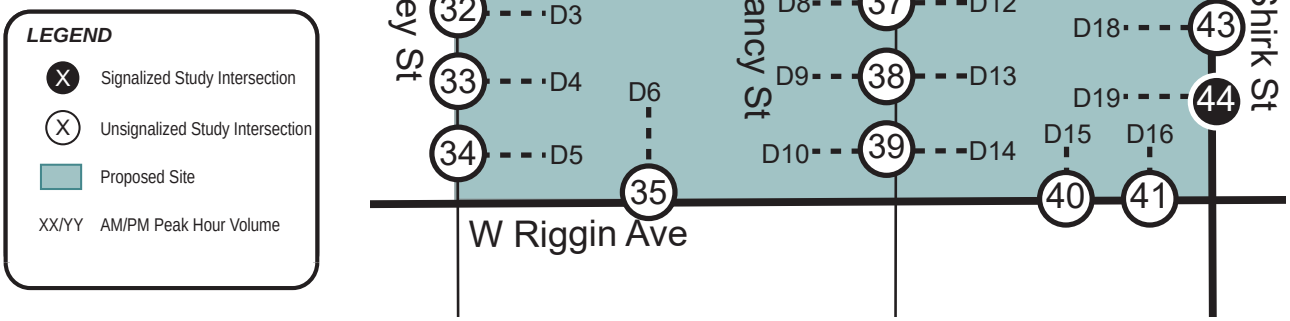
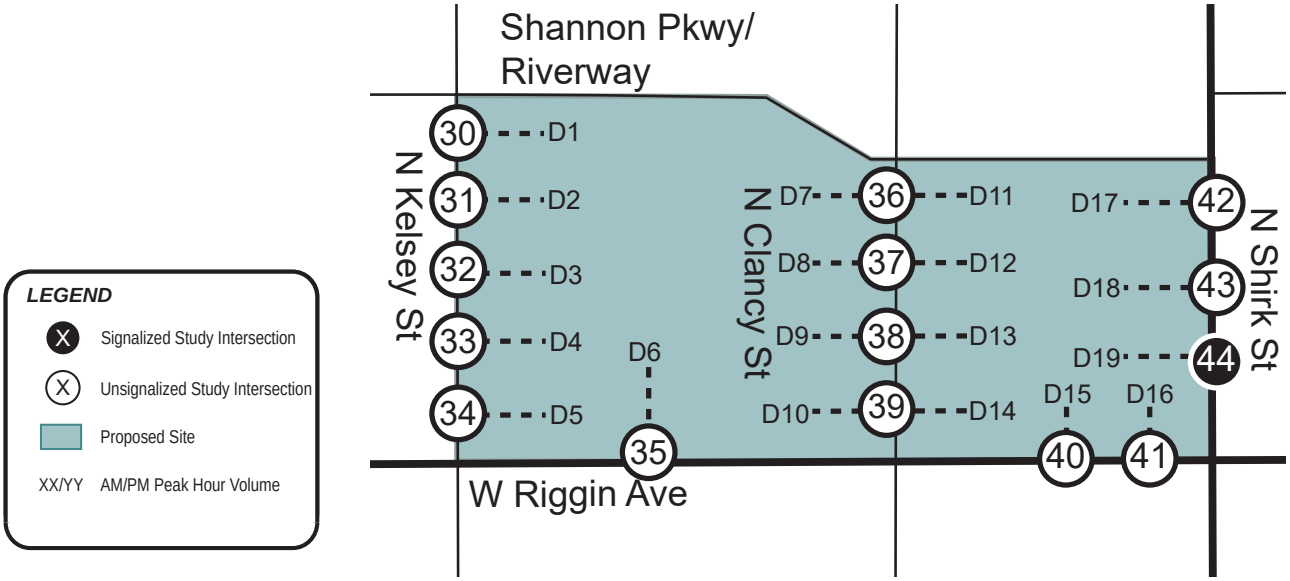
APPENDIX F PHASE 1 PROJECT DRIVEWAY TRIP DISTRIBUTION - WEST



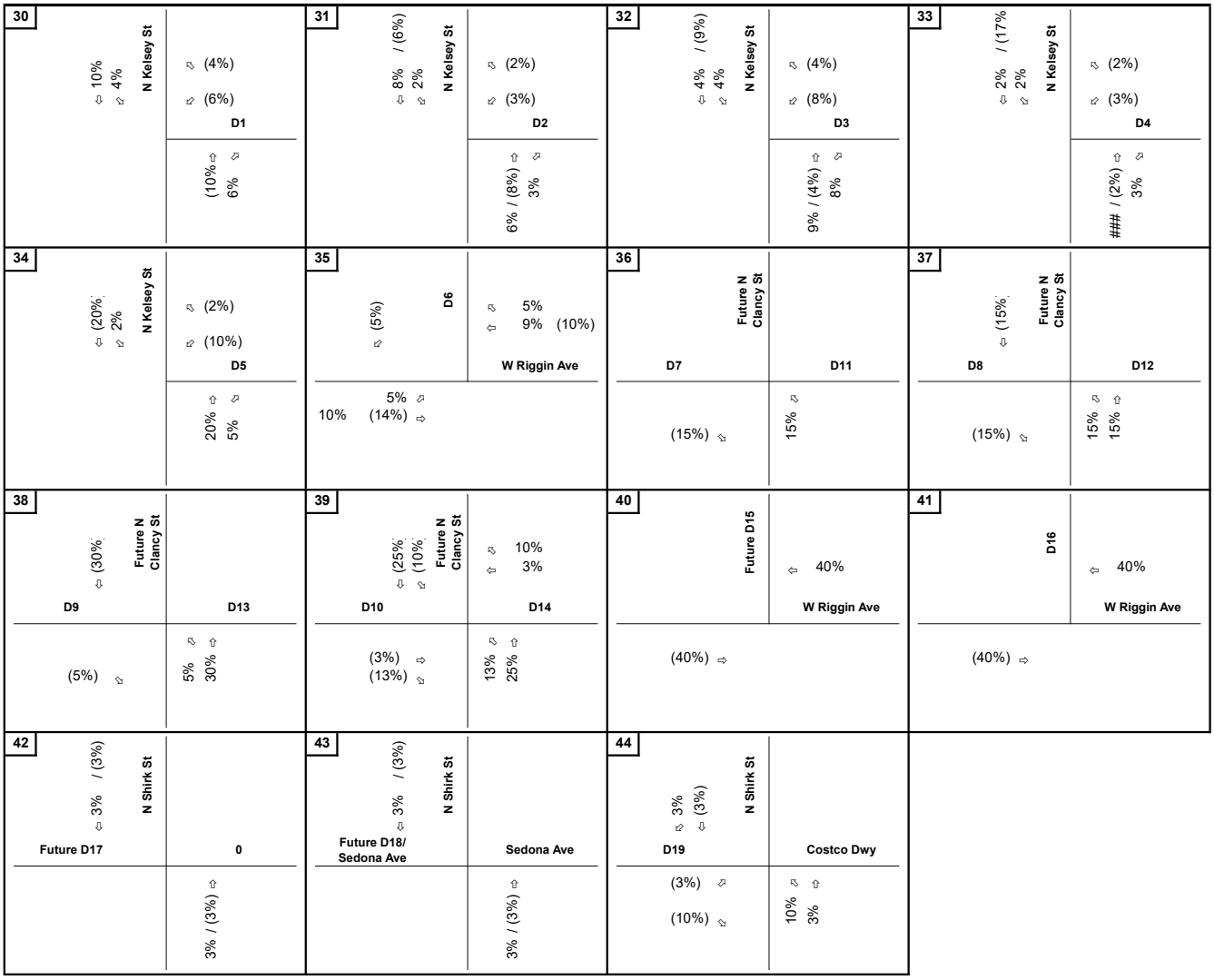


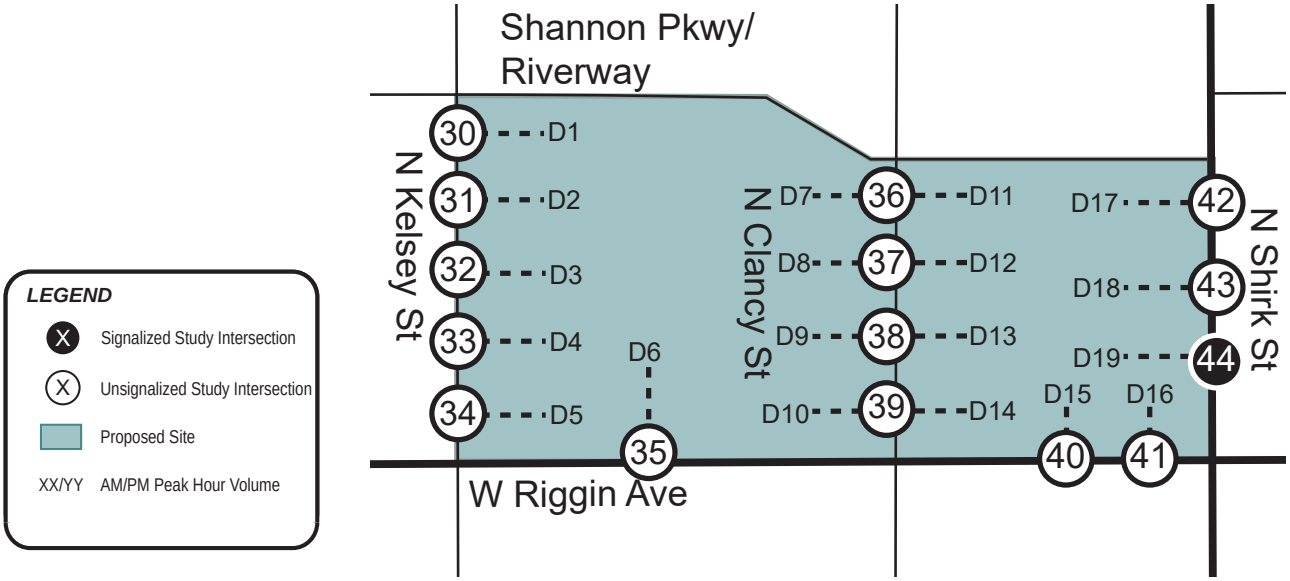
APPENDIX F PHASE 1 PROJECT DRIVEWAY TRIP DISTRIBUTION - EAST

30 N Kelsey St / D1	31 N Kelsey St / D2	32 N Kelsey St / D3	33 N Kelsey St / D4
34 N Kelsey St / D5	35 Future D6 / W Riggin Ave	36 Future N Clancy St / D7	37 Future N Clancy St / D8
38 Future N Clancy St / D9	39 Future N Clancy St / D10	40 Future D15 / W Riggin Ave	41 Future D16 / W Riggin Ave
42 N Shirk St / Future D17 / 0	43 N Shirk St / Future D18/ Sedona Ave / Sedona Ave	44 N Shirk St / Future D19 / Costco Dwy	



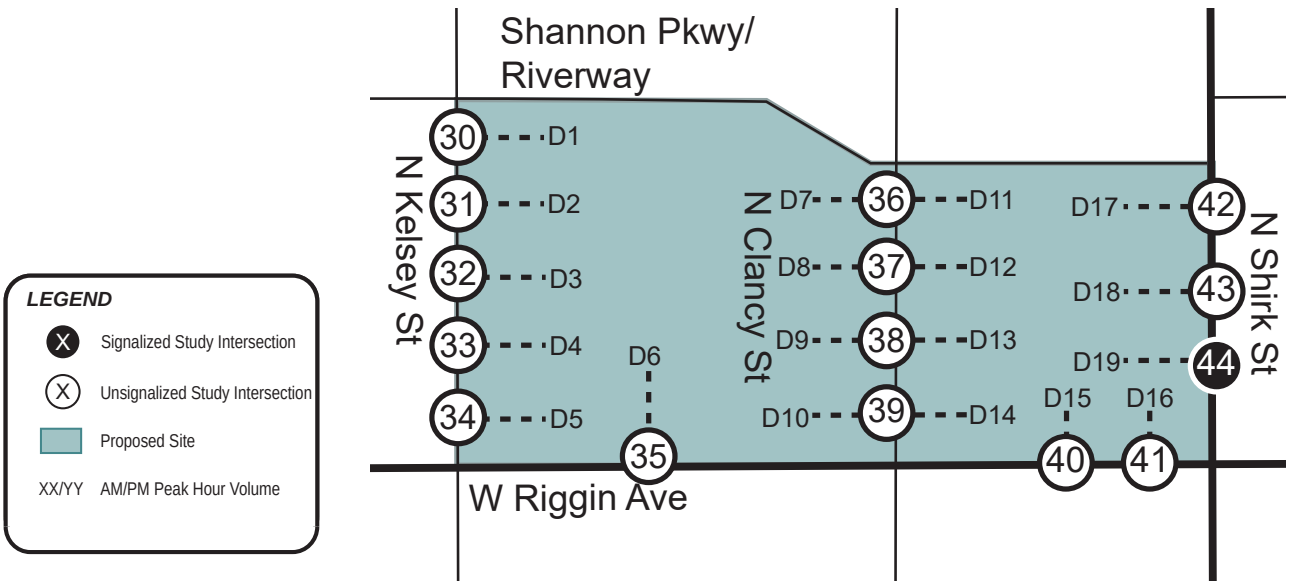
APPENDIX F PHASE 2 PROJECT DRIVEWAY TRIP DISTRIBUTION - WEST



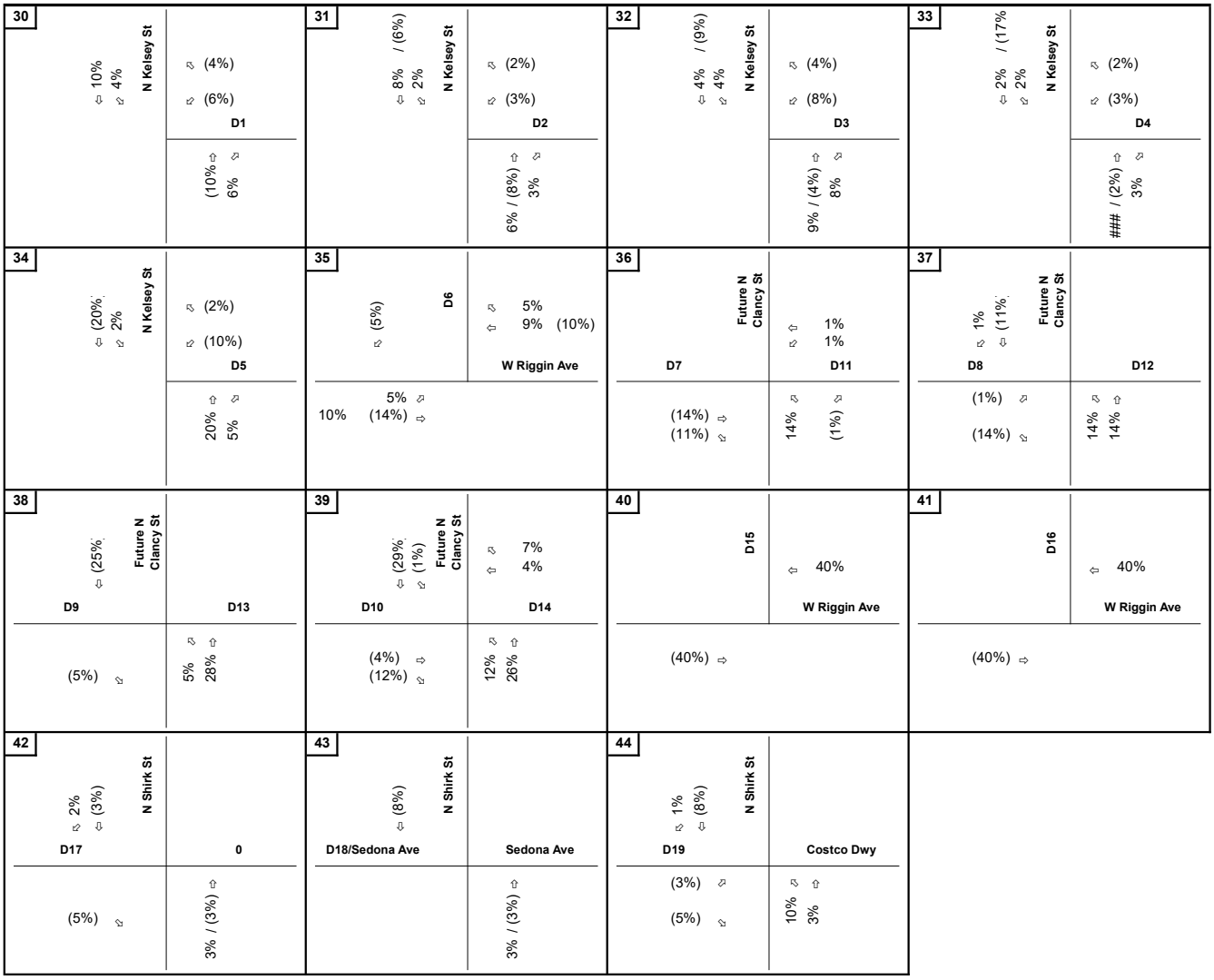


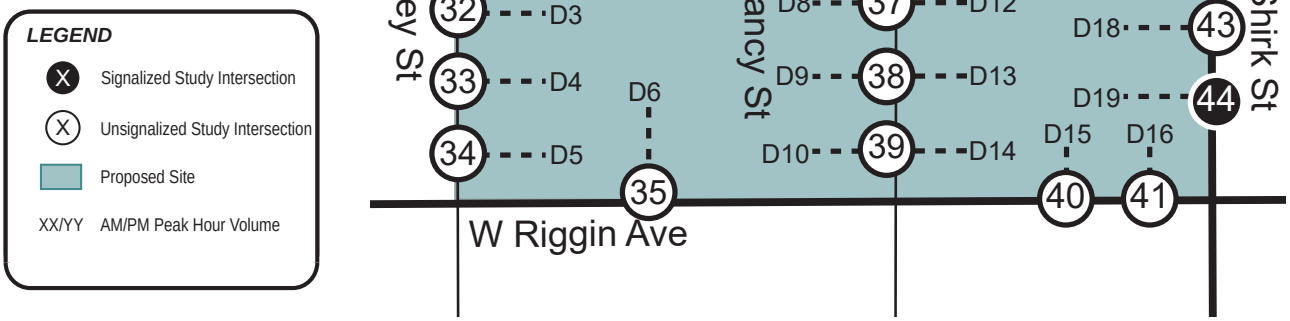
APPENDIX F PHASE 2 PROJECT DRIVEWAY TRIP DISTRIBUTION - EAST

30 5 / 2 ⇩ N Kelsey St N Kelsey St D1 ⇧ 3 / 4	**31** 5 / 2 ⇩ N Kelsey St D2 ⇧ 3 / 4	**32** 5 / 2 ⇩ N Kelsey St D3 ⇧ 3 / 4	**33** 5 / 2 ⇩ N Kelsey St D4 ⇧ 3 / 4
34 5 / 2 ⇩ N Kelsey St D5 ⇧ 3 / 4	**35** D6 ⇦ 44 / 75 W Riggin Ave 80 / 42 ⇨	**36** Future N Clancy St D7 ⇗ 28 / 47 D11 ⇗ 50 / 26	**37** 28 / 47 ⇩ Future N Clancy St D8 ⇗ 8 / 13 D12 ⇧ 50 / 26 ⇗ 14 / 7
38 36 / 60 ⇩ Future N Clancy St D9 ⇗ 8 / 13 D13 ⇧ 64 / 33 ⇗ 14 / 7	**39** 38 / 64 ⇩ 5 / 9 ⇙ Future N Clancy St D10 ⇗ 9 / 5 ⇗ 32 / 54 D14 ⇧ 69 / 36 ⇗ 57 / 30	**40** Future D15 ⇧ 59 / 38 W Riggin Ave 41 / 55 ⇨	**41** 4 / 6 ⇙ D16 ⇗ 23 / 12 ⇦ 55 / 32 W Riggin Ave 41 / 55 ⇨
42 23 / 12 ⇩ N Shirk St Future D17 ⇧ 13 / 21	**43** 23 / 12 ⇩ N Shirk St Future D18/ Sedona Ave ⇧ 13 / 21 Sedona Ave	**44** 23 / 12 ⇙ N Shirk St D19 13 / 21 ⇗ 41 / 69 ⇙ ⇙ 57 / 30 Costco Dwy	



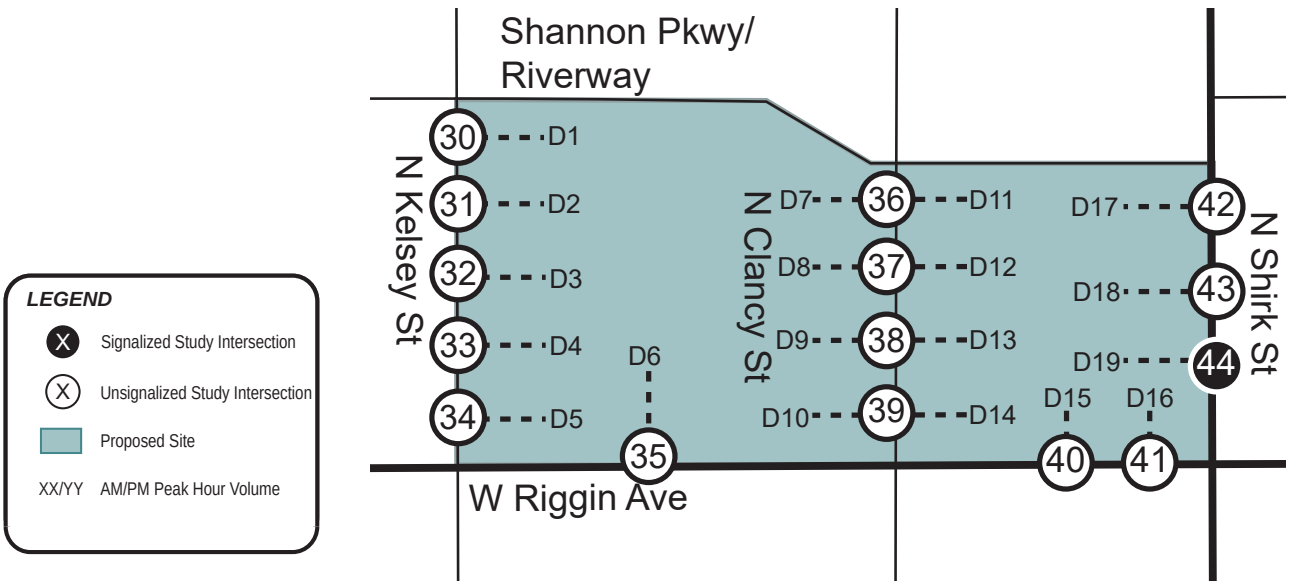
APPENDIX F PHASE 3 (BUILDOUT) PROJECT DRIVEWAY TRIP DISTRIBUTION - WEST





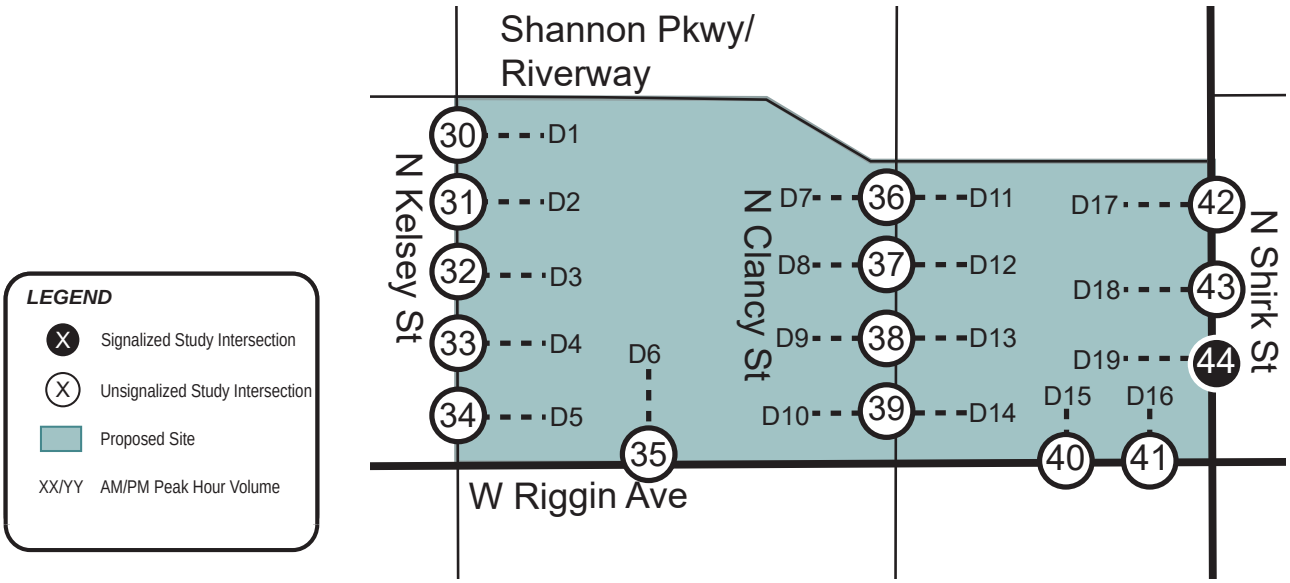
APPENDIX F PHASE 3 (BUILDOUT) PROJECT DRIVEWAY TRIP DISTRIBUTION - EAST

30 2% ⇩ N Kelsey St D1 (2%) ⇧	**31** 2% ⇩ N Kelsey St D2 (2%) ⇧	**32** 2% ⇩ N Kelsey St D3 (2%) ⇧	**33** 2% ⇩ N Kelsey St D4 (2%) ⇧
34 2% ⇩ N Kelsey St D5 (2%) ⇧	**35** D6 ⇦ (35%) W Riggin Ave 35% ⇨	**36** Future N Clancy St D7 ⇗ (19%) D11 19% ⇗	**37** (19%) ⇩ Future N Clancy St D8 ⇗ (4%) D12 19% ⇧ 4% ⇗
38 (23%) ⇩ Future N Clancy St D9 ⇗ (4%) D13 23% ⇧ 4% ⇗	**39** (27%) ⇩ Future N Clancy St D10 ⇗ (16%) D14 27% ⇧ 13% ⇗	**40** (5%) ⇗ D15 ⇗ 3% ⇧ 13% (5%) W Riggin Ave 5% 5% (16%) ⇗ ⇨	**41** (3%) ⇗ D16 ⇗ 7% ⇦ 16% (2%) W Riggin Ave 5% (16%) ⇨
42 5% ⇗ 5% ⇩ N Shirk St D17 (10%) ⇗ 0 (10%) ⇧	**43** 2% ⇗ 3% ⇩ / (10%) N Shirk St D18/Sedona Ave (15%) ⇗ Sedona Ave 14% ⇗ (10%) ⇧	**44** 3% ⇗ (25% ⇩ N Shirk St D19 (10%) ⇗ (14%) ⇗ Costco Dwy 21% ⇗ 14% ⇧	

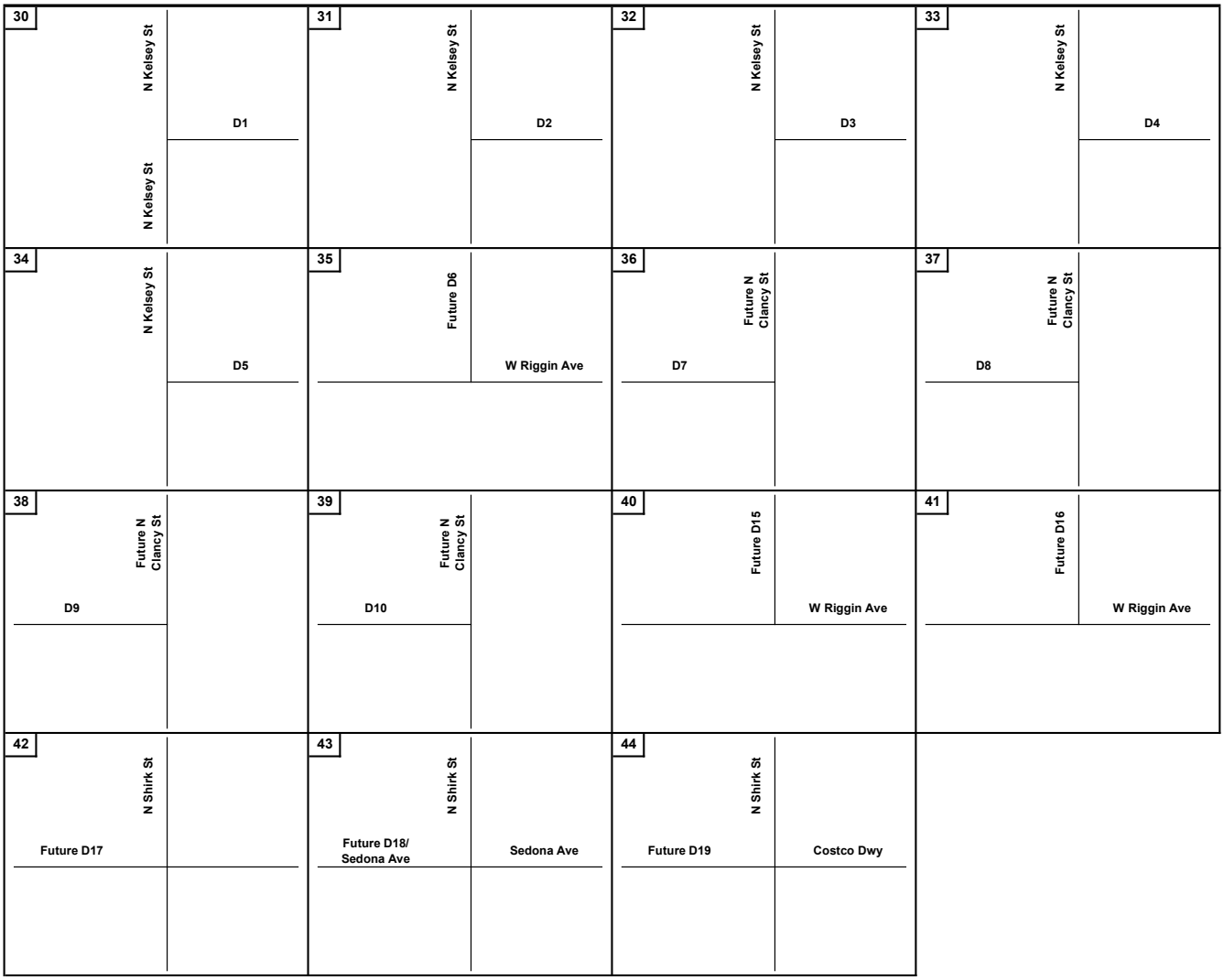


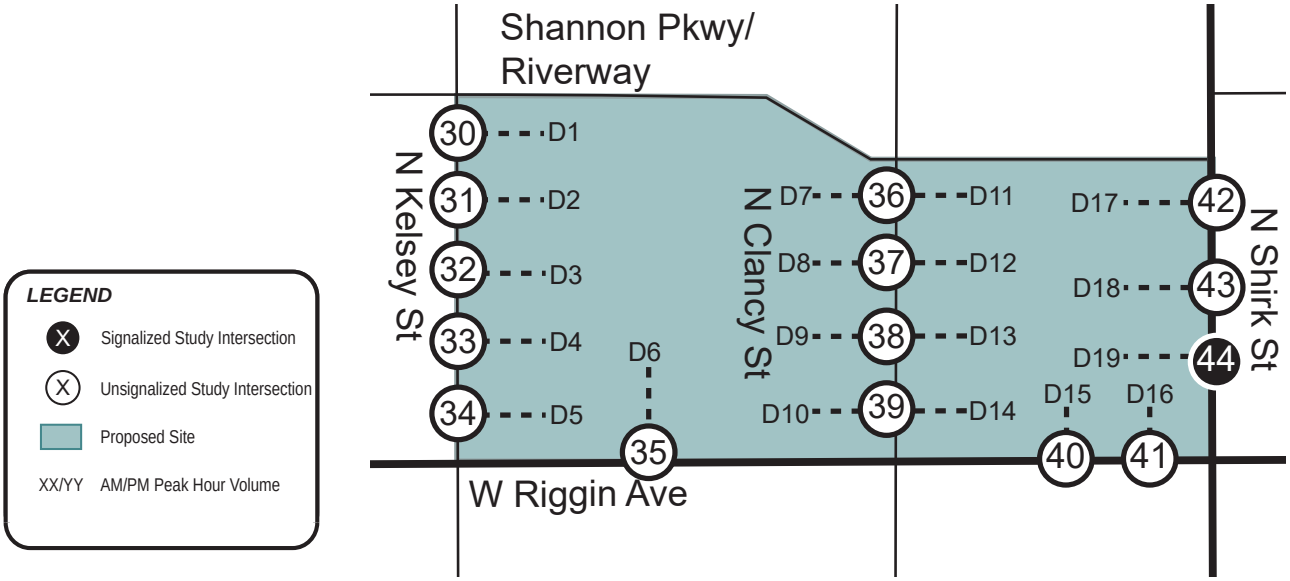
APPENDIX F PHASE 1 PROJECT DRIVEWAY TRIP ASSIGNMENT - WEST

30 66 / 20 22 / 7 N Kelsey St N Kelsey St 6 / 22 10 / 33 D1 19 / 65 33 / 10	**31** 59 / 48 16 / 5 N Kelsey St 5 / 16 5 / 16 D2 47 / 59 16 / 5	**32** 42 / 57 22 / 7 N Kelsey St 6 / 22 13 / 43 D3 57 / 42 44 / 13	**33** 44 / 97 11 / 3 N Kelsey St 3 / 11 5 / 16 D4 98 / 45 16 / 5
34 32 / 108 16 / 5 N Kelsey St 5 / 16 16 / 54 D5 110 / 33 55 / 17	**35** Future D6 101 / 105 W Riggin Ave 105 / 101	**36** Future N Clancy St D7 24 / 81 82 / 25	**37** 24 / 81 Future N Clancy St D8 24 / 81 82 / 25 82 / 25
38 48 / 163 Future N Clancy St D9 8 / 27 27 / 8 164 / 50	**39** 56 / 190 Future N Clancy St D10 31 / 103 104 / 32 192 / 58	**40** Future D15 279 / 85 W Riggin Ave 82 / 276	**41** Future D16 279 / 85 W Riggin Ave 82 / 276
42 24 / 32 N Shirk St Future D17 32 / 25	**43** 24 / 32 N Shirk St Future D18/ Sedona Ave Sedona Ave 32 / 25	**44** 24 / 32 N Shirk St Future D19 Costco Dwy 32 / 25	



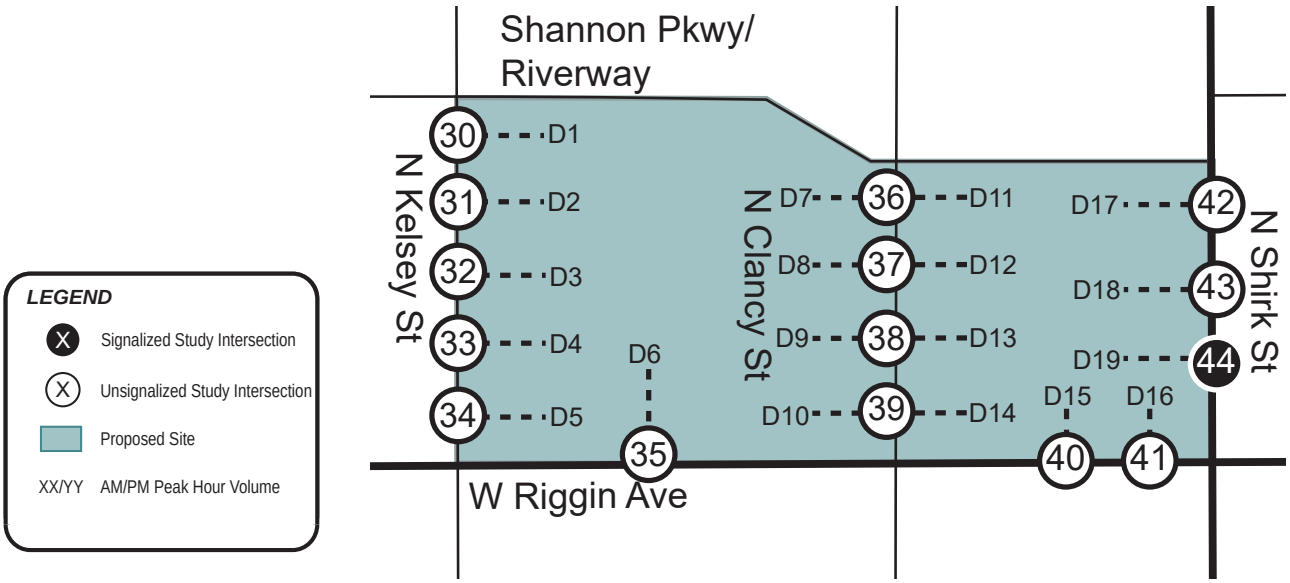
APPENDIX F PHASE 1 PROJECT DRIVEWAY TRIP ASSIGNMENT - EAST





APPENDIX F PHASE 1 PROJECT DRIVEWAY TRIP ASSIGNMENT - TOTAL

30 N Kelsey St 66 / 20 22 / 7 N Kelsey St 6 / 22 10 / 33 D1 19 / 65 33 / 10	**31** N Kelsey St 59 / 48 16 / 5 N Kelsey St 5 / 16 5 / 16 D2 47 / 59 16 / 5	**32** N Kelsey St 42 / 57 22 / 7 N Kelsey St 6 / 22 13 / 43 D3 57 / 42 44 / 13	**33** N Kelsey St 44 / 97 11 / 3 N Kelsey St 3 / 11 5 / 16 D4 98 / 45 16 / 5	
34 N Kelsey St 32 / 108 16 / 5 N Kelsey St 5 / 16 16 / 54 D5 110 / 33 55 / 17	**35** Future D6 W Riggin Ave 101 / 105 105 / 101	**36** Future N Clancy St D7 24 / 81 82 / 25	**37** Future N Clancy St 24 / 81 D8 24 / 81 82 / 25 82 / 25	
38 Future N Clancy St 48 / 163 D9 8 / 27 27 / 8 164 / 50	**39** Future N Clancy St 56 / 190 D10 31 / 103 104 / 32 192 / 58	**40** Future D15 279 / 85 W Riggin Ave 82 / 276	**41** Future D16 279 / 85 W Riggin Ave 82 / 276	
42 N Shirk St 24 / 32 Future D17 32 / 25	**43** N Shirk St 24 / 32 Future D18/ Sedona Ave Sedona Ave 32 / 25	**44** N Shirk St 24 / 32 Future D19 Costco Dwy 32 / 25		



APPENDIX F PHASE 2 PROJECT DRIVEWAY TRIP ASSIGNMENT - WEST

30

N Kelsey St

64 / 20 ⇩ 26 / 8 ⇧

N Kelsey St

8 / 25 ⇖

11 / 38 ⇘

D1

19 / 63 ⇑ 38 / 12 ⇗

31

N Kelsey St

63 / 54 ⇩ 13 / 4 ⇧

N Kelsey St

4 / 13 ⇖

6 / 19 ⇘

D2

54 / 62 ⇑ 19 / 6 ⇗

32

N Kelsey St

43 / 65 ⇩ 26 / 8 ⇧

N Kelsey St

8 / 25 ⇖

15 / 51 ⇘

D3

65 / 43 ⇑ 51 / 16 ⇗

33

N Kelsey St

45 / 112 ⇩ 13 / 4 ⇧

N Kelsey St

4 / 13 ⇖

6 / 19 ⇘

D4

113 / 46 ⇑ 19 / 6 ⇗

34

N Kelsey St

38 / 127 ⇩ 13 / 4 ⇧

N Kelsey St

4 / 13 ⇖

19 / 63 ⇘

D5

128 / 39 ⇑ 32 / 10 ⇗

35

9 / 32 ⇘

D6

W Riggin Ave

32 / 10 ⇖

77 / 81 ⇗

32 / 10 ⇘

91 / 108 ⇙

36

Future N Clancy St

D7

Future N Clancy St

D11

28 / 95 ⇙

96 / 29 ⇗

37

Future N Clancy St

28 / 95 ⇩

D8

Future N Clancy St

D12

28 / 95 ⇙

96 / 29 ⇑ 96 / 29 ⇗

38

Future N Clancy St

57 / 190 ⇩

D9

D13

9 / 32 ⇙

32 / 10 ⇖ 192 / 59 ⇑

39

Future N Clancy St

47 / 159 ⇩ 19 / 63 ⇙

D10

W Riggin Ave

64 / 20 ⇖

19 / 6 ⇗

D14

6 / 19 ⇘

25 / 82 ⇙

83 / 25 ⇖ 160 / 49 ⇑

40

Future D15

W Riggin Ave

256 / 78 ⇗

76 / 254 ⇙

41

D16

W Riggin Ave

256 / 78 ⇦

76 / 254 ⇙

42

N Shirk St

25 / 25 ⇩

Future D17

25 / 25 ⇑

43

N Shirk St

25 / 25 ⇩

Future D18/ Sedona Ave

Sedona Ave

25 / 25 ⇑

44

N Shirk St

19 / 6 ⇖ 6 / 19 ⇓

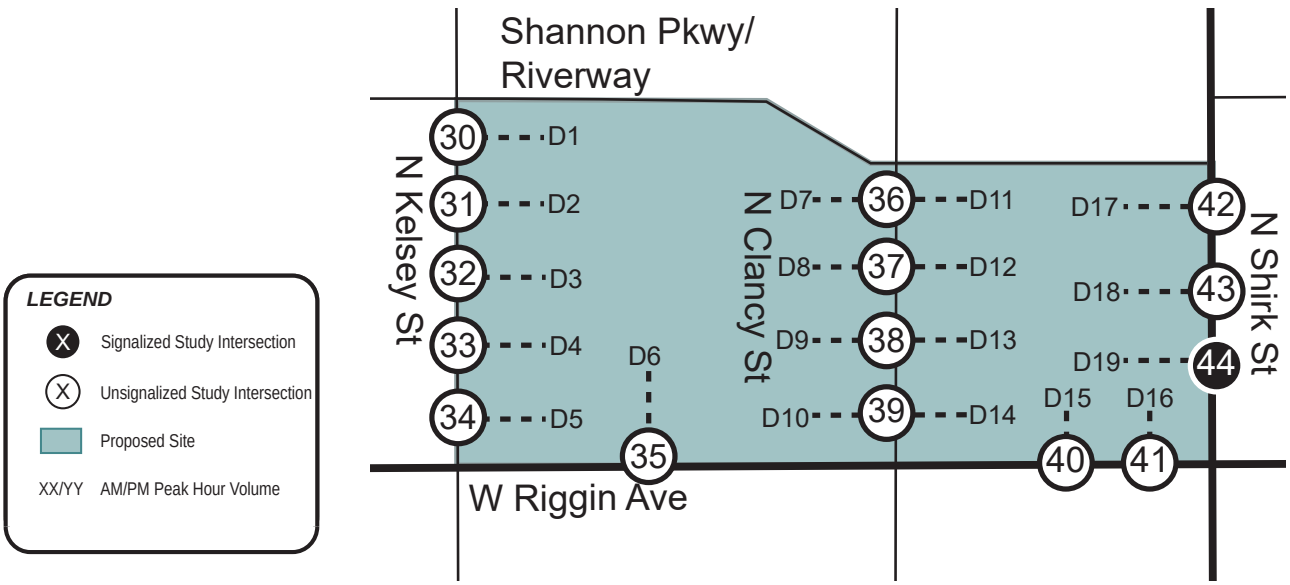
D19

6 / 19 ⇘

19 / 63 ⇙

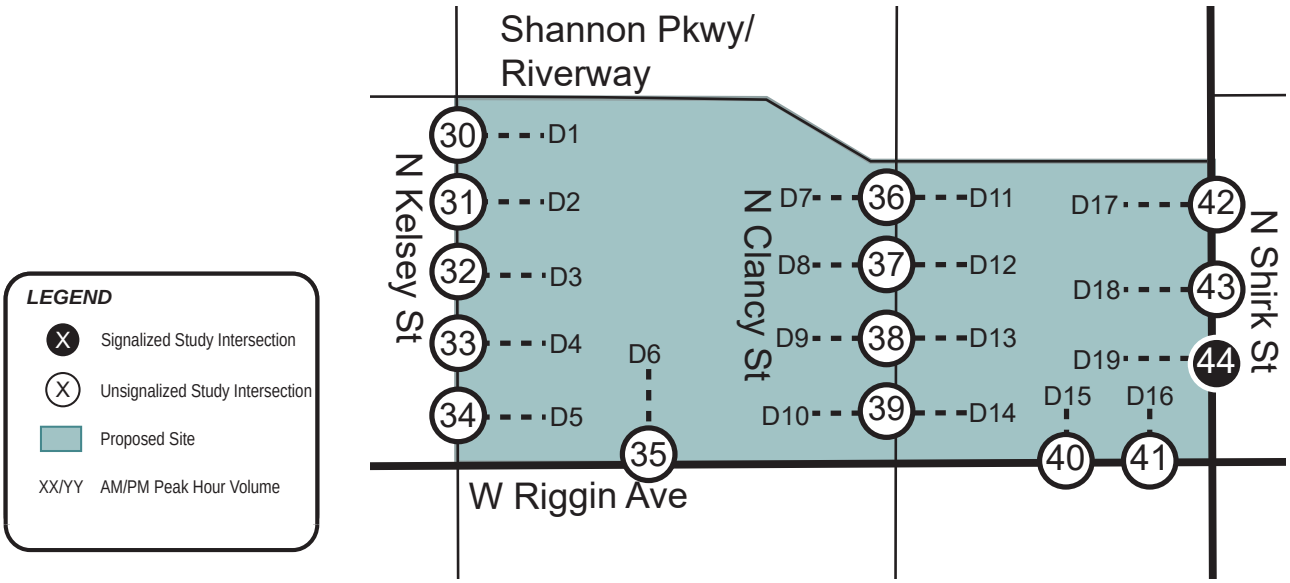
Costco Dwy

64 / 20 ⇖ 19 / 6 ⇑



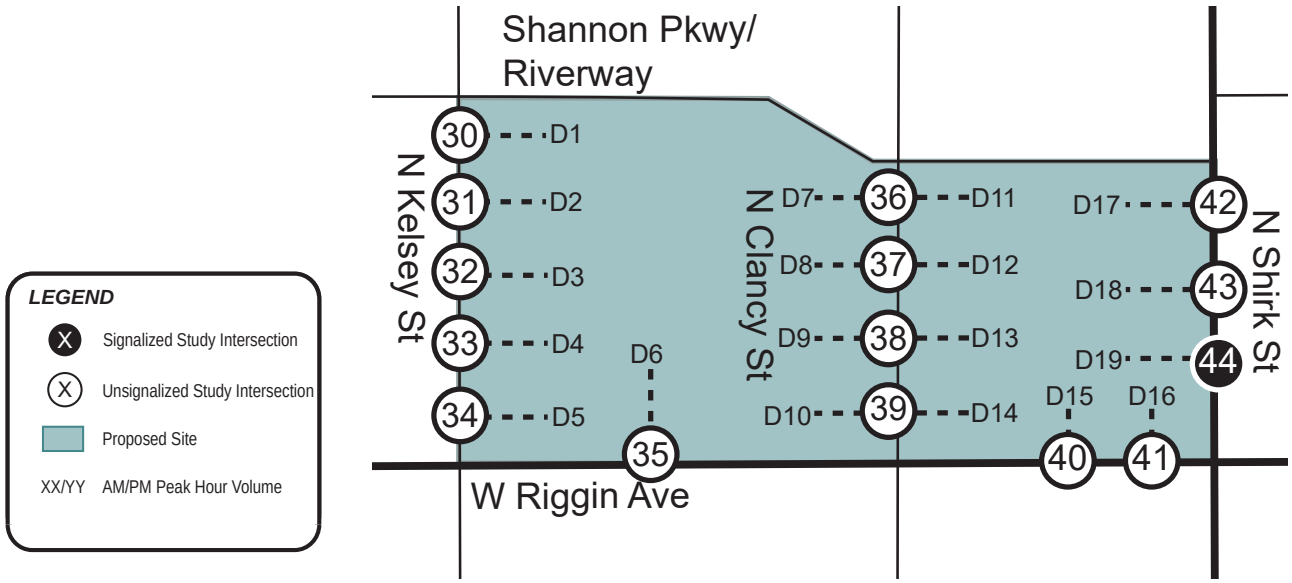
APPENDIX F PHASE 2 PROJECT DRIVEWAY TRIP ASSIGNMENT - EAST

30 5 / 2 ⇩ N Kelsey St N Kelsey St D1 ⇧ 3 / 4	**31** 5 / 2 ⇩ N Kelsey St D2 ⇧ 3 / 4	**32** 5 / 2 ⇩ N Kelsey St D3 ⇧ 3 / 4	**33** 5 / 2 ⇩ N Kelsey St D4 ⇧ 3 / 4	
34 5 / 2 ⇩ N Kelsey St D5 ⇧ 3 / 4	**35** D6 ⇦ 44 / 75 W Riggin Ave 80 / 42 ⇨	**36** Future N Clancy St D7 ⇗ 28 / 47 D11 ⇗ 50 / 26	**37** 28 / 47 ⇩ Future N Clancy St D8 ⇗ 8 / 13 D12 ⇧ 50 / 26 ⇗ 14 / 7	
38 36 / 60 ⇩ Future N Clancy St D9 ⇗ 8 / 13 D13 ⇧ 64 / 33 ⇗ 14 / 7	**39** 38 / 64 ⇩ 5 / 9 ⇙ Future N Clancy St D10 ⇗ 9 / 5 ⇗ 32 / 54 D14 ⇧ 69 / 36 ⇗ 57 / 30	**40** Future D15 ⇧ 59 / 38 W Riggin Ave 41 / 55 ⇨	**41** 4 / 6 ⇙ D16 ⇗ 23 / 12 ⇦ 55 / 32 W Riggin Ave 41 / 55 ⇨	
42 23 / 12 ⇩ N Shirk St Future D17 ⇧ 13 / 21	**43** 23 / 12 ⇩ N Shirk St Future D18/ Sedona Ave Sedona Ave ⇧ 13 / 21	**44** 23 / 12 ⇙ N Shirk St D19 13 / 21 ⇗ 41 / 69 ⇗ Costco Dwy ⇙ 57 / 30		

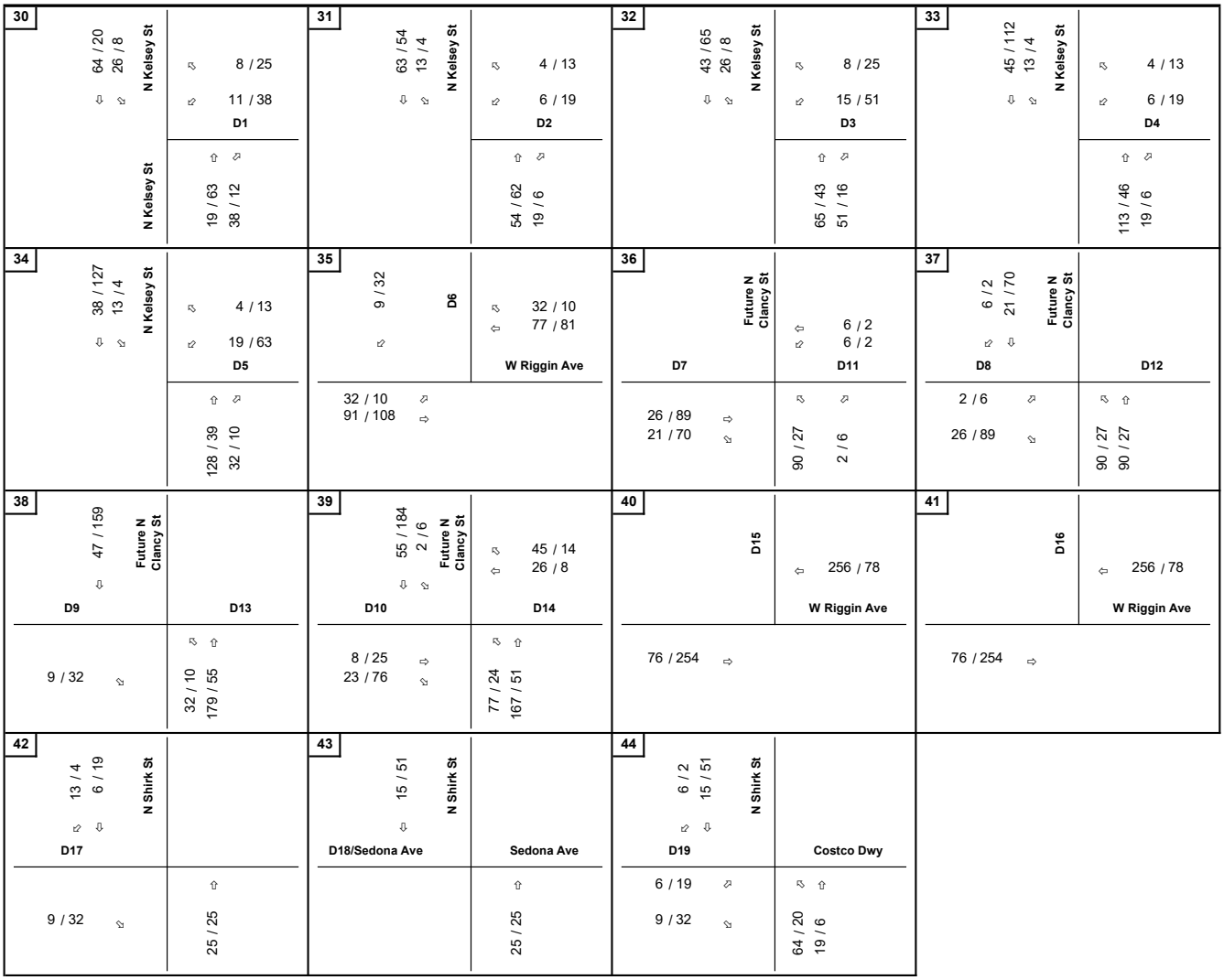


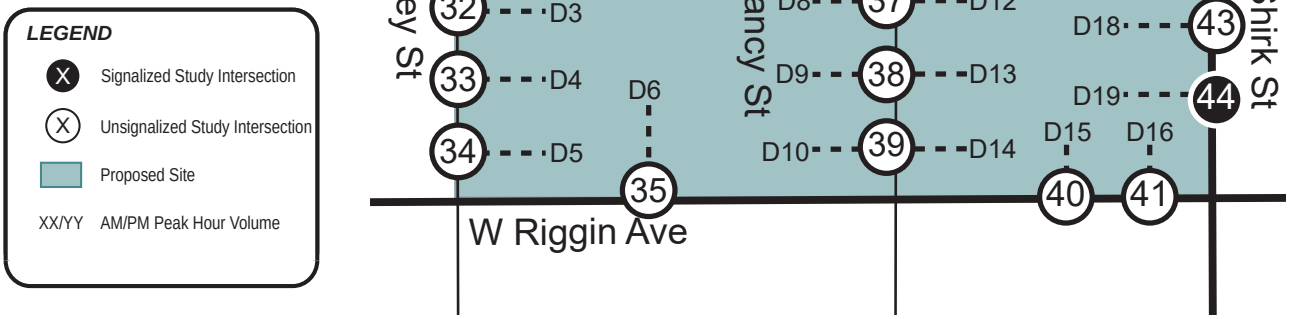
APPENDIX F PHASE 2 PROJECT DRIVEWAY TRIP ASSIGNMENT - TOTAL

30 N Kelsey St 69 / 22 26 / 8 N Kelsey St 8 / 25 11 / 38 D1 22 / 67 38 / 12	**31** N Kelsey St 68 / 56 13 / 4 N Kelsey St 4 / 13 6 / 19 D2 57 / 66 19 / 6	**32** N Kelsey St 48 / 67 26 / 8 N Kelsey St 8 / 25 15 / 51 D3 68 / 47 51 / 16	**33** N Kelsey St 50 / 114 13 / 4 N Kelsey St 4 / 13 6 / 19 D4 116 / 50 19 / 6
34 N Kelsey St 43 / 129 13 / 4 N Kelsey St 4 / 13 19 / 63 D5 131 / 43 32 / 10	**35** D6 9 / 32 W Riggin Ave 32 / 10 121 / 156 32 / 10 171 / 150	**36** Future N Clancy St D7 Future N Clancy St 28 / 47 D11 28 / 95 96 / 29 50 / 26	**37** D8 56 / 142 Future N Clancy St 8 / 13 D12 28 / 95 96 / 29 146 / 55 14 / 7
38 D9 93 / 250 Future N Clancy St 8 / 13 D13 9 / 32 32 / 10 256 / 92 14 / 7	**39** D10 85 / 223 24 / 72 Future N Clancy St 73 / 25 19 / 6 32 / 54 D14 6 / 19 25 / 82 83 / 25 229 / 85 57 / 30	**40** Future D15 315 / 116 W Riggin Ave 117 / 309	**41** D16 4 / 6 23 / 12 311 / 110 W Riggin Ave 117 / 309
42 Future D17 48 / 37 N Shirk St 38 / 46	**43** Future D18/ Sedona Ave 48 / 37 N Shirk St Sedona Ave 38 / 46	**44** D19 42 / 18 6 / 19 N Shirk St Costco Dwy 19 / 40 60 / 132 121 / 50 19 / 6	

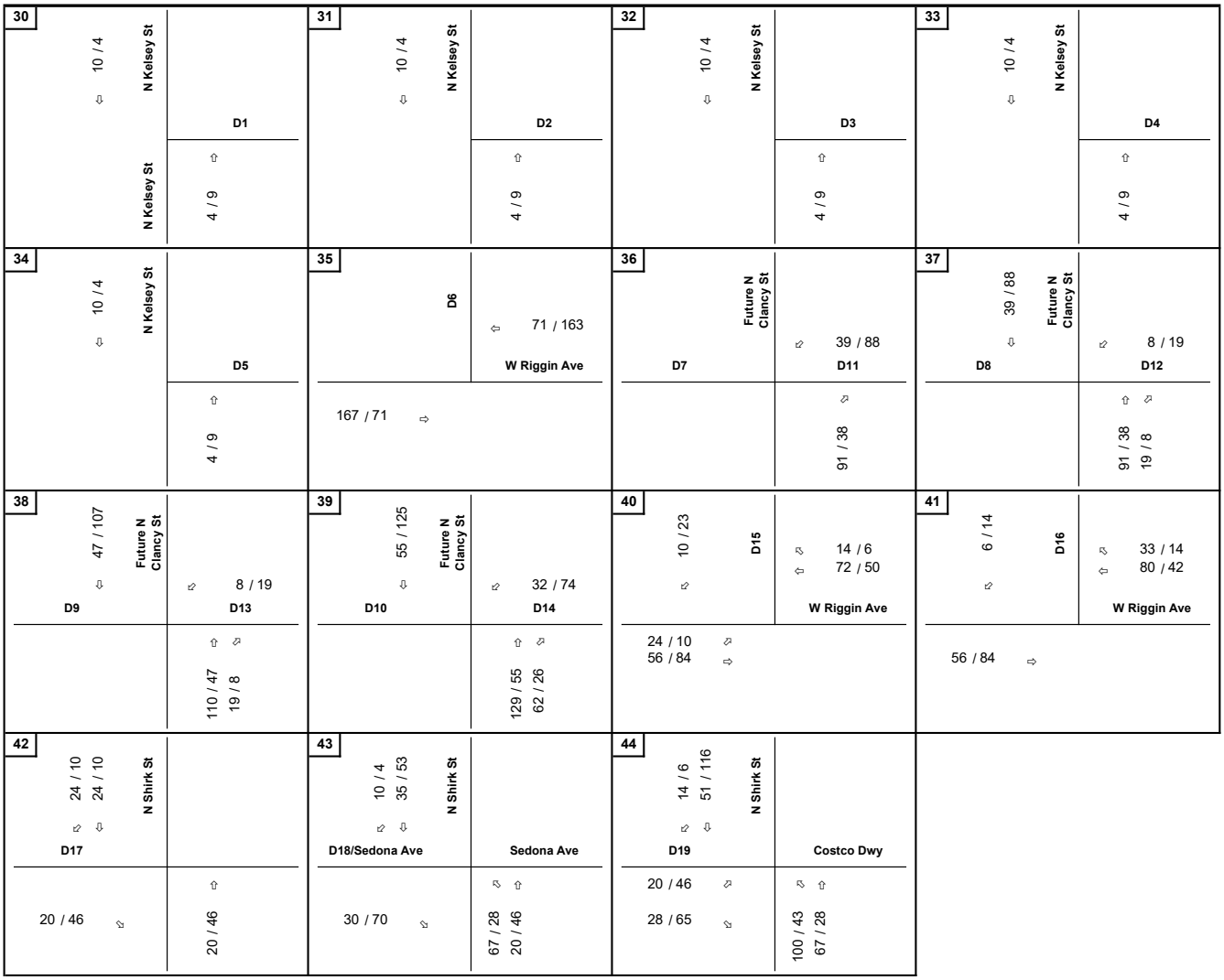


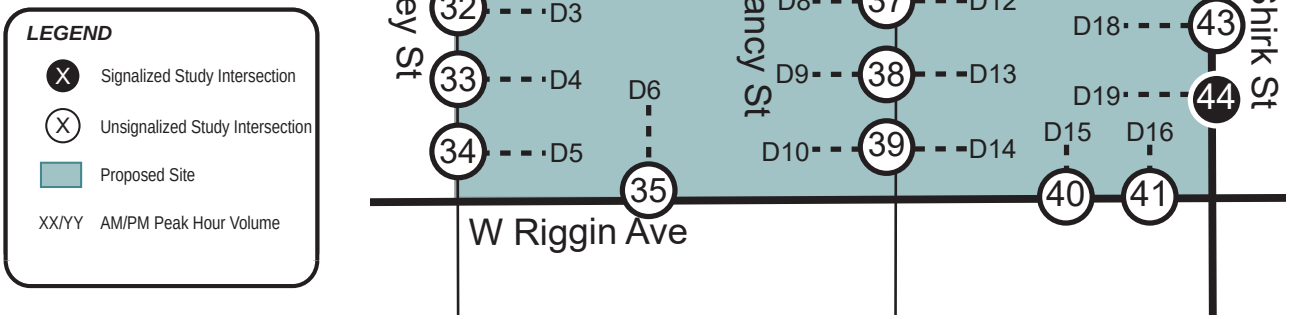
APPENDIX F PHASE 3 (BUILDOUT) PROJECT DRIVEWAY TRIP ASSIGNMENT - WEST



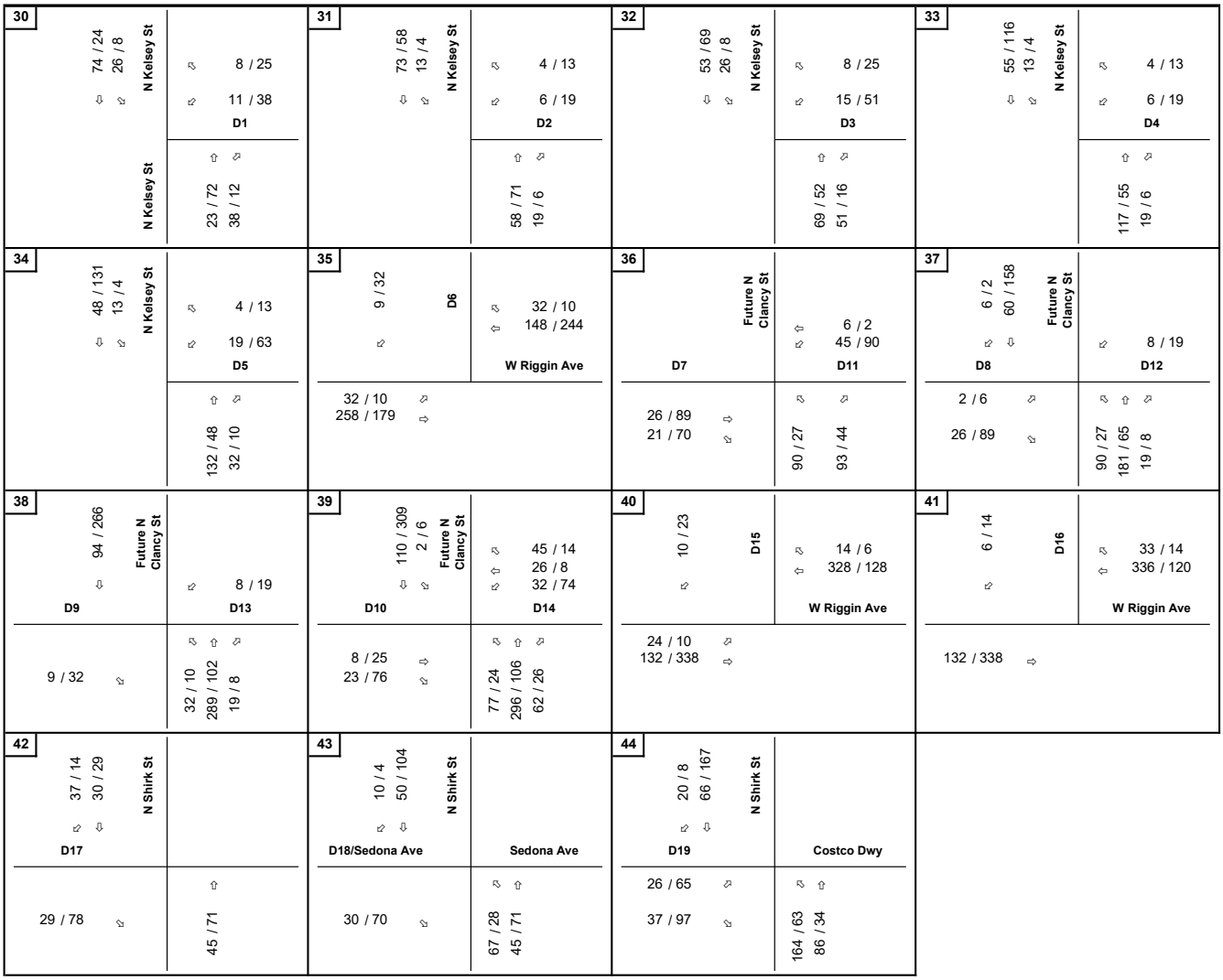


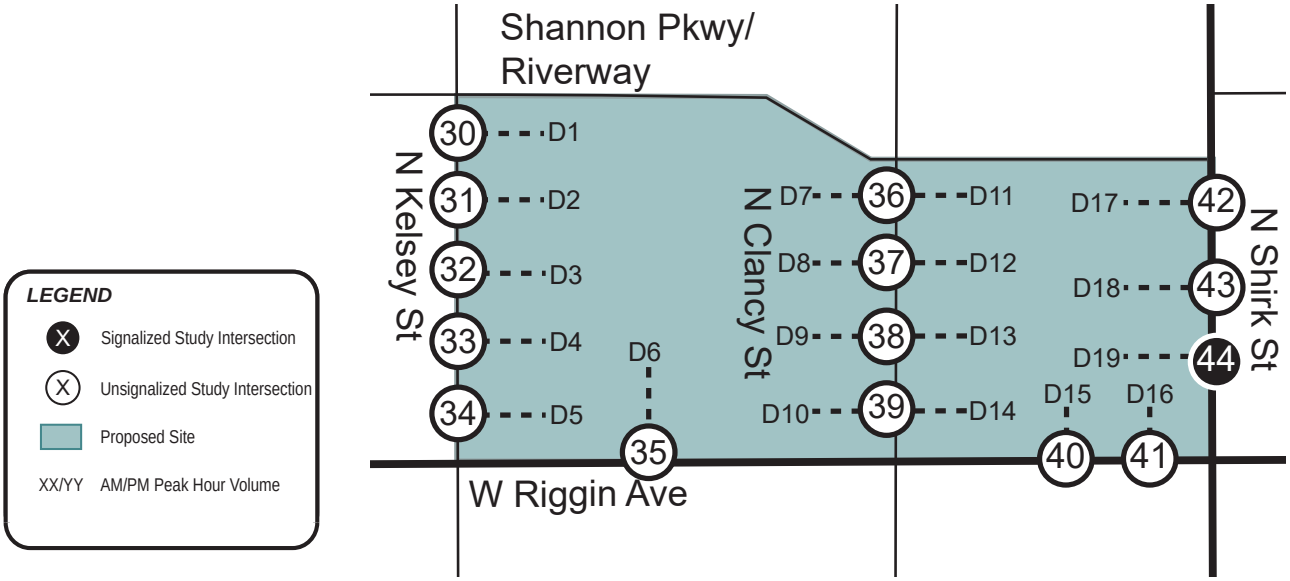
APPENDIX F PHASE 3 (BUILDOUT) PROJECT DRIVEWAY TRIP ASSIGNMENT - EAST





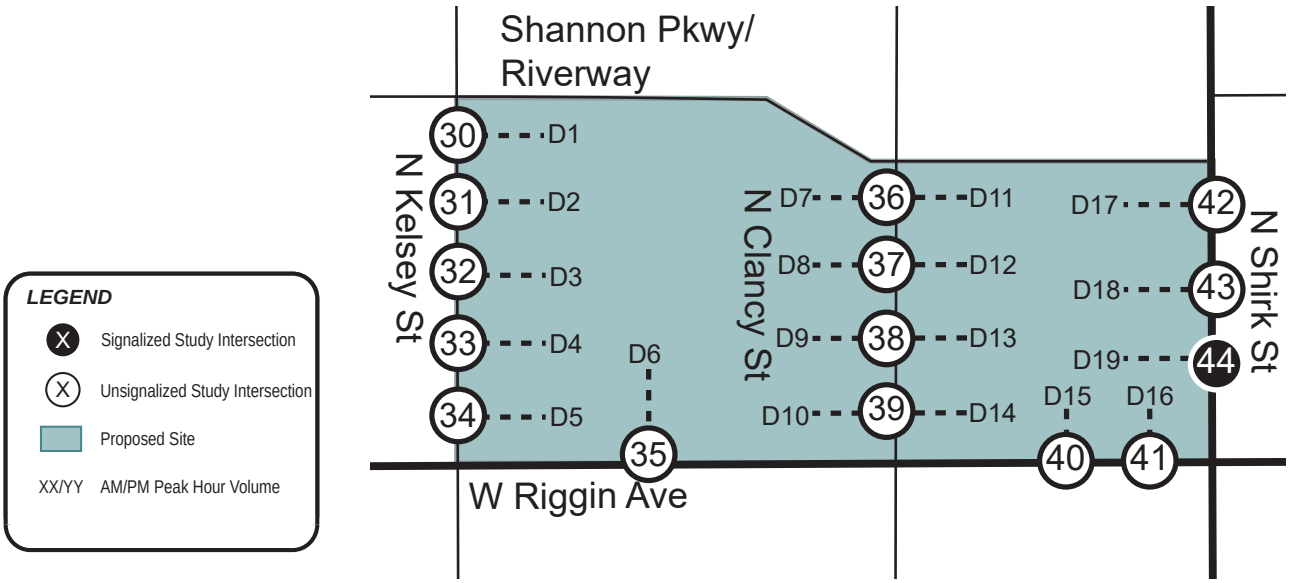
APPENDIX F PHASE 3 (BUILDOUT) PROJECT DRIVEWAY TRIP ASSIGNMENT - TOTAL





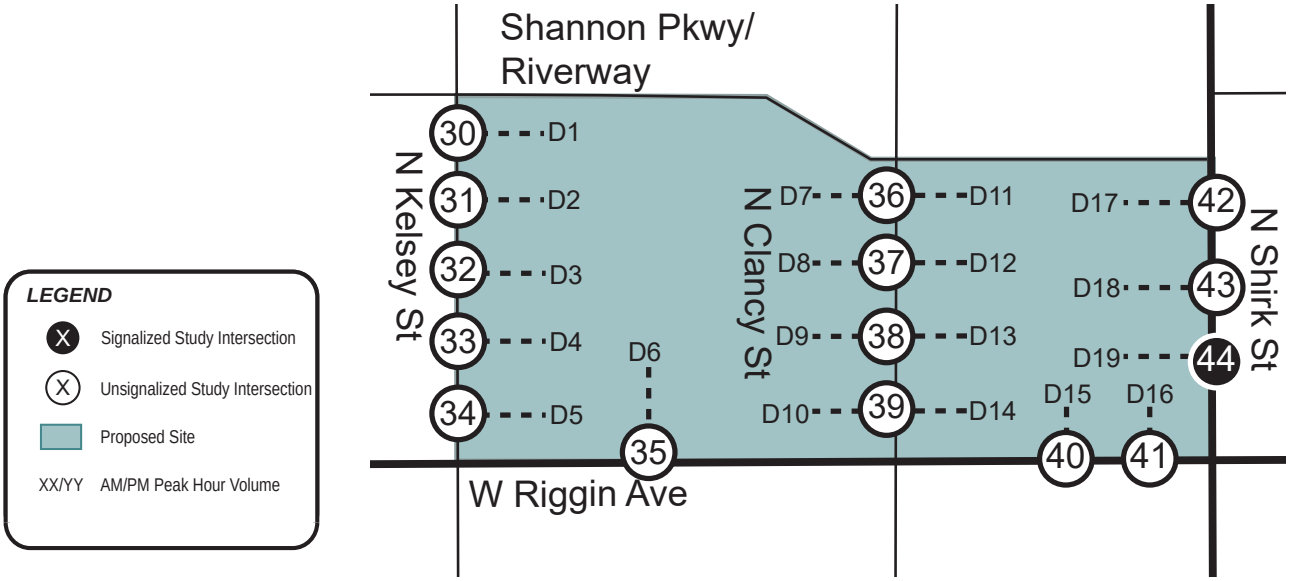
APPENDIX F NEAR-TERM (2025) PLUS PHASE 1 DRIVEWAY PEAK HOUR TURNING MOVEMENT VOLUMES

30 N Kelsey St 101 / 103 22 / 7 D1 6 / 22 10 / 33 156 / 191 33 / 10	**31** N Kelsey St 87 / 126 16 / 5 D2 5 / 16 5 / 16 182 / 177 16 / 5	**32** N Kelsey St 70 / 135 22 / 7 D3 6 / 22 13 / 43 192 / 160 44 / 13	**33** N Kelsey St 72 / 175 11 / 3 D4 3 / 11 5 / 16 233 / 163 16 / 5
34 N Kelsey St 60 / 186 16 / 5 D5 5 / 16 16 / 54 245 / 151 55 / 17	**35** Future D6 W Riggin Ave 568 / 514 361 / 642	**36** Future N Clancy St D7 24 / 81 82 / 25	**37** Future N Clancy St D8 24 / 81 24 / 81 82 / 25 82 / 25
38 Future N Clancy St 48 / 163 D9 8 / 27 27 / 8 164 / 50	**39** Future N Clancy St 56 / 190 D10 D14 31 / 103 104 / 32 192 / 58	**40** Future D15 W Riggin Ave 747 / 503 339 / 823	**41** Future D16 W Riggin Ave 747 / 503 339 / 823
42 N Shirk St 136 / 102 Future D17 93 / 168	**43** N Shirk St 127 / 100 5 / 17 Future D18/ Sedona Ave 4 / 19 69 / 315 Sedona Ave 89 / 149 85 / 283	**44** N Shirk St 220 / 529 7 / 18 Future D19 2 / 5 67 / 172 Costco Dwy 216 / 658 81 / 208	

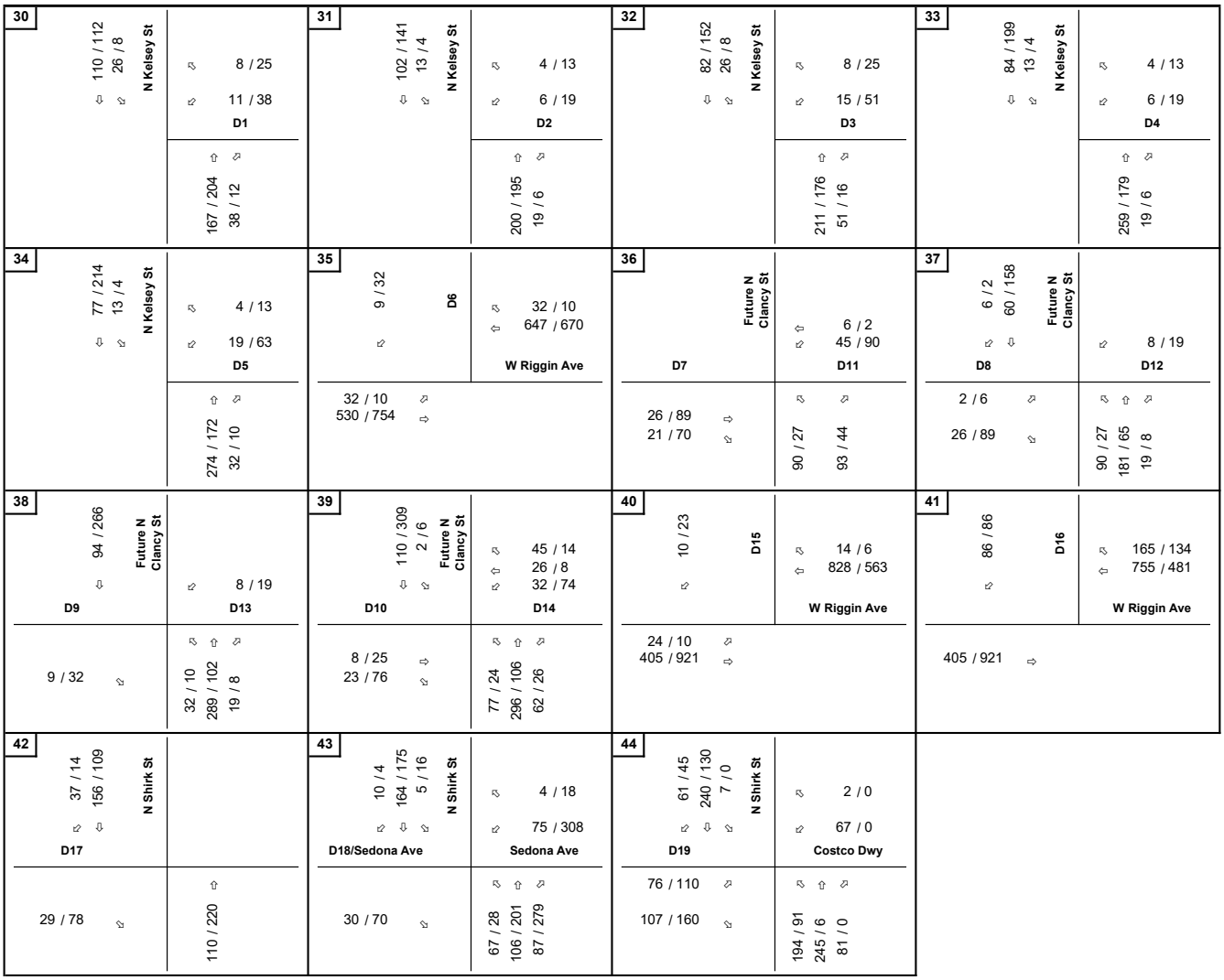


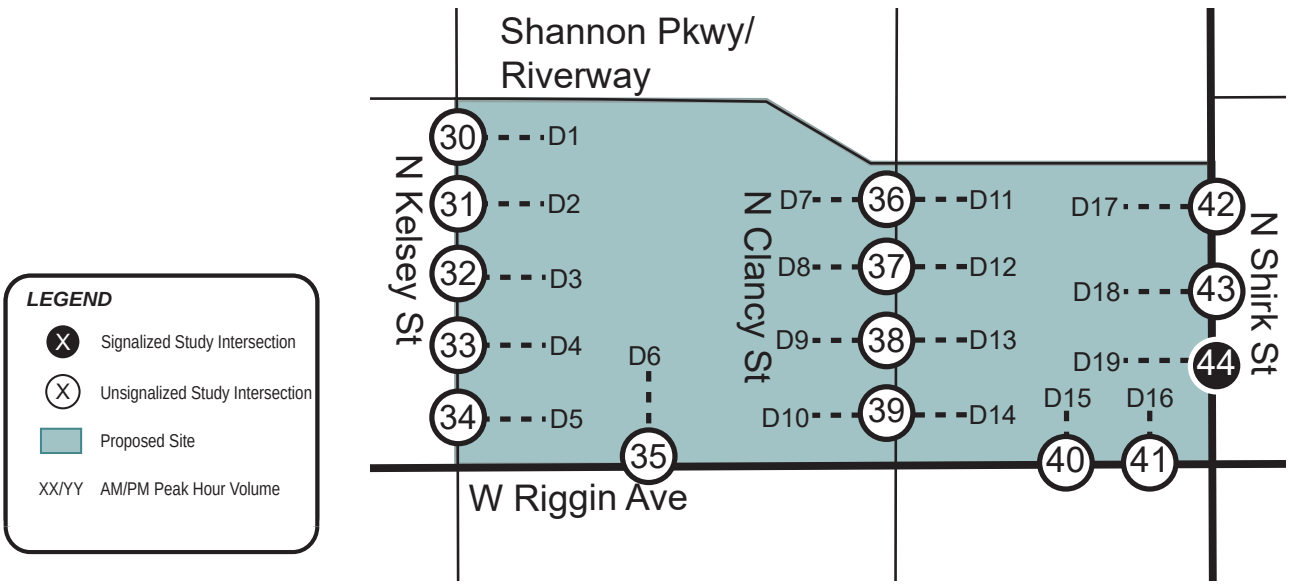
APPENDIX F NEAR-TERM (2026) PLUS PHASE 2 DRIVEWAY PEAK HOUR TURNING MOVEMENT VOLUMES

30 104 / 107 26 / 8 N Kelsey St 8 / 25 11 / 38 D1 161 / 195 38 / 12	**31** 96 / 136 13 / 4 N Kelsey St 4 / 13 6 / 19 D2 194 / 186 19 / 6	**32** 76 / 147 26 / 8 N Kelsey St 8 / 25 15 / 51 D3 205 / 167 51 / 16	**33** 78 / 194 13 / 4 N Kelsey St 4 / 13 6 / 19 D4 253 / 170 19 / 6
34 71 / 209 13 / 4 N Kelsey St 4 / 13 19 / 63 D5 268 / 163 32 / 10	**35** 9 / 32 D6 32 / 10 596 / 570 W Riggin Ave 32 / 10 431 / 699	**36** Future N Clancy St D7 28 / 47 D11 28 / 95 96 / 29 50 / 26	**37** 56 / 142 Future N Clancy St D8 8 / 13 D12 28 / 95 96 / 29 146 / 55 14 / 7
38 93 / 250 Future N Clancy St D9 8 / 13 D13 9 / 32 32 / 10 256 / 92 14 / 7	**39** 85 / 223 24 / 72 Future N Clancy St D10 73 / 25 19 / 6 32 / 54 D14 6 / 19 25 / 82 83 / 25 229 / 85 57 / 30	**40** Future D15 791 / 539 W Riggin Ave 378 / 864	**41** 84 / 78 D16 155 / 132 706 / 459 W Riggin Ave 378 / 864
42 162 / 108 N Shirk St Future D17 100 / 191	**43** 153 / 106 5 / 17 N Shirk St 4 / 19 69 / 315 Sedona Ave 96 / 172 85 / 283	**44** 83 / 55 163 / 480 7 / 18 N Shirk St 2 / 5 67 / 172 Costco Dwy D19 69 / 85 130 / 195 151 / 78 174 / 613 81 / 208	



APPENDIX F NEAR-TERM (2028) PLUS PROJECT BUILDOUT DRIVEWAY PEAK HOUR TURNING MOVEMENT VOLUMES





APPENDIX F LONG-TERM (2033) PLUS PROJECT BUILDOUT DRIVEWAY PEAK HOUR TURNING MOVEMENT VOLUMES

30

N Kelsey St: 227 / 315 ⇩ ; 26 / 8 ⇧

D1: 8 / 25 ⇗ ; 11 / 38 ⇖

N Kelsey St: 251 / 341 ⇧ ; 38 / 12 ⇗

31

N Kelsey St: 226 / 349 ⇩ ; 13 / 4 ⇧

D2: 4 / 13 ⇗ ; 6 / 19 ⇖

N Kelsey St: 286 / 340 ⇧ ; 19 / 6 ⇗

32

N Kelsey St: 206 / 360 ⇩ ; 26 / 8 ⇧

D3: 8 / 25 ⇗ ; 15 / 51 ⇖

N Kelsey St: 297 / 321 ⇧ ; 51 / 16 ⇗

33

N Kelsey St: 208 / 407 ⇩ ; 13 / 4 ⇧

D4: 4 / 13 ⇗ ; 6 / 19 ⇖

N Kelsey St: 345 / 324 ⇧ ; 19 / 6 ⇗

34

N Kelsey St: 201 / 422 ⇩ ; 13 / 4 ⇧

D5: 4 / 13 ⇗ ; 19 / 63 ⇖

N Kelsey St: 360 / 317 ⇧ ; 32 / 10 ⇗

35

D6: 9 / 32 ⇙

W Riggin Ave: 32 / 10 ⇗ ; 862 / 768 ⇧

W Riggin Ave: 32 / 10 ⇘ ; 675 / 919 ⇩

36

D7: Future N Clancy St

D11: 6 / 2 ⇧ ; 45 / 90 ⇖

D7: 26 / 89 ⇘ ; 21 / 70 ⇙

D11: 90 / 27 ⇖ ; 93 / 44 ⇗

37

D8: 6 / 2 ⇙ ; 60 / 158 ⇩ — Future N Clancy St

D12: 8 / 19 ⇖

D8: 2 / 6 ⇗ ; 26 / 89 ⇙

D12: 90 / 27 ⇖ ; 181 / 65 ⇧ ; 19 / 8 ⇗

38

D9: 94 / 266 ⇩ — Future N Clancy St

D13: 8 / 19 ⇗

D9: 9 / 32 ⇙

D13: 32 / 10 ⇖ ; 289 / 102 ⇧ ; 19 / 8 ⇗

39

D10: 110 / 309 ⇩ ; 2 / 6 ⇙ — Future N Clancy St

D14: 45 / 14 ⇗ ; 26 / 8 ⇧ ; 32 / 74 ⇖

D10: 8 / 25 ⇘ ; 23 / 76 ⇙

D14: 77 / 24 ⇖ ; 296 / 106 ⇧ ; 62 / 26 ⇗

40

D15: 10 / 23 ⇙

W Riggin Ave: 14 / 6 ⇧ ; 1065 / 697 ⇖

D15: 24 / 10 ⇘ ; 578 / 1163 ⇩

41

D16: 86 / 86 ⇙

W Riggin Ave: 165 / 134 ⇖ ; 992 / 615 ⇧

D16: 578 / 1163 ⇩

42

N Shirk St: 37 / 14 ⇧ ; 261 / 427 ⇩

D17

D17: 29 / 78 ⇙

N Shirk St: 227 / 720 ⇧

43

N Shirk St: 10 / 4 ⇧ ; 281 / 502 ⇩

D18/Sedona Ave

D18: 30 / 70 ⇙

Sedona Ave: 67 / 28 ⇗ ; 227 / 720 ⇧

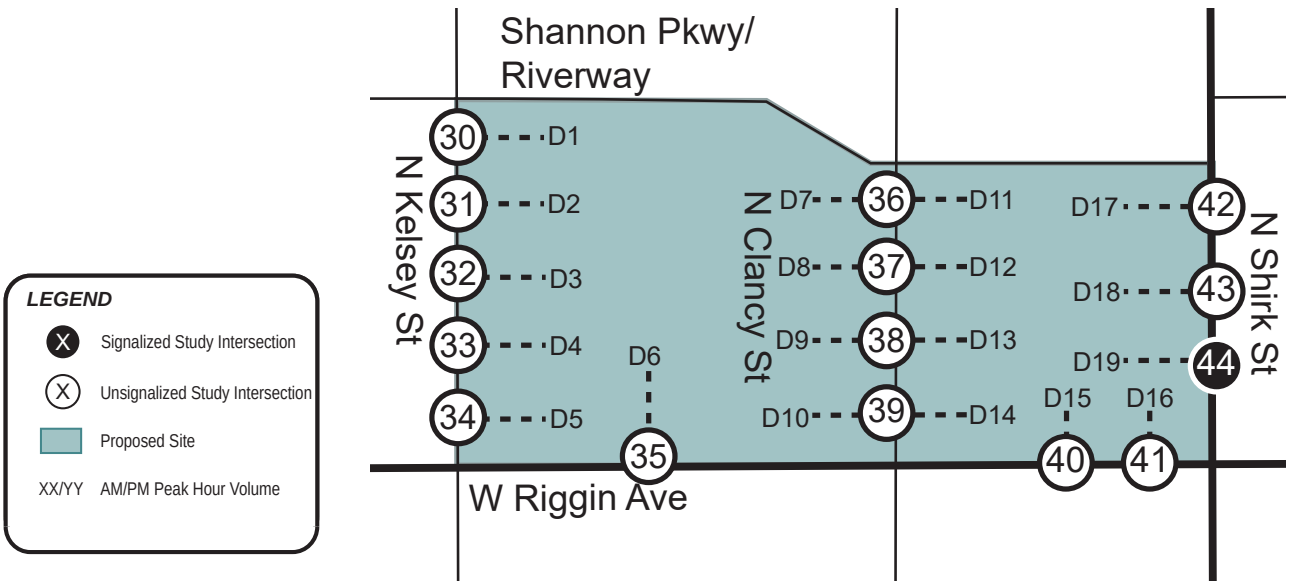
44

N Shirk St: 61 / 45 ⇧ ; 256 / 528 ⇩

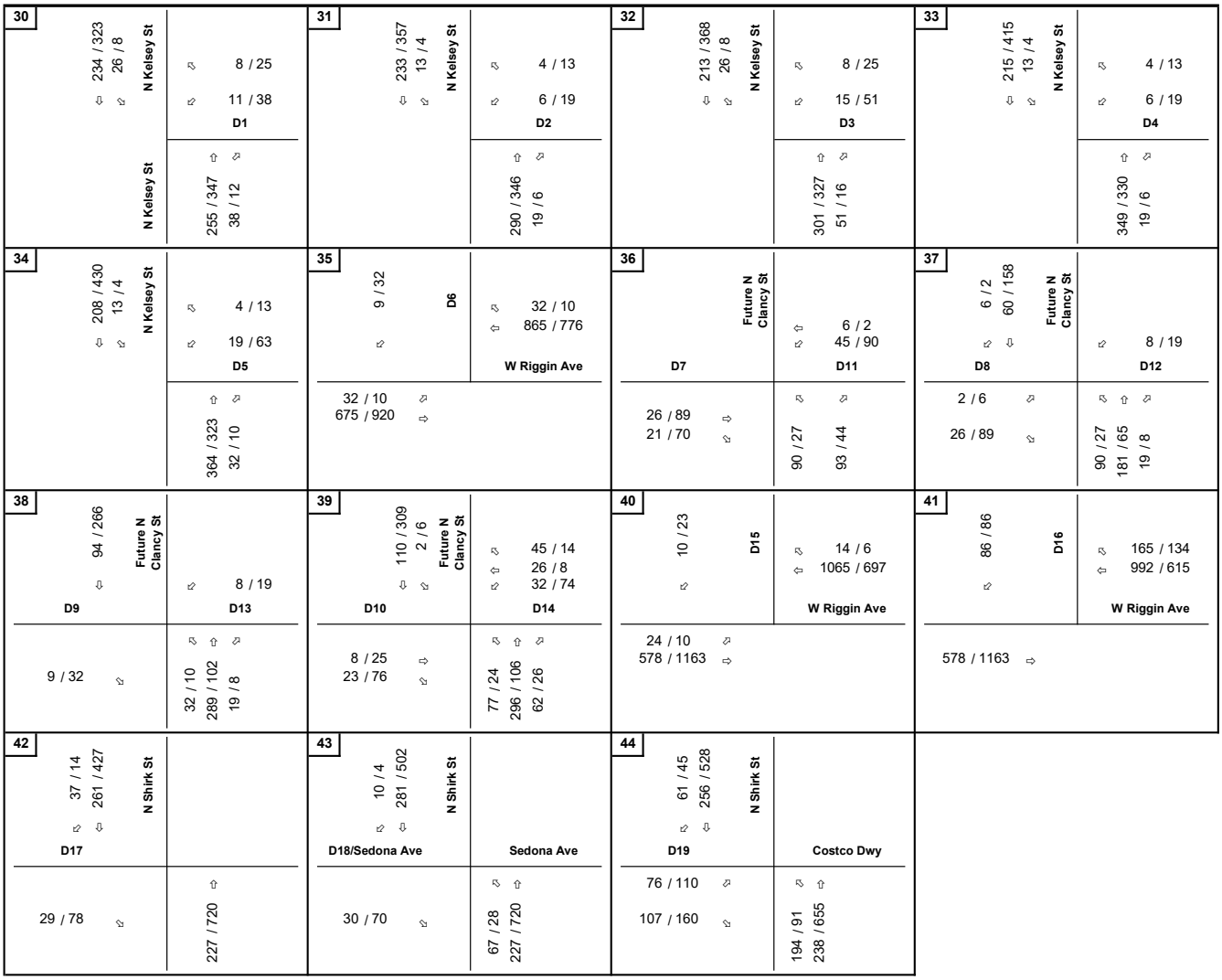
D19

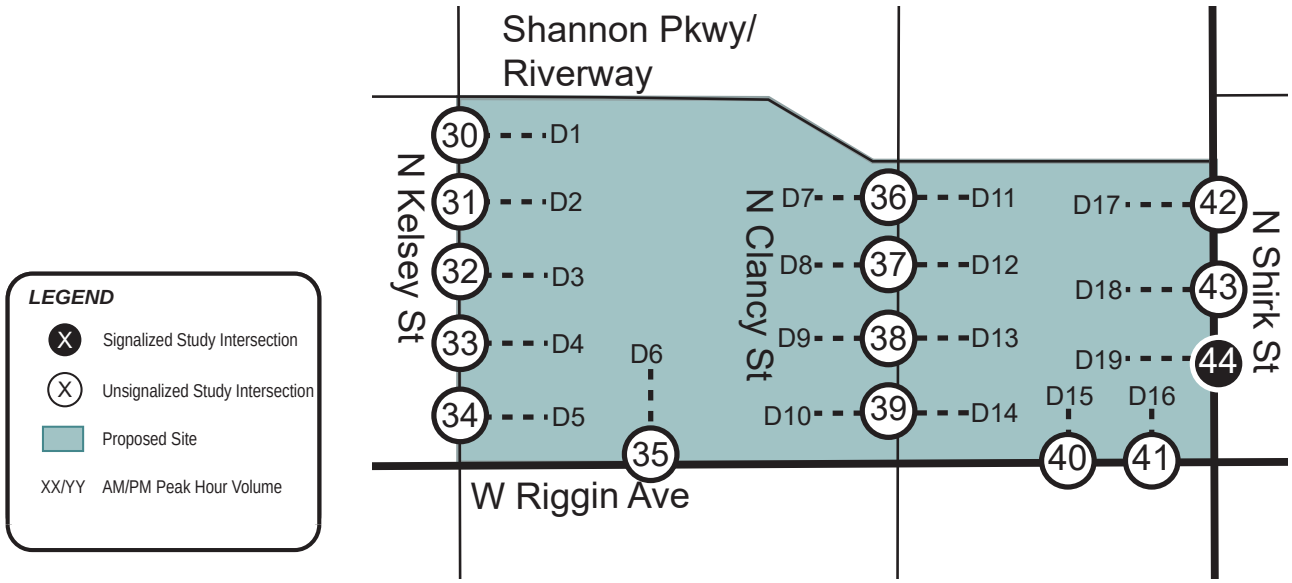
D19: 76 / 110 ⇘ ; 107 / 160 ⇙

Costco Dwy: 194 / 91 ⇗ ; 238 / 655 ⇧



APPENDIX F LONG-TERM (2038) PLUS PROJECT BUILDOUT DRIVEWAY PEAK HOUR TURNING MOVEMENT VOLUMES





APPENDIX F LONG-TERM (2048) PLUS PROJECT BUILDOUT DRIVEWAY PEAK HOUR TURNING MOVEMENT VOLUMES

30

N Kelsey St: 249 / 340 ⇩ | 26 / 8 ⇧

D1: 8 / 25 ⇩ | 11 / 38 ⇧

N Kelsey St: 263 / 363 ⇧ | 38 / 12 ⇩

31

N Kelsey St: 248 / 374 ⇩ | 13 / 4 ⇧

D2: 4 / 13 ⇩ | 6 / 19 ⇧

N Kelsey St: 298 / 362 ⇧ | 19 / 6 ⇩

32

N Kelsey St: 228 / 385 ⇩ | 26 / 8 ⇧

D3: 8 / 25 ⇩ | 15 / 51 ⇧

N Kelsey St: 309 / 343 ⇧ | 51 / 16 ⇩

33

N Kelsey St: 230 / 432 ⇩ | 13 / 4 ⇧

D4: 4 / 13 ⇩ | 6 / 19 ⇧

N Kelsey St: 357 / 346 ⇧ | 19 / 6 ⇩

34

N Kelsey St: 223 / 447 ⇩ | 13 / 4 ⇧

D5: 4 / 13 ⇩ | 19 / 63 ⇧

N Kelsey St: 372 / 339 ⇧ | 32 / 10 ⇩

35

D6: 9 / 32 ⇩

W Riggin Ave: 32 / 10 ⇩ | 896 / 800 ⇧

D6: 32 / 10 ⇩ | 686 / 948 ⇧

36

Future N Clancy St: D7

Future N Clancy St: 6 / 2 ⇧ | 45 / 90 ⇩

D7: 26 / 89 ⇩ | 21 / 70 ⇧

D11: 90 / 27 ⇧ | 93 / 44 ⇩

37

Future N Clancy St: 6 / 2 ⇩ | 60 / 158 ⇧

D8: 2 / 6 ⇩ | 26 / 89 ⇧

Future N Clancy St: D12

D12: 8 / 19 ⇩

D8: ⇩

D12: 90 / 27 ⇧ | 181 / 65 ⇧ | 19 / 8 ⇩

38

Future N Clancy St: 94 / 266 ⇩

D9: 9 / 32 ⇩

D13: 8 / 19 ⇩

D9: ⇩

D13: 32 / 10 ⇩ | 289 / 102 ⇧ | 19 / 8 ⇩

39

Future N Clancy St: 110 / 309 ⇩ | 2 / 6 ⇧

D10: 8 / 25 ⇩ | 23 / 76 ⇧

D14: 45 / 14 ⇩ | 26 / 8 ⇧ | 32 / 74 ⇩

D10: ⇩

D14: 77 / 24 ⇧ | 296 / 106 ⇧ | 62 / 26 ⇩

40

D15: 10 / 23 ⇩

W Riggin Ave: 14 / 6 ⇧ | 1090 / 707 ⇧

D15: 24 / 10 ⇩ | 585 / 1173 ⇩

41

D16: 86 / 86 ⇩

W Riggin Ave: 165 / 134 ⇩ | 1017 / 625 ⇩

D16: 585 / 1173 ⇩

42

N Shirk St: 37 / 14 ⇩ | 292 / 389 ⇧

D17: 29 / 78 ⇩

D17: 244 / 732 ⇧

43

N Shirk St: 10 / 4 ⇩ | 312 / 464 ⇧

D18/Sedona Ave: 30 / 70 ⇩

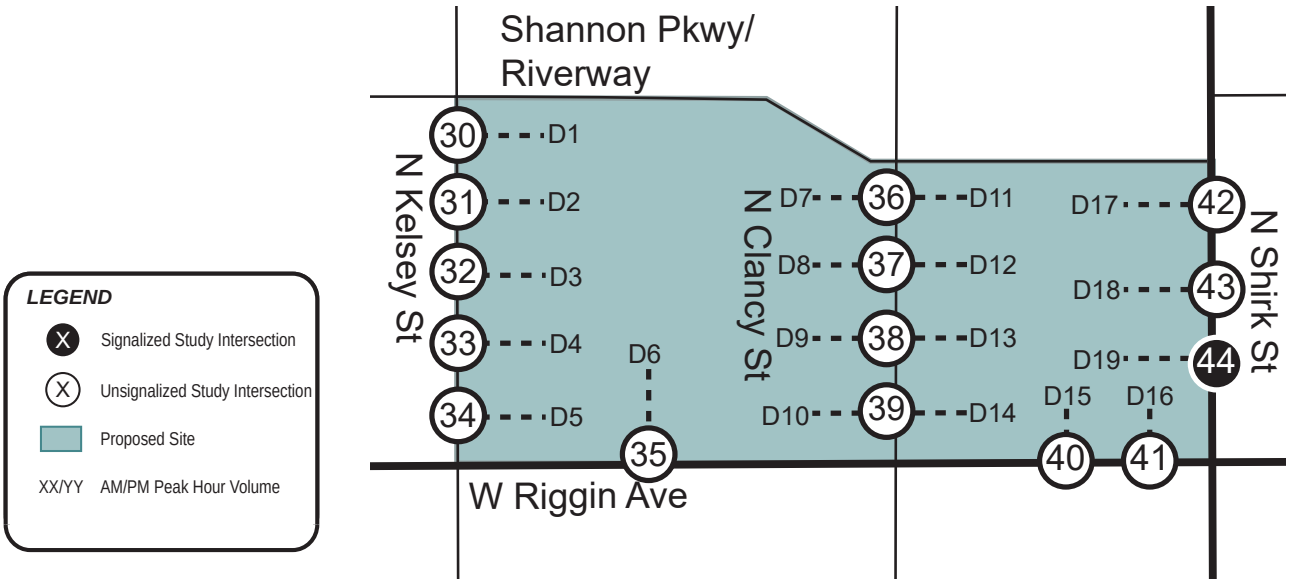
Sedona Ave: 67 / 28 ⇩ | 244 / 732 ⇧

44

N Shirk St: 61 / 45 ⇩ | 287 / 490 ⇧

D19: 76 / 110 ⇩ | 107 / 160 ⇩

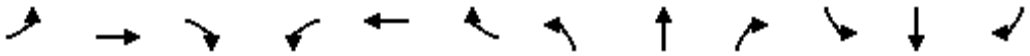
Costco Dwy: 194 / 91 ⇩ | 255 / 667 ⇧



G – Level of Service Calculation Sheets

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	38	561	14	568	17
v/c Ratio	0.07	0.28	0.15	0.27	0.04
Control Delay	9.4	9.7	53.4	7.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.4	9.7	53.4	7.0	0.2
Queue Length 50th (ft)	8	71	9	72	0
Queue Length 95th (ft)	28	135	31	95	0
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	521	1995	182	2494	388
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.07	0.28	0.08	0.23	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	521	7	13	534	0	4	0	12	0	0	0
Future Volume (veh/h)	35	521	7	13	534	0	4	0	12	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1678	1678	1678	1678	0	1678	1870	1678			
Adj Flow Rate, veh/h	38	554	7	14	568	0	4	0	13			
Peak Hour Factor	0.92	0.94	0.94	0.94	0.94	0.92	0.94	0.92	0.94			
Percent Heavy Veh, %	2	15	15	15	15	0	15	2	15			
Cap, veh/h	585	2021	26	25	2181	0	89	0	290			
Arrive On Green	0.63	0.63	0.63	0.02	0.68	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	843	3223	41	1598	3272	0	383	0	1244			
Grp Volume(v), veh/h	38	274	287	14	568	0	17	0	0			
Grp Sat Flow(s),veh/h/ln	843	1594	1670	1598	1594	0	1627	0	0			
Q Serve(g_s), s	2.0	8.4	8.5	1.0	7.5	0.0	0.9	0.0	0.0			
Cycle Q Clear(g_c), s	3.2	8.4	8.5	1.0	7.5	0.0	0.9	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.24		0.76			
Lane Grp Cap(c), veh/h	585	1000	1048	25	2181	0	380	0	0			
V/C Ratio(X)	0.06	0.27	0.27	0.55	0.26	0.00	0.04	0.00	0.00			
Avail Cap(c_a), veh/h	585	1000	1048	183	2495	0	380	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	8.4	9.2	9.2	53.4	6.6	0.0	32.4	0.0	0.0			
Incr Delay (d2), s/veh	0.2	0.7	0.6	17.5	0.1	0.0	0.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.3	2.6	2.7	0.5	1.9	0.0	0.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.7	9.8	9.8	70.9	6.7	0.0	32.7	0.0	0.0			
LnGrp LOS	A	A	A	E	A	A	C	A	A			
Approach Vol, veh/h		599			582			17				
Approach Delay, s/veh		9.8			8.2			32.7				
Approach LOS		A			A			C				
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.2	73.0				79.2		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.0	10.5				9.5		2.9				
Green Ext Time (p_c), s	0.0	3.3				3.7		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	5	0	31	3	86	0	409	33	55	561	1
Future Vol, veh/h	1	5	0	31	3	86	0	409	33	55	561	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	645	-	-	665	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	1	6	0	35	3	97	0	460	37	62	630	1

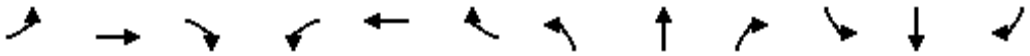
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	987	1252	316	921	1234	249	631	0	0	497	0	0
Stage 1	755	755	-	479	479	-	-	-	-	-	-	-
Stage 2	232	497	-	442	755	-	-	-	-	-	-	-
Critical Hdwy	7.7	6.7	7.1	7.7	6.7	7.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.7	5.7	-	6.7	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.7	-	6.7	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.6	4.1	3.4	3.6	4.1	3.4	2.3	-	-	2.3	-	-
Pot Cap-1 Maneuver	191	160	657	213	164	727	895	-	-	1009	-	-
Stage 1	349	396	-	516	534	-	-	-	-	-	-	-
Stage 2	728	523	-	543	396	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	155	150	657	197	154	727	895	-	-	1009	-	-
Mov Cap-2 Maneuver	155	150	-	197	154	-	-	-	-	-	-	-
Stage 1	349	372	-	516	534	-	-	-	-	-	-	-
Stage 2	627	523	-	502	372	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30	18.2	0	0.8
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	895	-	-	151	407	1009	-	-
HCM Lane V/C Ratio	-	-	-	0.045	0.331	0.061	-	-
HCM Control Delay (s)	0	-	-	30	18.2	8.8	-	-
HCM Lane LOS	A	-	-	D	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.4	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	160	268	112	76	342	42	68	317	54	42	602
v/c Ratio	0.67	0.20	0.17	0.45	0.31	0.08	0.42	0.36	0.12	0.31	0.78
Control Delay	55.5	23.3	6.1	53.2	28.0	0.3	53.1	30.1	1.8	52.3	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	23.3	6.1	53.2	28.0	0.3	53.1	30.1	1.8	52.3	38.9
Queue Length 50th (ft)	96	60	0	46	86	0	41	86	0	26	167
Queue Length 95th (ft)	185	114	41	101	152	0	94	136	8	66	253
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	323	1333	661	323	1090	550	323	1105	556	323	1079
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.20	0.17	0.24	0.31	0.08	0.21	0.29	0.10	0.13	0.56

Intersection Summary



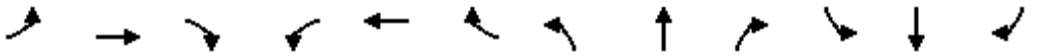
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	249	104	71	318	39	63	295	50	39	378	182
Future Volume (veh/h)	149	249	104	71	318	39	63	295	50	39	378	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	160	268	112	76	342	42	68	317	54	42	406	196
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	194	1404	626	96	1208	539	85	822	367	60	506	241
Arrive On Green	0.12	0.44	0.44	0.06	0.38	0.38	0.05	0.26	0.26	0.04	0.24	0.24
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2112	1007
Grp Volume(v), veh/h	160	268	112	76	342	42	68	317	54	42	308	294
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1511
Q Serve(g_s), s	8.3	4.4	4.1	4.0	6.3	1.6	3.6	6.9	2.5	2.2	15.3	15.6
Cycle Q Clear(g_c), s	8.3	4.4	4.1	4.0	6.3	1.6	3.6	6.9	2.5	2.2	15.3	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	194	1404	626	96	1208	539	85	822	367	60	385	362
V/C Ratio(X)	0.82	0.19	0.18	0.79	0.28	0.08	0.80	0.39	0.15	0.70	0.80	0.81
Avail Cap(c_a), veh/h	360	1404	626	360	1208	539	360	1208	539	360	604	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	14.7	14.7	39.5	18.6	17.1	39.9	26.2	24.5	40.6	30.5	30.6
Incr Delay (d2), s/veh	8.5	0.3	0.6	13.5	0.6	0.3	15.2	0.3	0.2	14.1	4.1	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.4	1.2	1.8	2.2	0.5	1.7	2.4	0.8	1.0	5.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	15.1	15.3	53.1	19.2	17.4	55.1	26.5	24.7	54.6	34.6	35.5
LnGrp LOS	D	B	B	D	B	B	E	C	C	D	C	D
Approach Vol, veh/h		540			460			439			644	
Approach Delay, s/veh		24.0			24.6			30.7			36.3	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	41.7	9.0	24.9	14.8	36.5	7.6	26.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	32.0	19.0	32.0	19.0	32.0	19.0	32.0
Max Q Clear Time (g_c+I1), s	6.0	6.4	5.6	17.6	10.3	8.3	4.2	8.9
Green Ext Time (p_c), s	0.1	1.8	0.1	2.8	0.2	2.0	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	16	27	8	78	534	8	4	630	29
v/c Ratio	0.14	0.03	0.07	0.44	0.45	0.01	0.04	0.75	0.06
Control Delay	49.2	0.1	49.1	49.5	22.4	0.0	48.8	37.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.2	0.1	49.1	49.5	22.4	0.0	48.8	37.5	0.2
Queue Length 50th (ft)	8	0	4	40	99	0	2	162	0
Queue Length 95th (ft)	34	0	22	101	197	0	14	270	0
Internal Link Dist (ft)					1421			2552	
Turn Bay Length (ft)	115	100	120	215		110	305		110
Base Capacity (vph)	140	882	121	289	1849	867	121	1513	748
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.03	0.07	0.27	0.29	0.01	0.03	0.42	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	24	7	0	0	69	475	7	4	561	26
Future Volume (veh/h)	14	0	24	7	0	0	69	475	7	4	561	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	16	0	27	8	0	0	78	534	8	4	630	29
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	30	1515	676	16	1487	663	98	989	441	9	810	361
Arrive On Green	0.02	0.00	0.47	0.01	0.00	0.00	0.06	0.30	0.30	0.01	0.25	0.25
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	16	0	27	8	0	0	78	534	8	4	630	29
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	0.8	0.0	0.9	0.4	0.0	0.0	4.0	11.6	0.3	0.2	15.3	1.3
Cycle Q Clear(g_c), s	0.8	0.0	0.9	0.4	0.0	0.0	4.0	11.6	0.3	0.2	15.3	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	30	1515	676	16	1487	663	98	989	441	9	810	361
V/C Ratio(X)	0.53	0.00	0.04	0.49	0.00	0.00	0.79	0.54	0.02	0.46	0.78	0.08
Avail Cap(c_a), veh/h	144	1515	676	125	1487	663	298	1898	847	125	1553	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	12.2	41.7	0.0	0.0	39.2	24.5	20.6	42.0	29.6	24.3
Incr Delay (d2), s/veh	13.7	0.0	0.1	20.5	0.0	0.0	13.2	0.5	0.0	34.2	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.3	0.3	0.0	0.0	1.8	4.0	0.1	0.2	5.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	0.0	12.4	62.1	0.0	0.0	52.4	24.9	20.6	76.1	31.2	24.4
LnGrp LOS	D	A	B	E	A	A	D	C	C	E	C	C
Approach Vol, veh/h		43			8			620			663	
Approach Delay, s/veh		28.2			62.1			28.3			31.2	
Approach LOS		C			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	44.0	9.6	25.6	6.1	43.3	4.9	30.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	2.4	2.9	6.0	17.3	2.8	0.0	2.2	13.6
Green Ext Time (p_c), s	0.0	0.1	0.1	3.8	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

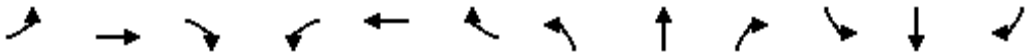
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	565	18	5	594
Future Vol, veh/h	1	1	565	18	5	594
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	12	12	12	12	12	12
Mvmt Flow	1	1	657	21	6	691

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1026	339	0	0	678	0
Stage 1	668	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	7.04	7.14	-	-	4.34	-
Critical Hdwy Stg 1	6.04	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.62	3.42	-	-	2.32	-
Pot Cap-1 Maneuver	214	629	-	-	846	-
Stage 1	445	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	211	629	-	-	846	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	641	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.2
HCM LOS	B		

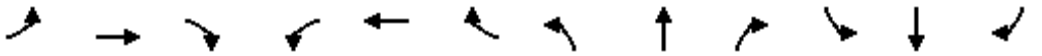
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	434	846	-
HCM Lane V/C Ratio	-	-	0.005	0.007	-
HCM Control Delay (s)	-	-	13.3	9.3	0.1
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	162	197	61	130	92	174	532	69	119	482	44
v/c Ratio	0.25	0.12	0.28	0.53	0.09	0.13	0.71	0.70	0.16	0.61	0.73	0.15
Control Delay	56.3	23.5	4.8	68.2	22.6	3.6	60.6	43.1	2.2	60.8	47.6	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	23.5	4.8	68.2	22.6	3.6	60.6	43.1	2.2	60.8	47.6	37.7
Queue Length 50th (ft)	19	38	0	42	30	0	116	181	0	80	168	26
Queue Length 95th (ft)	51	70	50	#104	58	25	204	245	10	150	232	59
Internal Link Dist (ft)		2580			2522			1494			265	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	135	1319	709	122	1397	690	309	1389	687	247	1265	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.12	0.28	0.50	0.09	0.13	0.56	0.38	0.10	0.48	0.38	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	151	183	57	121	86	162	495	64	111	448	41
Future Volume (veh/h)	26	151	183	57	121	86	162	495	64	111	448	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	28	162	197	61	130	92	174	532	69	119	482	44
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	46	1413	630	77	1475	658	207	744	332	147	625	279
Arrive On Green	0.03	0.42	0.42	0.05	0.44	0.44	0.12	0.22	0.22	0.09	0.19	0.19
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	28	162	197	61	130	92	174	532	69	119	482	44
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	1.6	2.9	8.6	3.5	2.2	3.6	9.9	14.4	3.7	6.8	13.4	2.4
Cycle Q Clear(g_c), s	1.6	2.9	8.6	3.5	2.2	3.6	9.9	14.4	3.7	6.8	13.4	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	1413	630	77	1475	658	207	744	332	147	625	279
V/C Ratio(X)	0.61	0.11	0.31	0.79	0.09	0.14	0.84	0.72	0.21	0.81	0.77	0.16
Avail Cap(c_a), veh/h	146	1413	630	132	1475	658	333	1488	664	266	1354	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	17.3	19.0	46.4	16.0	16.4	42.1	35.3	31.2	44.0	37.9	33.5
Incr Delay (d2), s/veh	12.5	0.2	1.3	16.4	0.1	0.4	10.2	1.3	0.3	9.9	2.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.1	2.9	1.8	0.8	1.2	4.5	5.6	1.3	3.1	5.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	17.5	20.2	62.8	16.2	16.9	52.3	36.6	31.5	53.9	40.0	33.7
LnGrp LOS	E	B	C	E	B	B	D	D	C	D	D	C
Approach Vol, veh/h		387			283			775			645	
Approach Delay, s/veh		21.9			26.4			39.7			42.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	46.8	17.6	23.8	8.2	48.6	14.1	27.2
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	7.7	41.3	19.4	39.6	8.5	40.5	15.5	43.5
Max Q Clear Time (g_c+I1), s	5.5	10.6	11.9	15.4	3.6	5.6	8.8	16.4
Green Ext Time (p_c), s	0.0	1.5	0.2	2.9	0.0	1.0	0.1	3.5

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	1	0	46	0	0	10	0
Future Vol, veh/h	0	0	0	1	0	1	0	46	0	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	1	0	1	0	50	0	0	11	0

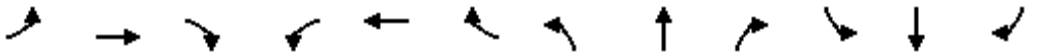
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	9	4	1	29	4	1
Stage 1	-	-	-	-	-	-	1	1	-	3	3	-
Stage 2	-	-	-	-	-	-	8	3	-	26	1	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1622	-	-	1622	-	-	1010	891	1084	980	891	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1020	893	-
Stage 2	-	-	-	-	-	-	1013	893	-	992	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1000	890	1084	937	890	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1000	890	-	937	890	-
Stage 1	-	-	-	-	-	-	1022	895	-	1020	892	-
Stage 2	-	-	-	-	-	-	1000	892	-	937	895	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.6	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	890	1622	-	-	1622	-	-	890
HCM Lane V/C Ratio	0.056	-	-	-	0.001	-	-	0.012
HCM Control Delay (s)	9.3	0	-	-	7.2	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBT
Lane Group Flow (vph)	61	285	20	14	416	36	21
v/c Ratio	0.15	0.10	0.01	0.04	0.16	0.03	0.06
Control Delay	12.0	3.3	1.2	12.8	5.1	2.7	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	3.3	1.2	12.8	5.1	2.7	2.6
Queue Length 50th (ft)	7	0	0	2	0	0	0
Queue Length 95th (ft)	33	41	3	13	64	10	6
Internal Link Dist (ft)		2540			612		234
Turn Bay Length (ft)	310		300	315		155	
Base Capacity (vph)	1528	3384	1515	1528	3384	1515	1591
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.08	0.01	0.01	0.12	0.02	0.01

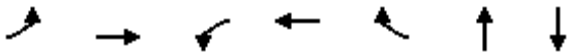
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	268	19	13	391	34	0	0	0	4	0	16
Future Volume (veh/h)	57	268	19	13	391	34	0	0	0	4	0	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	61	285	20	14	416	36	0	0	0	4	0	17
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	122	1211	540	32	1032	460	0	50	0	199	0	33
Arrive On Green	0.07	0.35	0.35	0.02	0.30	0.30	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	0	1811	0	286	0	1215
Grp Volume(v), veh/h	61	285	20	14	416	36	0	0	0	21	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	0	1811	0	1501	0	0
Q Serve(g_s), s	0.8	1.3	0.2	0.2	2.2	0.4	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.8	1.3	0.2	0.2	2.2	0.4	0.0	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		0.00	0.19		0.81
Lane Grp Cap(c), veh/h	122	1211	540	32	1032	460	0	50	0	232	0	0
V/C Ratio(X)	0.50	0.24	0.04	0.44	0.40	0.08	0.00	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	2077	6062	2704	2077	6062	2704	0	3231	0	2869	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.0	5.1	4.8	10.9	6.2	5.6	0.0	0.0	0.0	10.8	0.0	0.0
Incr Delay (d2), s/veh	3.2	0.1	0.0	9.0	0.3	0.1	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	5.2	4.8	19.9	6.5	5.7	0.0	0.0	0.0	10.9	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	B	A	A
Approach Vol, veh/h		366			466			0			21	
Approach Delay, s/veh		6.5			6.8			0.0			10.9	
Approach LOS		A			A						B	

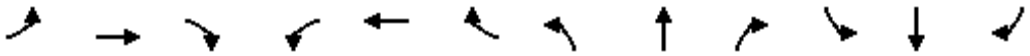
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	12.4		5.1	6.1	11.2		5.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.2	3.3		2.3	2.8	4.2		0.0				
Green Ext Time (p_c), s	0.0	1.7		0.1	0.1	2.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			6.8									
HCM 6th LOS			A									



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	83	312	71	301	111	179	166
v/c Ratio	0.25	0.29	0.21	0.33	0.23	0.39	0.42
Control Delay	25.2	16.6	25.0	18.9	5.9	20.1	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	16.6	25.0	18.9	5.9	20.1	20.9
Queue Length 50th (ft)	25	44	21	43	0	46	42
Queue Length 95th (ft)	61	74	55	74	25	93	88
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	619	2127	945	2628	1200	1243	1061
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.15	0.08	0.11	0.09	0.14	0.16

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	229	21	57	241	89	8	101	34	46	50	36
Future Volume (veh/h)	66	229	21	57	241	89	8	101	34	46	50	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	82	286	26	71	301	111	10	126	42	58	62	45
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	242	816	74	222	841	375	92	277	88	188	167	93
Arrive On Green	0.14	0.26	0.26	0.13	0.25	0.25	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1711	3166	286	1711	3413	1522	39	1265	403	375	764	427
Grp Volume(v), veh/h	82	153	159	71	301	111	178	0	0	165	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1745	1711	1706	1522	1706	0	0	1565	0	0
Q Serve(g_s), s	2.0	3.3	3.4	1.7	3.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.0	3.3	3.4	1.7	3.3	2.7	4.1	0.0	0.0	3.8	0.0	0.0
Prop In Lane	1.00		0.16	1.00		1.00	0.06		0.24	0.35		0.27
Lane Grp Cap(c), veh/h	242	440	450	222	841	375	456	0	0	449	0	0
V/C Ratio(X)	0.34	0.35	0.35	0.32	0.36	0.30	0.39	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	711	1231	1259	1085	3208	1431	1559	0	0	1400	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	13.8	13.9	18.1	14.2	14.0	15.6	0.0	0.0	15.4	0.0	0.0
Incr Delay (d2), s/veh	0.8	1.7	1.7	0.8	0.9	1.6	2.0	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.1	1.2	0.6	1.0	0.8	1.6	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	15.5	15.6	18.9	15.2	15.6	17.5	0.0	0.0	17.3	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		394			483			178			165	
Approach Delay, s/veh		16.2			15.8			17.5			17.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	18.8		17.0	10.5	18.3		17.0				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	3.7	5.4		6.1	4.0	5.3		5.8				
Green Ext Time (p_c), s	0.1	4.0		2.6	0.1	5.9		2.4				

Intersection Summary			
HCM 6th Ctrl Delay		16.4	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	1	0	0	7	0	2	3	0
Future Vol, veh/h	0	0	0	0	1	0	0	7	0	2	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1	0	0	8	0	2	3	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	4	2	1	6	2	1
Stage 1	-	-	-	-	-	-	1	1	-	1	1	-
Stage 2	-	-	-	-	-	-	3	1	-	5	1	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1622	-	-	1622	-	-	1017	894	1084	1014	894	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1020	895	-	1017	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1014	894	1084	1008	894	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1014	894	-	1008	894	-
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1016	895	-	1008	895	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.1	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	894	1622	-	-	1622	-	-	936
HCM Lane V/C Ratio	0.009	-	-	-	-	-	-	0.006
HCM Control Delay (s)	9.1	0	-	-	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	225	0	0	413	0	0	0	0	0	0	0
Future Vol, veh/h	0	225	0	0	413	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	250	0	0	459	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	459	0	0	250	0	0	709	709	250	709	709	459
Stage 1	-	-	-	-	-	-	250	250	-	459	459	-
Stage 2	-	-	-	-	-	-	459	459	-	250	250	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1066	-	-	1276	-	-	340	351	772	340	351	588
Stage 1	-	-	-	-	-	-	739	687	-	569	555	-
Stage 2	-	-	-	-	-	-	569	555	-	739	687	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1066	-	-	1276	-	-	340	351	772	340	351	588
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	351	-	340	351	-
Stage 1	-	-	-	-	-	-	739	687	-	569	555	-
Stage 2	-	-	-	-	-	-	569	555	-	739	687	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1066	-	-	1276	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	55	28	21	85	3	16	26	3	1	54	2
Future Vol, veh/h	1	55	28	21	85	3	16	26	3	1	54	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	76	39	29	118	4	22	36	4	1	75	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	122	0	0	115	0	0	315	278	96	296	295	120
Stage 1	-	-	-	-	-	-	98	98	-	178	178	-
Stage 2	-	-	-	-	-	-	217	180	-	118	117	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.18	6.58	6.28	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.18	5.58	-
Follow-up Hdwy	2.272	-	-	2.272	-	-	3.572	4.072	3.372	3.572	4.072	3.372
Pot Cap-1 Maneuver	1429	-	-	1437	-	-	626	620	944	644	606	916
Stage 1	-	-	-	-	-	-	894	802	-	810	741	-
Stage 2	-	-	-	-	-	-	772	739	-	872	787	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1437	-	-	554	606	944	601	592	916
Mov Cap-2 Maneuver	-	-	-	-	-	-	554	606	-	601	592	-
Stage 1	-	-	-	-	-	-	893	801	-	809	725	-
Stage 2	-	-	-	-	-	-	675	723	-	828	786	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	11.7	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	600	1429	-	-	1437	-	-	600
HCM Lane V/C Ratio	0.104	0.001	-	-	0.02	-	-	0.132
HCM Control Delay (s)	11.7	7.5	0	-	7.6	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	0	51	95	0
Future Vol, veh/h	1	0	0	51	95	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	0	55	103	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	158	103	103	0	-	0
Stage 1	103	-	-	-	-	-
Stage 2	55	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	833	952	1489	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	833	952	1489	-	-	-
Mov Cap-2 Maneuver	833	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	968	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1489	-	833	-	-
HCM Lane V/C Ratio	-	-	0.001	-	-
HCM Control Delay (s)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	215	71	79	339	3	100	43	32	7	95	5
Future Vol, veh/h	4	215	71	79	339	3	100	43	32	7	95	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	4	239	79	88	377	3	111	48	36	8	106	6
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	14.9	22.8	13	12
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	70%	0%	1%	19%	7%
Vol Thru, %	30%	0%	74%	81%	89%
Vol Right, %	0%	100%	24%	1%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	143	32	290	421	107
LT Vol	100	0	4	79	7
Through Vol	43	0	215	339	95
RT Vol	0	32	71	3	5
Lane Flow Rate	159	36	322	468	119
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.33	0.063	0.52	0.732	0.228
Departure Headway (Hd)	7.475	6.4	5.815	5.744	6.904
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	483	561	625	632	521
Service Time	5.196	4.121	3.815	3.744	4.93
HCM Lane V/C Ratio	0.329	0.064	0.515	0.741	0.228
HCM Control Delay	13.8	9.6	14.9	22.8	12
HCM Lane LOS	B	A	B	C	B
HCM 95th-tile Q	1.4	0.2	3	6.3	0.9

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	22	123	20	52	57	113	55	48	221	24
Future Vol, veh/h	5	2	22	123	20	52	57	113	55	48	221	24
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	6	3	28	158	26	67	73	145	71	62	283	31
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	9.4	11.5	12.3	14.6
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	17%	100%	0%	16%
Vol Thru, %	50%	7%	0%	28%	75%
Vol Right, %	24%	76%	0%	72%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	225	29	123	72	293
LT Vol	57	5	123	0	48
Through Vol	113	2	0	20	221
RT Vol	55	22	0	52	24
Lane Flow Rate	288	37	158	92	376
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.427	0.062	0.302	0.151	0.551
Departure Headway (Hd)	5.331	5.971	6.898	5.876	5.282
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	675	598	520	610	684
Service Time	3.371	4.029	4.64	3.617	3.319
HCM Lane V/C Ratio	0.427	0.062	0.304	0.151	0.55
HCM Control Delay	12.3	9.4	12.6	9.7	14.6
HCM Lane LOS	B	A	B	A	B
HCM 95th-tile Q	2.1	0.2	1.3	0.5	3.4

Intersection	
Intersection Delay, s/veh	33.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	2	38	190	25	6	167	196	41	2	236	104
Future Vol, veh/h	23	2	38	190	25	6	167	196	41	2	236	104
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	28	2	46	229	30	7	201	236	49	2	284	125
Number of Lanes	1	1	0	1	1	1	0	1	0	0	1	0

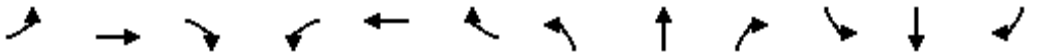
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	2
HCM Control Delay	12.4	18.4	49.3	28
HCM LOS	B	C	E	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	41%	100%	0%	100%	0%	0%	1%
Vol Thru, %	49%	0%	5%	0%	100%	0%	69%
Vol Right, %	10%	0%	95%	0%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	404	23	40	190	25	6	342
LT Vol	167	23	0	190	0	0	2
Through Vol	196	0	2	0	25	0	236
RT Vol	41	0	38	0	0	6	104
Lane Flow Rate	487	28	48	229	30	7	412
Geometry Grp	7	8	8	7	7	7	7
Degree of Util (X)	0.927	0.073	0.11	0.523	0.064	0.014	0.764
Departure Headway (Hd)	6.853	9.447	8.222	8.223	7.706	6.982	6.678
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	531	378	434	437	464	511	540
Service Time	4.604	7.232	6.006	5.984	5.466	4.742	4.434
HCM Lane V/C Ratio	0.917	0.074	0.111	0.524	0.065	0.014	0.763
HCM Control Delay	49.3	13	12	19.7	11	9.8	28
HCM Lane LOS	E	B	B	C	B	A	D
HCM 95th-tile Q	11.3	0.2	0.4	3	0.2	0	6.8

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	325	90	265	89	177	447	111	52	460	73
v/c Ratio	0.25	0.27	0.71	0.20	0.13	0.74	0.67	0.18	0.40	0.89	0.17
Control Delay	58.2	15.0	82.5	26.6	1.6	66.8	36.1	7.5	61.1	59.0	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	15.0	82.5	26.6	1.6	66.8	36.1	7.5	61.1	59.0	31.4
Queue Length 50th (ft)	21	46	69	76	0	130	278	8	39	326	40
Queue Length 95th (ft)	48	73	#136	106	4	191	359	38	74	414	73
Internal Link Dist (ft)		5186		5169			1972			1396	
Turn Bay Length (ft)	270		270		205	260		100	95		60
Base Capacity (vph)	140	1189	130	1342	683	284	728	675	162	599	509
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.27	0.69	0.20	0.13	0.62	0.61	0.16	0.32	0.77	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	136	134	75	220	74	147	371	92	43	382	61
Future Volume (veh/h)	23	136	134	75	220	74	147	371	92	43	382	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	28	164	161	90	265	89	177	447	111	52	460	73
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	46	628	561	113	1390	620	209	662	561	67	513	435
Arrive On Green	0.03	0.36	0.36	0.07	0.40	0.40	0.12	0.36	0.36	0.04	0.28	0.28
Sat Flow, veh/h	1739	1735	1547	1739	3469	1547	1739	1826	1547	1739	1826	1547
Grp Volume(v), veh/h	28	164	161	90	265	89	177	447	111	52	460	73
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1826	1547	1739	1826	1547
Q Serve(g_s), s	1.7	7.0	7.8	5.4	5.2	3.8	10.5	21.7	5.2	3.1	25.4	3.7
Cycle Q Clear(g_c), s	1.7	7.0	7.8	5.4	5.2	3.8	10.5	21.7	5.2	3.1	25.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	628	561	113	1390	620	209	662	561	67	513	435
V/C Ratio(X)	0.61	0.26	0.29	0.79	0.19	0.14	0.85	0.67	0.20	0.78	0.90	0.17
Avail Cap(c_a), veh/h	151	628	561	141	1390	620	307	782	662	176	644	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	23.6	23.8	48.3	20.4	20.0	45.2	28.2	22.9	50.0	36.3	28.5
Incr Delay (d2), s/veh	12.1	1.0	1.3	21.6	0.3	0.5	13.4	1.8	0.2	17.8	13.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.8	2.8	2.9	2.0	1.4	5.2	9.3	1.8	1.6	12.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	24.6	25.1	69.9	20.7	20.5	58.6	30.0	23.1	67.8	49.4	28.7
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	C
Approach Vol, veh/h		353			444			735			585	
Approach Delay, s/veh		27.8			30.6			35.9			48.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	42.5	17.1	34.0	7.3	46.5	8.5	42.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	7.4	9.8	12.5	27.4	3.7	7.2	5.1	23.7
Green Ext Time (p_c), s	0.0	1.7	0.2	2.1	0.0	1.7	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	53	630	34	20	361
v/c Ratio	0.12	0.10	1.01	0.06	0.05	0.33
Control Delay	28.9	7.9	79.9	15.2	37.0	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	7.9	79.9	15.2	37.0	13.2
Queue Length 50th (ft)	37	0	~500	7	12	132
Queue Length 95th (ft)	71	29	#741	30	34	190
Internal Link Dist (ft)	759		1603			557
Turn Bay Length (ft)	200			195	200	
Base Capacity (vph)	582	556	621	541	398	1110
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.10	1.01	0.06	0.05	0.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	63	49	580	31	18	332
Future Volume (veh/h)	63	49	580	31	18	332
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	53	630	34	20	361
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	586	522	623	528	401	1114
Arrive On Green	0.33	0.33	0.33	0.33	0.22	0.60
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	68	53	630	34	20	361
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	3.2	2.8	40.0	1.8	1.1	11.6
Cycle Q Clear(g_c), s	3.2	2.8	40.0	1.8	1.1	11.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	586	522	623	528	401	1114
V/C Ratio(X)	0.12	0.10	1.01	0.06	0.05	0.32
Avail Cap(c_a), veh/h	586	522	623	528	401	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	27.9	40.0	27.3	36.4	12.1
Incr Delay (d2), s/veh	0.4	0.4	38.7	0.1	0.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.0	24.8	0.7	0.5	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.5	28.3	78.7	27.3	36.7	12.9
LnGrp LOS	C	C	F	C	D	B
Approach Vol, veh/h	121		664			381
Approach Delay, s/veh	28.4		76.0			14.2
Approach LOS	C		E			B

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	76.0	44.0	31.5	44.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	71.5	39.5	27.0	40.0
Max Q Clear Time (g_c+I1), s	13.6	5.2	3.1	42.0
Green Ext Time (p_c), s	2.5	0.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	250	7	78	420	14	77
Future Vol, veh/h	250	7	78	420	14	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	284	8	89	477	16	88

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	292	0	943	288
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	655	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1270	-	291	751
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	517	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1270	-	263	751
Mov Cap-2 Maneuver	-	-	-	-	263	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	468	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	584	-	-	1270	-
HCM Lane V/C Ratio	0.177	-	-	0.07	-
HCM Control Delay (s)	12.5	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	78	2	39	155	8	2	9	41	24	6	14
Future Vol, veh/h	9	78	2	39	155	8	2	9	41	24	6	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	85	2	42	168	9	2	10	45	26	7	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	87	0	0	374	367	86	391	364	173
Stage 1	-	-	-	-	-	-	106	106	-	257	257	-
Stage 2	-	-	-	-	-	-	268	261	-	134	107	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1399	-	-	1509	-	-	583	562	973	568	564	871
Stage 1	-	-	-	-	-	-	900	807	-	748	695	-
Stage 2	-	-	-	-	-	-	738	692	-	869	807	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1399	-	-	1509	-	-	553	542	973	520	544	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	553	542	-	520	544	-
Stage 1	-	-	-	-	-	-	894	801	-	743	676	-
Stage 2	-	-	-	-	-	-	698	673	-	813	801	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.4	9.6	11.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	553	851	1399	-	-	1509	-	-	601
HCM Lane V/C Ratio	0.004	0.064	0.007	-	-	0.028	-	-	0.08
HCM Control Delay (s)	11.5	9.5	7.6	-	-	7.5	-	-	11.5
HCM Lane LOS	B	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	14	9	25	59	1	18	1	18	0	0	0
Future Vol, veh/h	0	14	9	25	59	1	18	1	18	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	10	27	64	1	20	1	20	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	25	0	0	139	139	20	150	144	65
Stage 1	-	-	-	-	-	-	20	20	-	119	119	-
Stage 2	-	-	-	-	-	-	119	119	-	31	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1589	-	-	831	752	1058	818	747	999
Stage 1	-	-	-	-	-	-	999	879	-	885	797	-
Stage 2	-	-	-	-	-	-	885	797	-	986	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1589	-	-	819	738	1058	791	734	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	819	738	-	791	734	-
Stage 1	-	-	-	-	-	-	999	879	-	885	783	-
Stage 2	-	-	-	-	-	-	869	783	-	967	874	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.1	9.1	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	917	1537	-	-	1589	-	-	-
HCM Lane V/C Ratio	0.044	-	-	-	0.017	-	-	-
HCM Control Delay (s)	9.1	0	-	-	7.3	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-

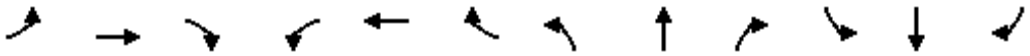
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	41	0	0	39	0
Future Vol, veh/h	0	0	0	0	0	0	0	41	0	0	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	45	0	0	42	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	87	87	42	87	87	45	42	0	0	45	0	0
Stage 1	42	42	-	45	45	-	-	-	-	-	-	-
Stage 2	45	45	-	42	42	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	899	803	1029	899	803	1025	1567	-	-	1563	-	-
Stage 1	972	860	-	969	857	-	-	-	-	-	-	-
Stage 2	969	857	-	972	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	899	803	1029	899	803	1025	1567	-	-	1563	-	-
Mov Cap-2 Maneuver	899	803	-	899	803	-	-	-	-	-	-	-
Stage 1	972	860	-	969	857	-	-	-	-	-	-	-
Stage 2	969	857	-	972	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

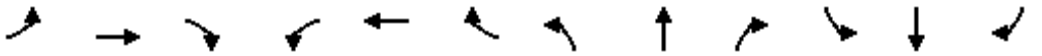
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1567	-	-	-	-	1563	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	153	235	32	220	470	192	41	285	175	173	344	119
v/c Ratio	0.79	0.35	0.05	0.83	0.63	0.26	0.37	0.76	0.38	0.82	0.32	0.21
Control Delay	76.2	28.3	0.1	71.8	31.5	4.4	60.2	54.0	7.7	77.0	31.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.2	28.3	0.1	71.8	31.5	4.4	60.2	54.0	7.7	77.0	31.1	6.4
Queue Length 50th (ft)	104	117	0	148	254	0	28	187	0	118	103	0
Queue Length 95th (ft)	#187	177	0	#244	347	29	59	237	34	#210	124	29
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	197	674	659	272	748	751	118	590	621	212	1310	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.35	0.05	0.81	0.63	0.26	0.35	0.48	0.28	0.82	0.26	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	186	25	174	371	152	32	225	138	137	272	94
Future Volume (veh/h)	121	186	25	174	371	152	32	225	138	137	272	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	235	32	220	470	192	41	285	175	173	344	119
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	717	608	252	789	669	60	345	292	204	943	421
Arrive On Green	0.10	0.38	0.38	0.14	0.42	0.42	0.03	0.18	0.18	0.11	0.27	0.27
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	153	235	32	220	470	192	41	285	175	173	344	119
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	8.6	9.1	1.3	12.4	19.8	8.1	2.3	15.0	10.3	9.7	8.0	6.1
Cycle Q Clear(g_c), s	8.6	9.1	1.3	12.4	19.8	8.1	2.3	15.0	10.3	9.7	8.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	717	608	252	789	669	60	345	292	204	943	421
V/C Ratio(X)	0.83	0.33	0.05	0.87	0.60	0.29	0.68	0.83	0.60	0.85	0.36	0.28
Avail Cap(c_a), veh/h	209	717	608	288	789	669	126	622	527	225	1381	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	22.2	19.8	43.0	22.8	19.4	48.8	40.1	38.2	44.4	30.5	29.8
Incr Delay (d2), s/veh	22.0	1.2	0.2	22.3	3.3	1.1	12.9	5.0	2.0	23.5	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.9	0.5	6.7	8.5	3.0	1.2	7.1	4.0	5.5	3.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	23.4	20.0	65.2	26.1	20.5	61.7	45.1	40.1	67.8	30.8	30.2
LnGrp LOS	E	C	B	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		420			882			501			636	
Approach Delay, s/veh		39.0			34.7			44.7			40.7	
Approach LOS		D			C			D			D	

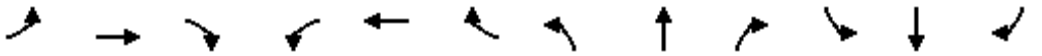
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	43.7	7.9	31.6	15.0	47.6	16.2	23.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	14.4	11.1	4.3	10.0	10.6	21.8	11.7	17.0
Green Ext Time (p_c), s	0.1	1.2	0.0	2.5	0.0	3.0	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	381	263	224	145	350	124	43	644
v/c Ratio	0.49	0.64	0.83	0.28	0.74	0.58	0.21	0.50	0.76
Control Delay	65.4	30.1	68.3	22.2	73.8	39.0	5.0	75.9	47.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.4	30.1	68.3	22.2	73.8	39.0	5.0	75.9	47.5
Queue Length 50th (ft)	50	181	194	105	109	231	0	33	243
Queue Length 95th (ft)	93	271	#280	158	#183	315	32	#74	296
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	156	597	358	793	215	602	603	86	852
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.64	0.73	0.28	0.67	0.58	0.21	0.50	0.76

Intersection Summary

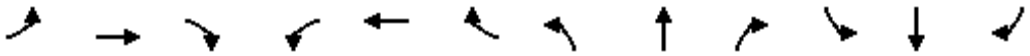
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	90	237	226	148	45	125	301	107	37	490	64
Future Volume (veh/h)	57	90	237	226	148	45	125	301	107	37	490	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	105	276	263	172	52	145	350	124	43	570	74
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	146	384	294	603	182	174	604	511	58	816	106
Arrive On Green	0.05	0.32	0.32	0.17	0.44	0.44	0.10	0.32	0.32	0.03	0.26	0.26
Sat Flow, veh/h	1781	456	1199	1781	1379	417	1781	1870	1585	1781	3164	410
Grp Volume(v), veh/h	66	0	381	263	0	224	145	350	124	43	319	325
Grp Sat Flow(s),veh/h/ln	1781	0	1655	1781	0	1795	1781	1870	1585	1781	1777	1797
Q Serve(g_s), s	4.1	0.0	23.0	16.4	0.0	9.1	9.0	17.6	6.5	2.7	18.4	18.5
Cycle Q Clear(g_c), s	4.1	0.0	23.0	16.4	0.0	9.1	9.0	17.6	6.5	2.7	18.4	18.5
Prop In Lane	1.00		0.72	1.00		0.23	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	85	0	530	294	0	786	174	604	511	58	458	464
V/C Ratio(X)	0.78	0.00	0.72	0.89	0.00	0.29	0.84	0.58	0.24	0.74	0.70	0.70
Avail Cap(c_a), veh/h	162	0	530	372	0	786	224	604	511	90	458	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	0.0	34.0	46.2	0.0	20.4	50.1	31.9	28.1	54.2	38.0	38.0
Incr Delay (d2), s/veh	13.9	0.0	8.2	19.7	0.0	0.9	18.8	4.0	1.1	16.4	8.5	8.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	10.0	8.6	0.0	3.8	4.8	8.3	2.5	1.4	8.8	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	0.0	42.1	65.9	0.0	21.3	69.0	35.9	29.3	70.6	46.5	46.5
LnGrp LOS	E	A	D	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		447			487			619			687	
Approach Delay, s/veh		45.8			45.4			42.3			48.0	
Approach LOS		D			D			D			D	

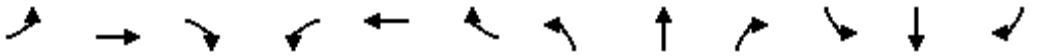
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	40.7	15.5	33.7	9.9	54.0	8.2	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	18.4	25.0	11.0	20.5	6.1	11.1	4.7	19.6
Green Ext Time (p_c), s	0.3	1.7	0.1	2.1	0.0	1.2	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	195	43	174	208	128	231	486	169	313	767	73
v/c Ratio	0.35	0.19	0.08	0.73	0.15	0.18	0.79	0.63	0.37	0.84	0.82	0.18
Control Delay	73.6	38.8	0.3	75.4	30.2	6.1	73.3	51.5	13.2	70.5	54.2	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.6	38.8	0.3	75.4	30.2	6.1	73.3	51.5	13.2	70.5	54.2	40.0
Queue Length 50th (ft)	33	67	0	148	63	0	195	204	19	263	332	49
Queue Length 95th (ft)	74	112	0	235	104	41	294	268	76	376	409	92
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	135	1049	569	307	1376	694	390	984	543	499	1203	538
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.19	0.08	0.57	0.15	0.18	0.59	0.49	0.31	0.63	0.64	0.14

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	168	37	150	179	110	199	418	145	269	660	63
Future Volume (veh/h)	33	168	37	150	179	110	199	418	145	269	660	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	195	43	174	208	128	231	486	169	313	767	73
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	1167	520	204	1467	654	263	756	337	347	924	412
Arrive On Green	0.03	0.33	0.33	0.11	0.41	0.41	0.15	0.21	0.21	0.19	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	195	43	174	208	128	231	486	169	313	767	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.5	4.7	2.3	11.5	4.4	6.2	15.3	15.0	11.3	20.6	24.5	4.3
Cycle Q Clear(g_c), s	2.5	4.7	2.3	11.5	4.4	6.2	15.3	15.0	11.3	20.6	24.5	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	53	1167	520	204	1467	654	263	756	337	347	924	412
V/C Ratio(X)	0.71	0.17	0.08	0.85	0.14	0.20	0.88	0.64	0.50	0.90	0.83	0.18
Avail Cap(c_a), veh/h	147	1167	520	334	1467	654	423	1065	475	541	1302	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	28.7	27.9	52.2	22.0	22.5	50.2	43.1	41.7	47.3	42.0	34.5
Incr Delay (d2), s/veh	16.1	0.3	0.3	11.0	0.2	0.7	11.9	0.9	1.2	12.7	3.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.9	0.9	5.5	1.8	2.4	7.5	6.5	4.4	10.1	10.8	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	29.0	28.2	63.2	22.2	23.2	62.0	44.0	42.8	60.0	45.2	34.7
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	C
Approach Vol, veh/h		276			510			886			1153	
Approach Delay, s/veh		35.0			36.5			48.5			48.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	43.9	22.2	35.7	8.1	54.1	27.9	30.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	37.0	28.5	44.0	9.9	49.6	36.5	36.0
Max Q Clear Time (g_c+I1), s	13.5	6.7	17.3	26.5	4.5	8.2	22.6	17.0
Green Ext Time (p_c), s	0.3	1.2	0.5	4.8	0.0	1.6	0.8	3.3

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	52	0	0	95
Future Vol, veh/h	0	0	52	0	0	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	57	0	0	103

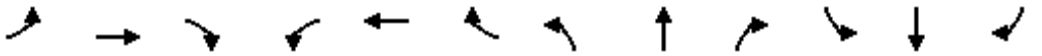
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	160	57	0	0	57	0
Stage 1	57	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	831	1009	-	-	1547	-
Stage 1	966	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	831	1009	-	-	1547	-
Mov Cap-2 Maneuver	831	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1547	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	39	628	24	483	32
v/c Ratio	0.10	0.46	0.20	0.32	0.05
Control Delay	19.4	21.6	46.4	15.6	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	21.6	46.4	15.6	2.4
Queue Length 50th (ft)	12	122	13	89	0
Queue Length 95th (ft)	39	214	41	122	9
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	375	1364	466	2454	682
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.46	0.05	0.20	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	575	3	22	444	0	10	0	19	0	0	0
Future Volume (veh/h)	36	575	3	22	444	0	10	0	19	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1722	1722	1722	1722	0	1722	1870	1722			
Adj Flow Rate, veh/h	39	625	3	24	483	0	11	0	21			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	12	12	12	12	0	12	2	12			
Cap, veh/h	438	1383	7	40	1591	0	238	0	454			
Arrive On Green	0.41	0.41	0.41	0.02	0.49	0.00	0.42	0.00	0.42			
Sat Flow, veh/h	912	3339	16	1640	3358	0	566	0	1081			
Grp Volume(v), veh/h	39	306	322	24	483	0	32	0	0			
Grp Sat Flow(s),veh/h/ln	912	1636	1719	1640	1636	0	1647	0	0			
Q Serve(g_s), s	2.6	12.9	12.9	1.4	8.5	0.0	1.1	0.0	0.0			
Cycle Q Clear(g_c), s	4.2	12.9	12.9	1.4	8.5	0.0	1.1	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.34		0.66			
Lane Grp Cap(c), veh/h	438	678	712	40	1591	0	691	0	0			
V/C Ratio(X)	0.09	0.45	0.45	0.59	0.30	0.00	0.05	0.00	0.00			
Avail Cap(c_a), veh/h	438	678	712	464	1591	0	691	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	18.1	20.1	20.1	46.0	14.8	0.0	16.4	0.0	0.0			
Incr Delay (d2), s/veh	0.4	2.2	2.1	13.1	0.1	0.0	0.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.5	4.7	5.0	0.7	2.7	0.0	0.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	22.3	22.2	59.1	14.9	0.0	16.5	0.0	0.0			
LnGrp LOS	B	C	C	E	B	A	B	A	A			
Approach Vol, veh/h		667			507			32				
Approach Delay, s/veh		22.0			17.0			16.5				
Approach LOS		C			B			B				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.9	44.0				50.9		44.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5				39.5		40.0				
Max Q Clear Time (g_c+I1), s	3.4	14.9				10.5		3.1				
Green Ext Time (p_c), s	0.0	3.5				2.9		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			19.8									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	4	1	15	4	36	0	645	27	60	448	0
Future Vol, veh/h	1	4	1	15	4	36	0	645	27	60	448	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	645	-	-	665	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	1	5	1	17	5	41	0	733	31	68	509	0

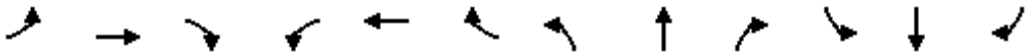
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1014	1409	255	1142	1394	382	509	0	0	764	0	0
Stage 1	645	645	-	749	749	-	-	-	-	-	-	-
Stage 2	369	764	-	393	645	-	-	-	-	-	-	-
Critical Hdwy	7.62	6.62	7.02	7.62	6.62	7.02	4.22	-	-	4.22	-	-
Critical Hdwy Stg 1	6.62	5.62	-	6.62	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.62	5.62	-	6.62	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.56	4.06	3.36	3.56	4.06	3.36	2.26	-	-	2.26	-	-
Pot Cap-1 Maneuver	187	133	732	150	136	605	1025	-	-	819	-	-
Stage 1	418	456	-	361	408	-	-	-	-	-	-	-
Stage 2	612	401	-	592	456	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	159	122	732	136	125	605	1025	-	-	819	-	-
Mov Cap-2 Maneuver	159	122	-	136	125	-	-	-	-	-	-	-
Stage 1	418	418	-	361	408	-	-	-	-	-	-	-
Stage 2	564	401	-	536	418	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.5	22.1	0	1.2
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1025	-	-	148	273	819	-	-
HCM Lane V/C Ratio	-	-	-	0.046	0.229	0.083	-	-
HCM Control Delay (s)	0	-	-	30.5	22.1	9.8	-	-
HCM Lane LOS	A	-	-	D	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	197	343	77	61	247	83	78	535	66	41	461
v/c Ratio	0.64	0.26	0.11	0.35	0.26	0.16	0.41	0.62	0.14	0.27	0.63
Control Delay	43.5	21.4	0.7	44.8	28.0	1.9	45.0	31.8	3.5	44.7	30.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	21.4	0.7	44.8	28.0	1.9	45.0	31.8	3.5	44.7	30.0
Queue Length 50th (ft)	98	67	0	31	54	0	39	136	0	21	97
Queue Length 95th (ft)	192	131	4	80	113	9	96	221	18	60	173
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	560	1323	672	560	940	517	425	1617	771	238	1226
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.26	0.11	0.11	0.26	0.16	0.18	0.33	0.09	0.17	0.38

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	329	74	59	237	80	75	514	63	39	288	155
Future Volume (veh/h)	189	329	74	59	237	80	75	514	63	39	288	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	197	343	77	61	247	83	78	535	66	41	300	161
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	243	1410	629	82	1089	486	99	748	334	65	431	226
Arrive On Green	0.15	0.43	0.43	0.05	0.33	0.33	0.06	0.23	0.23	0.04	0.21	0.21
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	2094	1096
Grp Volume(v), veh/h	197	343	77	61	247	83	78	535	66	41	235	226
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1540
Q Serve(g_s), s	8.1	4.6	2.2	2.5	3.8	2.8	3.3	10.5	2.5	1.7	9.2	9.6
Cycle Q Clear(g_c), s	8.1	4.6	2.2	2.5	3.8	2.8	3.3	10.5	2.5	1.7	9.2	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	243	1410	629	82	1089	486	99	748	334	65	340	317
V/C Ratio(X)	0.81	0.24	0.12	0.74	0.23	0.17	0.79	0.72	0.20	0.63	0.69	0.71
Avail Cap(c_a), veh/h	650	1410	629	650	1089	486	494	1871	835	276	719	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	12.8	12.1	32.8	17.0	16.7	32.5	25.0	21.9	33.1	25.7	25.9
Incr Delay (d2), s/veh	6.3	0.4	0.4	12.4	0.5	0.8	12.7	1.3	0.3	9.7	2.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.4	0.6	1.2	1.3	0.9	1.5	3.7	0.8	0.8	3.4	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	13.2	12.5	45.2	17.5	17.4	45.2	26.3	22.2	42.8	28.3	28.9
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		617			391			679			502	
Approach Delay, s/veh		20.2			21.8			28.1			29.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	34.4	8.7	18.9	14.8	27.6	7.2	20.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	4.5	6.6	5.3	11.6	10.1	5.8	3.7	12.5
Green Ext Time (p_c), s	0.1	1.9	0.1	2.2	0.5	1.4	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	1	49	29	9	22	606	17	3	509	11
v/c Ratio	0.20	0.00	0.06	0.22	0.01	0.16	0.66	0.04	0.02	0.62	0.02
Control Delay	43.1	17.0	0.1	44.4	0.0	41.9	28.6	0.1	42.3	30.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	17.0	0.1	44.4	0.0	41.9	28.6	0.1	42.3	30.5	0.1
Queue Length 50th (ft)	11	0	0	12	0	9	115	0	1	93	0
Queue Length 95th (ft)	46	2	0	48	0	38	235	0	11	201	0
Internal Link Dist (ft)		205					1421			2552	
Turn Bay Length (ft)	115		100	120	105	215		110	305		110
Base Capacity (vph)	161	1698	824	139	903	333	2128	984	139	1741	841
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.00	0.06	0.21	0.01	0.07	0.28	0.02	0.02	0.29	0.01

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1	48	28	0	9	22	594	17	3	499	11
Future Volume (veh/h)	27	1	48	28	0	9	22	594	17	3	499	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	28	1	49	29	0	9	22	606	17	3	509	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	48	1621	723	49	1623	724	40	802	358	7	736	328
Arrive On Green	0.03	0.50	0.50	0.03	0.00	0.50	0.02	0.25	0.25	0.00	0.22	0.22
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	28	1	49	29	0	9	22	606	17	3	509	11
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	1.3	0.0	1.4	1.4	0.0	0.2	1.1	13.7	0.7	0.1	11.4	0.5
Cycle Q Clear(g_c), s	1.3	0.0	1.4	1.4	0.0	0.2	1.1	13.7	0.7	0.1	11.4	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1621	723	49	1623	724	40	802	358	7	736	328
V/C Ratio(X)	0.59	0.00	0.07	0.59	0.00	0.01	0.55	0.76	0.05	0.45	0.69	0.03
Avail Cap(c_a), veh/h	154	1621	723	134	1623	724	319	2031	906	134	1662	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	10.2	10.5	38.2	0.0	10.2	38.5	27.9	23.0	39.6	28.4	24.1
Incr Delay (d2), s/veh	11.1	0.0	0.2	11.0	0.0	0.0	11.5	1.5	0.1	41.8	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.4	0.7	0.0	0.1	0.5	4.9	0.2	0.1	4.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	10.2	10.7	49.3	0.0	10.2	50.0	29.4	23.0	81.4	29.5	24.2
LnGrp LOS	D	B	B	D	A	B	D	C	C	F	C	C
Approach Vol, veh/h		78			38			645			523	
Approach Delay, s/veh		24.5			40.0			29.9			29.7	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	44.0	6.4	22.4	6.8	44.1	4.8	24.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	3.4	3.4	3.1	13.4	3.3	2.2	2.1	15.7
Green Ext Time (p_c), s	0.0	0.1	0.0	3.0	0.0	0.0	0.0	3.9

Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

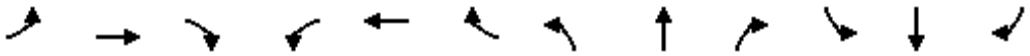
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	3	610	3	1	649
Future Vol, veh/h	6	3	610	3	1	649
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	7	4	753	4	1	801

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1158	379	0	0	757	0
Stage 1	755	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	7.02	7.12	-	-	4.32	-
Critical Hdwy Stg 1	6.02	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.61	3.41	-	-	2.31	-
Pot Cap-1 Maneuver	176	594	-	-	793	-
Stage 1	402	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	176	594	-	-	793	-
Mov Cap-2 Maneuver	297	-	-	-	-	-
Stage 1	402	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	0
HCM LOS	C		

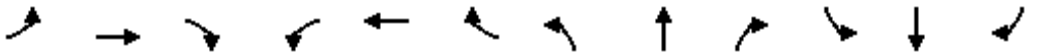
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	793	-
HCM Lane V/C Ratio	-	-	0.031	0.002	-
HCM Control Delay (s)	-	-	15.4	9.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	224	844	80	146	105	139	526	61	118	503	32
v/c Ratio	0.50	0.14	0.96	0.74	0.09	0.14	0.81	0.74	0.16	0.76	0.74	0.11
Control Delay	57.6	15.4	39.7	86.6	16.7	4.2	80.3	44.4	3.2	77.0	45.4	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	15.4	39.7	86.6	16.7	4.2	80.3	44.4	3.2	77.0	45.4	33.2
Queue Length 50th (ft)	47	40	374	53	27	0	91	171	0	77	164	17
Queue Length 95th (ft)	99	71	0	#144	53	32	#214	229	14	#185	221	43
Internal Link Dist (ft)		2580			2522			1494			265	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	178	1616	880	108	1602	770	171	1246	616	155	1215	543
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.14	0.96	0.74	0.09	0.14	0.81	0.42	0.10	0.76	0.41	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	211	211	75	137	99	131	494	57	111	473	30
Future Volume (veh/h)	70	211	211	75	137	99	131	494	57	111	473	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	74	224	844	80	146	105	139	526	61	118	503	32
Peak Hour Factor	0.94	0.94	0.25	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	94	1703	760	100	1717	766	167	688	307	144	643	287
Arrive On Green	0.06	0.51	0.51	0.06	0.52	0.52	0.10	0.21	0.21	0.09	0.19	0.19
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	74	224	844	80	146	105	139	526	61	118	503	32
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	4.3	3.5	50.8	4.7	2.2	3.7	8.1	14.8	3.4	6.9	14.3	1.8
Cycle Q Clear(g_c), s	4.3	3.5	50.8	4.7	2.2	3.7	8.1	14.8	3.4	6.9	14.3	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	1703	760	100	1717	766	167	688	307	144	643	287
V/C Ratio(X)	0.79	0.13	1.11	0.80	0.09	0.14	0.83	0.76	0.20	0.82	0.78	0.11
Avail Cap(c_a), veh/h	188	1703	760	114	1717	766	182	1314	586	165	1281	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	12.7	24.2	46.1	12.2	12.5	43.9	37.1	32.6	44.6	38.1	33.0
Incr Delay (d2), s/veh	13.7	0.2	67.4	28.6	0.1	0.4	25.5	1.8	0.3	24.1	2.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.2	29.3	2.7	0.8	1.2	4.4	5.8	1.2	3.7	5.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	12.8	91.7	74.7	12.3	12.9	69.4	38.9	32.9	68.7	40.2	33.2
LnGrp LOS	E	B	F	E	B	B	E	D	C	E	D	C
Approach Vol, veh/h		1142			331			726			653	
Approach Delay, s/veh		74.2			27.6			44.2			45.0	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	54.1	13.3	22.5	9.0	54.5	12.0	23.8
Change Period (Y+Rc), s	* 3.4	* 3.3	* 3.4	* 3.3	* 3.4	* 3.3	* 3.4	* 3.3
Max Green Setting (Gmax), s	* 6.8	* 51	* 11	* 38	* 11	* 46	* 9.8	* 39
Max Q Clear Time (g_c+I1), s	6.7	52.8	10.1	16.3	6.3	5.7	8.9	16.8
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	1.2	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	54.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	60	0	0	70	0
Future Vol, veh/h	0	0	0	0	0	0	0	60	0	0	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	65	0	0	76	0

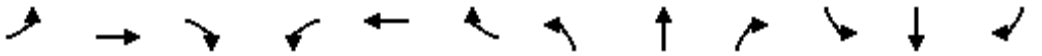
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	40	2	1	35	2	1
Stage 1	-	-	-	-	-	-	1	1	-	1	1	-
Stage 2	-	-	-	-	-	-	39	1	-	34	1	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1622	-	-	1622	-	-	964	894	1084	971	894	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	976	895	-	982	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	901	894	1084	917	894	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	901	894	-	917	894	-
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	893	895	-	910	895	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.3	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	894	1622	-	-	1622	-	-	894
HCM Lane V/C Ratio	0.073	-	-	-	-	-	-	0.085
HCM Control Delay (s)	9.3	0	-	-	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	68	379	2	1	216	58	26	147
v/c Ratio	0.17	0.21	0.00	0.00	0.14	0.08	0.07	0.36
Control Delay	13.2	7.3	0.0	15.0	10.4	5.3	2.7	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	7.3	0.0	15.0	10.4	5.3	2.7	9.0
Queue Length 50th (ft)	6	15	0	0	8	0	0	5
Queue Length 95th (ft)	37	63	0	3	43	20	7	45
Internal Link Dist (ft)		2540			612		326	234
Turn Bay Length (ft)	310		300	315		155		
Base Capacity (vph)	1475	3352	1501	1475	3352	1501	1403	1416
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.11	0.00	0.00	0.06	0.04	0.02	0.10

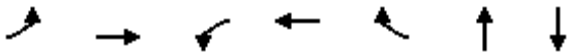
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	360	2	1	205	55	18	0	7	47	0	93
Future Volume (veh/h)	65	360	2	1	205	55	18	0	7	47	0	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	68	379	2	1	216	58	19	0	7	49	0	98
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	131	979	437	7	722	322	397	35	63	268	7	146
Arrive On Green	0.08	0.28	0.28	0.00	0.21	0.21	0.15	0.00	0.15	0.15	0.00	0.15
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	921	238	427	449	46	991
Grp Volume(v), veh/h	68	379	2	1	216	58	26	0	0	147	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1586	0	0	1486	0	0
Q Serve(g_s), s	0.9	2.1	0.0	0.0	1.3	0.7	0.0	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	0.9	2.1	0.0	0.0	1.3	0.7	0.3	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.73		0.27	0.33		0.67
Lane Grp Cap(c), veh/h	131	979	437	7	722	322	495	0	0	421	0	0
V/C Ratio(X)	0.52	0.39	0.00	0.14	0.30	0.18	0.05	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	1955	5705	2545	1955	5705	2545	2518	0	0	2677	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.6	6.9	6.1	11.9	7.9	7.7	8.8	0.0	0.0	9.6	0.0	0.0
Incr Delay (d2), s/veh	3.1	0.3	0.0	8.4	0.2	0.3	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	7.1	6.1	20.3	8.2	8.0	8.8	0.0	0.0	10.1	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	A	A	A	B	A	A
Approach Vol, veh/h		449			275			26			147	
Approach Delay, s/veh		8.1			8.2			8.8			10.1	
Approach LOS		A			A			A			B	

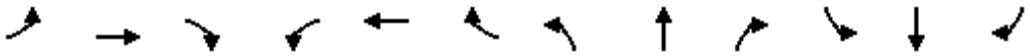
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	11.3		8.0	6.3	9.5		8.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.0	4.1		4.2	2.9	3.3		2.3				
Green Ext Time (p_c), s	0.0	2.2		0.9	0.1	1.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		8.5	
HCM 6th LOS		A	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	35	369	32	247	23	118	399
v/c Ratio	0.13	0.39	0.12	0.30	0.05	0.18	0.66
Control Delay	35.8	23.8	35.9	25.7	0.2	8.5	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	23.8	35.9	25.7	0.2	8.5	22.3
Queue Length 50th (ft)	13	55	12	49	0	14	128
Queue Length 95th (ft)	43	122	41	85	0	39	209
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	295	1606	314	1652	776	1277	1190
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.23	0.10	0.15	0.03	0.09	0.34

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	273	11	25	190	18	12	31	48	107	113	87
Future Volume (veh/h)	27	273	11	25	190	18	12	31	48	107	113	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	35	355	14	32	247	23	16	40	62	139	147	113
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	127	702	28	118	699	312	117	247	321	255	250	165
Arrive On Green	0.08	0.21	0.21	0.07	0.21	0.21	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1682	3292	129	1682	3357	1497	110	636	826	429	644	424
Grp Volume(v), veh/h	35	181	188	32	247	23	118	0	0	399	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1743	1682	1678	1497	1571	0	0	1498	0	0
Q Serve(g_s), s	1.1	5.2	5.2	1.0	3.4	0.7	0.0	0.0	0.0	8.5	0.0	0.0
Cycle Q Clear(g_c), s	1.1	5.2	5.2	1.0	3.4	0.7	2.6	0.0	0.0	11.9	0.0	0.0
Prop In Lane	1.00		0.07	1.00		1.00	0.14		0.53	0.35		0.28
Lane Grp Cap(c), veh/h	127	358	372	118	699	312	685	0	0	670	0	0
V/C Ratio(X)	0.28	0.50	0.51	0.27	0.35	0.07	0.17	0.00	0.00	0.60	0.00	0.00
Avail Cap(c_a), veh/h	331	902	937	353	1848	824	1763	0	0	1730	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.0	19.0	19.0	24.2	18.6	17.5	11.1	0.0	0.0	13.8	0.0	0.0
Incr Delay (d2), s/veh	1.2	3.9	3.8	1.2	1.1	0.4	0.4	0.0	0.0	3.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.0	2.1	0.4	1.2	0.2	0.8	0.0	0.0	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	23.0	22.9	25.4	19.7	17.8	11.5	0.0	0.0	16.8	0.0	0.0
LnGrp LOS	C	C	C	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		404			302			118			399	
Approach Delay, s/veh		23.1			20.1			11.5			16.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	18.7		28.3	8.1	18.4		28.3				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	3.0	7.2		4.6	3.1	5.4		13.9				
Green Ext Time (p_c), s	0.0	4.5		1.9	0.0	3.4		7.4				

Intersection Summary												
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	3	0	0	4	0
Future Vol, veh/h	0	0	0	0	0	0	0	3	0	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	3	0	0	4	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	4	2	1	4	2	1
Stage 1	-	-	-	-	-	-	1	1	-	1	1	-
Stage 2	-	-	-	-	-	-	3	1	-	3	1	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1622	-	-	1622	-	-	1017	894	1084	1017	894	1084
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1020	895	-	1020	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1013	894	1084	1014	894	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1013	894	-	1014	894	-
Stage 1	-	-	-	-	-	-	1022	895	-	1022	895	-
Stage 2	-	-	-	-	-	-	1015	895	-	1016	895	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	894	1622	-	-	1622	-	-	894
HCM Lane V/C Ratio	0.004	-	-	-	-	-	-	0.005
HCM Control Delay (s)	9	0	-	-	0	-	-	9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	429	0	0	279	0	0	0	0	0	0	0
Future Vol, veh/h	0	429	0	0	279	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	452	0	0	294	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	294	0	0	452	0	0	746	746	452	746	746	294
Stage 1	-	-	-	-	-	-	452	452	-	294	294	-
Stage 2	-	-	-	-	-	-	294	294	-	452	452	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1229	-	-	1073	-	-	321	334	593	321	334	729
Stage 1	-	-	-	-	-	-	574	559	-	699	657	-
Stage 2	-	-	-	-	-	-	699	657	-	574	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1229	-	-	1073	-	-	321	334	593	321	334	729
Mov Cap-2 Maneuver	-	-	-	-	-	-	321	334	-	321	334	-
Stage 1	-	-	-	-	-	-	574	559	-	699	657	-
Stage 2	-	-	-	-	-	-	699	657	-	574	559	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1229	-	-	1073	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	94	26	9	13	1	13	57	10	3	26	4
Future Vol, veh/h	1	94	26	9	13	1	13	57	10	3	26	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	1	124	34	12	17	1	17	75	13	4	34	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	158	0	0	204	185	141	229	202	18
Stage 1	-	-	-	-	-	-	143	143	-	42	42	-
Stage 2	-	-	-	-	-	-	61	42	-	187	160	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1586	-	-	1409	-	-	750	706	902	722	691	1055
Stage 1	-	-	-	-	-	-	855	775	-	967	856	-
Stage 2	-	-	-	-	-	-	945	856	-	810	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1409	-	-	713	699	902	648	684	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	713	699	-	648	684	-
Stage 1	-	-	-	-	-	-	854	774	-	966	848	-
Stage 2	-	-	-	-	-	-	894	848	-	720	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	3	10.8	10.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	722	1586	-	-	1409	-	-	711
HCM Lane V/C Ratio	0.146	0.001	-	-	0.008	-	-	0.061
HCM Control Delay (s)	10.8	7.3	0	-	7.6	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	66	60	0
Future Vol, veh/h	0	0	0	66	60	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	72	65	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	137	65	65	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	72	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	856	999	1537	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	951	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	856	999	1537	-	-	-
Mov Cap-2 Maneuver	856	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	951	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1537	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	354	75	26	206	6	89	65	87	6	35	2
Future Vol, veh/h	4	354	75	26	206	6	89	65	87	6	35	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	4	389	82	29	226	7	98	71	96	7	38	2
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	19.2	12.6	11.7	10.4
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	0%	1%	11%	14%
Vol Thru, %	42%	0%	82%	87%	81%
Vol Right, %	0%	100%	17%	3%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	154	87	433	238	43
LT Vol	89	0	4	26	6
Through Vol	65	0	354	206	35
RT Vol	0	87	75	6	2
Lane Flow Rate	169	96	476	262	47
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.324	0.156	0.691	0.41	0.087
Departure Headway (Hd)	6.883	5.876	5.229	5.642	6.63
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	521	608	690	636	537
Service Time	4.641	3.633	3.276	3.697	4.712
HCM Lane V/C Ratio	0.324	0.158	0.69	0.412	0.088
HCM Control Delay	12.9	9.7	19.2	12.6	10.4
HCM Lane LOS	B	A	C	B	B
HCM 95th-tile Q	1.4	0.5	5.5	2	0.3

Intersection	
Intersection Delay, s/veh	13.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	34	83	50	2	31	33	174	86	28	148	4
Future Vol, veh/h	51	34	83	50	2	31	33	174	86	28	148	4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	68	45	111	67	3	41	44	232	115	37	197	5
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	12.1	10.4	15.1	12.1
HCM LOS	B	B	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	11%	30%	100%	0%	16%
Vol Thru, %	59%	20%	0%	6%	82%
Vol Right, %	29%	49%	0%	94%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	293	168	50	33	180
LT Vol	33	51	50	0	28
Through Vol	174	34	0	2	148
RT Vol	86	83	0	31	4
Lane Flow Rate	391	224	67	44	240
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.569	0.36	0.133	0.074	0.376
Departure Headway (Hd)	5.246	5.789	7.198	6.017	5.636
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	684	618	496	592	636
Service Time	3.297	3.849	4.968	3.787	3.694
HCM Lane V/C Ratio	0.572	0.362	0.135	0.074	0.377
HCM Control Delay	15.1	12.1	11.1	9.3	12.1
HCM Lane LOS	C	B	B	A	B
HCM 95th-tile Q	3.6	1.6	0.5	0.2	1.7

Intersection	
Intersection Delay, s/veh	19.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	106	9	194	52	8	2	64	173	83	5	246	37
Future Vol, veh/h	106	9	194	52	8	2	64	173	83	5	246	37
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	126	11	231	62	10	2	76	206	99	6	293	44
Number of Lanes	1	1	0	1	1	1	0	1	0	0	1	0

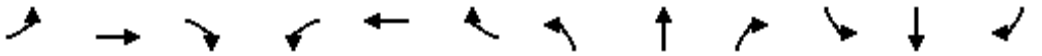
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	2
HCM Control Delay	14.8	12.3	23.6	20.6
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	20%	100%	0%	100%	0%	0%	2%
Vol Thru, %	54%	0%	4%	0%	100%	0%	85%
Vol Right, %	26%	0%	96%	0%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	106	203	52	8	2	288
LT Vol	64	106	0	52	0	0	5
Through Vol	173	0	9	0	8	0	246
RT Vol	83	0	194	0	0	2	37
Lane Flow Rate	381	126	242	62	10	2	343
Geometry Grp	7	8	8	7	7	7	7
Degree of Util (X)	0.702	0.282	0.459	0.144	0.021	0.005	0.638
Departure Headway (Hd)	6.631	8.042	6.833	8.387	7.869	7.145	6.7
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	545	447	527	427	454	500	538
Service Time	4.373	5.79	4.58	6.146	5.629	4.904	4.444
HCM Lane V/C Ratio	0.699	0.282	0.459	0.145	0.022	0.004	0.638
HCM Control Delay	23.6	13.9	15.3	12.6	10.8	9.9	20.6
HCM Lane LOS	C	B	C	B	B	A	C
HCM 95th-tile Q	5.5	1.1	2.4	0.5	0.1	0	4.5

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	66	502	50	165	30	74	250	86	67	478	35
v/c Ratio	0.40	0.36	0.54	0.13	0.04	0.47	0.44	0.14	0.40	0.83	0.07
Control Delay	53.1	19.2	72.4	27.6	0.1	57.7	30.1	0.5	53.1	44.5	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	19.2	72.4	27.6	0.1	57.7	30.1	0.5	53.1	44.5	23.8
Queue Length 50th (ft)	41	93	32	39	0	46	129	0	42	290	16
Queue Length 95th (ft)	86	155	#97	77	0	99	198	0	88	385	36
Internal Link Dist (ft)		5186		5169			1972			1396	
Turn Bay Length (ft)	270		270		205	260		100	95		60
Base Capacity (vph)	349	1387	93	1259	675	186	793	773	358	970	824
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.36	0.54	0.13	0.04	0.40	0.32	0.11	0.19	0.49	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	265	167	43	142	26	64	215	74	58	411	30
Future Volume (veh/h)	57	265	167	43	142	26	64	215	74	58	411	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	66	308	194	50	165	30	74	250	86	67	478	35
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	85	843	518	68	1382	617	95	560	475	87	551	467
Arrive On Green	0.05	0.41	0.41	0.04	0.40	0.40	0.05	0.31	0.31	0.05	0.30	0.30
Sat Flow, veh/h	1739	2064	1268	1739	3469	1547	1739	1826	1547	1739	1826	1547
Grp Volume(v), veh/h	66	258	244	50	165	30	74	250	86	67	478	35
Grp Sat Flow(s),veh/h/ln	1739	1735	1598	1739	1735	1547	1739	1826	1547	1739	1826	1547
Q Serve(g_s), s	3.4	9.5	9.8	2.6	2.8	1.1	3.9	10.1	3.7	3.5	22.7	1.5
Cycle Q Clear(g_c), s	3.4	9.5	9.8	2.6	2.8	1.1	3.9	10.1	3.7	3.5	22.7	1.5
Prop In Lane	1.00		0.79	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	708	652	68	1382	617	95	560	475	87	551	467
V/C Ratio(X)	0.77	0.36	0.37	0.73	0.12	0.05	0.78	0.45	0.18	0.77	0.87	0.07
Avail Cap(c_a), veh/h	356	708	652	95	1382	617	189	799	677	365	984	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	18.9	19.0	43.6	17.5	16.9	42.9	25.6	23.4	43.1	30.3	22.9
Incr Delay (d2), s/veh	13.7	1.4	1.6	16.6	0.2	0.1	12.9	0.6	0.2	13.4	4.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.6	3.5	1.4	1.0	0.4	1.9	4.2	1.3	1.8	10.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	20.3	20.6	60.2	17.6	17.1	55.8	26.1	23.6	56.6	34.6	23.0
LnGrp LOS	E	C	C	E	B	B	E	C	C	E	C	C
Approach Vol, veh/h		568			245			410			580	
Approach Delay, s/veh		24.7			26.3			30.9			36.4	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	42.0	9.5	32.2	9.0	41.1	9.1	32.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	4.6	11.8	5.9	24.7	5.4	4.8	5.5	12.1
Green Ext Time (p_c), s	0.0	2.7	0.0	3.0	0.1	0.8	0.1	1.6

Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	33	36	433	82	43	628
v/c Ratio	0.06	0.07	0.46	0.10	0.35	0.57
Control Delay	28.0	9.0	22.2	5.0	60.2	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	9.0	22.2	5.0	60.2	17.3
Queue Length 50th (ft)	17	0	217	3	32	280
Queue Length 95th (ft)	42	24	323	31	69	386
Internal Link Dist (ft)	759		1603			557
Turn Bay Length (ft)	200			195	200	
Base Capacity (vph)	582	545	941	837	398	1110
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.07	0.46	0.10	0.11	0.57

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	33	398	75	40	578
Future Volume (veh/h)	30	33	398	75	40	578
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	36	433	82	43	628
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	586	522	985	835	57	1114
Arrive On Green	0.33	0.33	0.53	0.53	0.03	0.60
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	33	36	433	82	43	628
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	1.5	1.9	17.1	3.1	2.9	24.5
Cycle Q Clear(g_c), s	1.5	1.9	17.1	3.1	2.9	24.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	586	522	985	835	57	1114
V/C Ratio(X)	0.06	0.07	0.44	0.10	0.76	0.56
Avail Cap(c_a), veh/h	586	522	985	835	401	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	27.6	17.5	14.2	57.6	14.8
Incr Delay (d2), s/veh	0.2	0.3	1.4	0.2	18.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.0	7.4	1.1	1.6	10.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.7	27.9	18.9	14.4	76.3	16.8
LnGrp LOS	C	C	B	B	E	B
Approach Vol, veh/h	69		515			671
Approach Delay, s/veh	27.8		18.2			20.6
Approach LOS	C		B			C

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	76.0	44.0	8.3	67.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	71.5	39.5	27.0	40.0
Max Q Clear Time (g_c+I1), s	26.5	3.9	4.9	19.1
Green Ext Time (p_c), s	4.3	0.2	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	385	10	32	292	3	35
Future Vol, veh/h	385	10	32	292	3	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	423	11	35	321	3	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	434	0	820	429
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	391	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1120	-	343	624
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1120	-	330	624
Mov Cap-2 Maneuver	-	-	-	-	330	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	583	-	-	1120	-
HCM Lane V/C Ratio	0.072	-	-	0.031	-
HCM Control Delay (s)	11.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	158	3	55	106	31	1	11	55	15	10	5
Future Vol, veh/h	15	158	3	55	106	31	1	11	55	15	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	172	3	60	115	34	1	12	60	16	11	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	175	0	0	466	475	174	494	459	132
Stage 1	-	-	-	-	-	-	206	206	-	252	252	-
Stage 2	-	-	-	-	-	-	260	269	-	242	207	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1432	-	-	1401	-	-	507	488	869	486	499	917
Stage 1	-	-	-	-	-	-	796	731	-	752	698	-
Stage 2	-	-	-	-	-	-	745	687	-	762	731	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1432	-	-	1401	-	-	475	462	869	426	472	917
Mov Cap-2 Maneuver	-	-	-	-	-	-	475	462	-	426	472	-
Stage 1	-	-	-	-	-	-	787	723	-	744	668	-
Stage 2	-	-	-	-	-	-	697	657	-	690	723	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.2	10.2	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	475	758	1432	-	-	1401	-	-	485
HCM Lane V/C Ratio	0.002	0.095	0.011	-	-	0.043	-	-	0.067
HCM Control Delay (s)	12.6	10.2	7.5	-	-	7.7	-	-	13
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.3	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	62	21	21	12	1	21	0	45	0	1	1
Future Vol, veh/h	0	62	21	21	12	1	21	0	45	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	67	23	23	13	1	23	0	49	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	14	0	0	90	0	0	140	139	79	163	150	14
Stage 1	-	-	-	-	-	-	79	79	-	60	60	-
Stage 2	-	-	-	-	-	-	61	60	-	103	90	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1604	-	-	1505	-	-	830	752	981	802	742	1066
Stage 1	-	-	-	-	-	-	930	829	-	951	845	-
Stage 2	-	-	-	-	-	-	950	845	-	903	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1604	-	-	1505	-	-	818	741	981	753	731	1066
Mov Cap-2 Maneuver	-	-	-	-	-	-	818	741	-	753	731	-
Stage 1	-	-	-	-	-	-	930	829	-	951	832	-
Stage 2	-	-	-	-	-	-	934	832	-	858	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.6	9.2	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	923	1604	-	-	1505	-	-	867
HCM Lane V/C Ratio	0.078	-	-	-	0.015	-	-	0.003
HCM Control Delay (s)	9.2	0	-	-	7.4	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

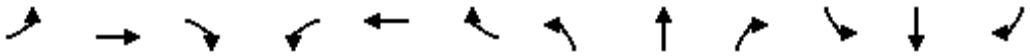
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	1	0	0	0	67	0	0	43	0
Future Vol, veh/h	0	0	0	1	0	0	0	67	0	0	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	1	0	0	0	73	0	0	47	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	120	120	47	120	120	73	47	0	0	73	0	0
Stage 1	47	47	-	73	73	-	-	-	-	-	-	-
Stage 2	73	73	-	47	47	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	855	770	1022	855	770	989	1560	-	-	1527	-	-
Stage 1	967	856	-	937	834	-	-	-	-	-	-	-
Stage 2	937	834	-	967	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	855	770	1022	855	770	989	1560	-	-	1527	-	-
Mov Cap-2 Maneuver	855	770	-	855	770	-	-	-	-	-	-	-
Stage 1	967	856	-	937	834	-	-	-	-	-	-	-
Stage 2	937	834	-	967	856	-	-	-	-	-	-	-

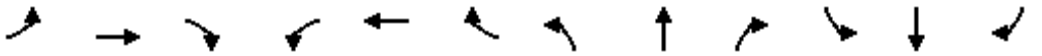
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.2	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1560	-	-	-	855	1527	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	0	-	-	0	9.2	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	393	54	109	880	67	34	196	183	11	43	11
v/c Ratio	0.26	0.38	0.06	0.51	0.75	0.06	0.27	0.60	0.43	0.11	0.10	0.03
Control Delay	48.4	15.5	0.1	47.3	20.3	1.4	48.5	42.3	8.6	47.5	37.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	15.5	0.1	47.3	20.3	1.4	48.5	42.3	8.6	47.5	37.3	0.2
Queue Length 50th (ft)	18	125	0	60	369	0	19	103	0	6	12	0
Queue Length 95th (ft)	54	278	0	123	110	12	55	190	57	26	28	0
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	134	1043	946	312	1177	1035	136	789	776	102	1430	720
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.38	0.06	0.35	0.75	0.06	0.25	0.25	0.24	0.11	0.03	0.02

Intersection Summary



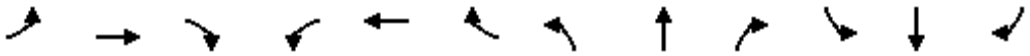
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	362	50	100	220	62	31	180	168	10	40	10
Future Volume (veh/h)	30	362	50	100	220	62	31	180	168	10	40	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	393	54	109	880	67	34	196	183	11	43	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.25	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	1039	881	139	1127	955	57	282	239	24	470	210
Arrive On Green	0.03	0.56	0.56	0.08	0.60	0.60	0.03	0.15	0.15	0.01	0.13	0.13
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	33	393	54	109	880	67	34	196	183	11	43	11
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	1.6	10.5	1.4	5.4	31.5	1.6	1.7	8.9	9.9	0.5	0.9	0.5
Cycle Q Clear(g_c), s	1.6	10.5	1.4	5.4	31.5	1.6	1.7	8.9	9.9	0.5	0.9	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	1039	881	139	1127	955	57	282	239	24	470	210
V/C Ratio(X)	0.59	0.38	0.06	0.78	0.78	0.07	0.60	0.69	0.77	0.46	0.09	0.05
Avail Cap(c_a), veh/h	132	1039	881	306	1127	955	134	770	653	100	1396	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	11.1	9.1	40.3	13.3	7.4	42.6	35.9	36.3	43.6	34.0	33.8
Incr Delay (d2), s/veh	9.6	1.0	0.1	9.1	5.4	0.1	9.7	3.1	5.1	13.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.8	0.4	2.5	11.4	0.5	0.9	4.1	3.9	0.3	0.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	12.2	9.2	49.5	18.7	7.5	52.2	39.0	41.4	56.9	34.0	33.9
LnGrp LOS	D	B	A	D	B	A	D	D	D	E	C	C
Approach Vol, veh/h		480			1056			413			65	
Approach Delay, s/veh		14.6			21.2			41.1			37.9	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	54.0	7.3	16.3	7.3	58.2	5.7	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	7.4	12.5	3.7	2.9	3.6	33.5	2.5	11.9
Green Ext Time (p_c), s	0.1	2.3	0.0	0.2	0.0	5.9	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	26	235	102	138	205	374	239	28	244
v/c Ratio	0.28	0.40	0.59	0.18	0.74	0.50	0.31	0.30	0.27
Control Delay	62.5	27.7	64.8	22.8	62.2	29.8	4.2	62.7	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	27.7	64.8	22.8	62.2	29.8	4.2	62.7	34.6
Queue Length 50th (ft)	20	116	77	67	153	224	0	21	75
Queue Length 95th (ft)	51	193	135	115	228	321	52	53	117
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	94	593	210	752	365	749	779	97	910
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.40	0.49	0.18	0.56	0.50	0.31	0.29	0.27

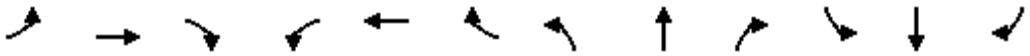
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	113	108	96	107	23	193	352	225	26	207	23
Future Volume (veh/h)	24	113	108	96	107	23	193	352	225	26	207	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	120	115	102	114	24	205	374	239	28	220	24
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	303	290	128	587	124	237	746	632	46	943	102
Arrive On Green	0.02	0.34	0.34	0.07	0.39	0.39	0.13	0.40	0.40	0.03	0.29	0.29
Sat Flow, veh/h	1781	878	841	1781	1498	315	1781	1870	1585	1781	3235	349
Grp Volume(v), veh/h	26	0	235	102	0	138	205	374	239	28	120	124
Grp Sat Flow(s),veh/h/ln	1781	0	1719	1781	0	1814	1781	1870	1585	1781	1777	1807
Q Serve(g_s), s	1.6	0.0	11.8	6.4	0.0	5.7	12.8	17.0	12.1	1.8	5.8	5.9
Cycle Q Clear(g_c), s	1.6	0.0	11.8	6.4	0.0	5.7	12.8	17.0	12.1	1.8	5.8	5.9
Prop In Lane	1.00		0.49	1.00		0.17	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	44	0	593	128	0	711	237	746	632	46	518	527
V/C Ratio(X)	0.59	0.00	0.40	0.80	0.00	0.19	0.86	0.50	0.38	0.61	0.23	0.24
Avail Cap(c_a), veh/h	96	0	593	212	0	711	369	746	632	99	518	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	0.0	28.2	51.8	0.0	22.7	48.1	25.6	24.1	54.6	30.5	30.5
Incr Delay (d2), s/veh	12.1	0.0	2.0	10.7	0.0	0.6	12.2	2.4	1.7	12.3	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	5.0	3.2	0.0	2.4	6.3	7.7	4.6	0.9	2.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	0.0	30.2	62.5	0.0	23.3	60.3	28.0	25.8	66.9	31.5	31.6
LnGrp LOS	E	A	C	E	A	C	E	C	C	E	C	C
Approach Vol, veh/h		261			240			818			272	
Approach Delay, s/veh		33.8			40.0			35.5			35.2	
Approach LOS		C			D			D			D	

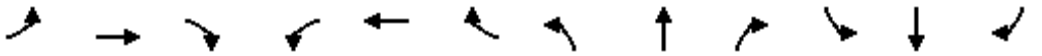
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	43.6	19.6	37.5	7.3	48.9	7.4	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	8.4	13.8	14.8	7.9	3.6	7.7	3.8	19.0
Green Ext Time (p_c), s	0.1	1.2	0.3	1.1	0.0	0.7	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	90	288	51	101	138	169	144	698	136	176	364	47
v/c Ratio	0.53	0.23	0.08	0.57	0.11	0.25	0.64	0.78	0.30	0.69	0.38	0.11
Control Delay	67.7	32.0	3.4	68.8	30.9	6.3	66.8	49.6	19.5	66.1	37.8	35.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	32.0	3.4	68.8	30.9	6.3	66.8	49.6	19.5	66.1	37.8	35.3
Queue Length 50th (ft)	68	84	0	77	37	0	109	268	37	133	122	28
Queue Length 95th (ft)	142	157	16	157	82	57	205	385	100	240	187	65
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	285	1245	606	256	1261	673	344	1303	631	402	1420	635
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.23	0.08	0.39	0.11	0.25	0.42	0.54	0.22	0.44	0.26	0.07

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	282	50	99	135	166	141	684	133	172	357	46
Future Volume (veh/h)	88	282	50	99	135	166	141	684	133	172	357	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	288	51	101	138	169	144	698	136	176	364	47
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	1403	626	128	1428	637	176	881	393	210	949	423
Arrive On Green	0.06	0.39	0.39	0.07	0.40	0.40	0.10	0.25	0.25	0.12	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	90	288	51	101	138	169	144	698	136	176	364	47
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.4	5.7	2.2	6.0	2.6	7.7	8.5	19.8	7.6	10.4	9.0	2.4
Cycle Q Clear(g_c), s	5.4	5.7	2.2	6.0	2.6	7.7	8.5	19.8	7.6	10.4	9.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	1403	626	128	1428	637	176	881	393	210	949	423
V/C Ratio(X)	0.78	0.21	0.08	0.79	0.10	0.27	0.82	0.79	0.35	0.84	0.38	0.11
Avail Cap(c_a), veh/h	323	1403	626	290	1428	637	389	1469	655	455	1601	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	21.4	20.4	49.1	20.0	21.6	47.5	37.9	33.3	46.4	32.2	29.8
Incr Delay (d2), s/veh	10.7	0.3	0.3	10.2	0.1	1.0	8.9	1.7	0.5	8.5	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.3	0.8	2.9	1.0	2.9	4.1	8.4	2.9	4.9	3.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	21.8	20.6	59.4	20.2	22.6	56.4	39.5	33.8	54.9	32.5	29.9
LnGrp LOS	E	C	C	E	C	C	E	D	C	D	C	C
Approach Vol, veh/h		429			408			978			587	
Approach Delay, s/veh		29.7			30.9			41.2			39.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	47.0	15.2	33.3	11.5	47.8	17.2	31.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	42.5	23.5	48.5	19.5	40.5	27.5	44.5
Max Q Clear Time (g_c+I1), s	8.0	7.7	10.5	11.0	7.4	9.7	12.4	21.8
Green Ext Time (p_c), s	0.1	1.8	0.3	2.4	0.1	1.3	0.4	4.9

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	66	0	0	60
Future Vol, veh/h	0	0	66	0	0	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	72	0	0	65

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	137	72	0	0	72	0
Stage 1	72	-	-	-	-	-
Stage 2	65	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	856	990	-	-	1528	-
Stage 1	951	-	-	-	-	-
Stage 2	958	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	856	990	-	-	1528	-
Mov Cap-2 Maneuver	856	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	958	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1528	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	39	809	19	711	53
v/c Ratio	0.10	0.41	0.19	0.33	0.14
Control Delay	10.0	11.2	54.1	7.5	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	11.2	54.1	7.5	10.4
Queue Length 50th (ft)	8	113	12	95	0
Queue Length 95th (ft)	29	213	39	123	33
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	399	1992	182	2489	382
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.41	0.10	0.29	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	754	7	18	668	0	4	0	46	0	0	0
Future Volume (veh/h)	37	754	7	18	668	0	4	0	46	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	39	802	7	19	711	0	4	0	49			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	460	2022	18	32	2185	0	25	0	308			
Arrive On Green	0.62	0.62	0.62	0.02	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	662	3238	28	1598	3272	0	108	0	1325			
Grp Volume(v), veh/h	39	395	414	19	711	0	53	0	0			
Grp Sat Flow(s),veh/h/ln	662	1594	1673	1598	1594	0	1434	0	0			
Q Serve(g_s), s	2.8	13.6	13.6	1.3	9.9	0.0	3.2	0.0	0.0			
Cycle Q Clear(g_c), s	6.0	13.6	13.6	1.3	9.9	0.0	3.2	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.08		0.92			
Lane Grp Cap(c), veh/h	460	995	1044	32	2185	0	333	0	0			
V/C Ratio(X)	0.08	0.40	0.40	0.59	0.33	0.00	0.16	0.00	0.00			
Avail Cap(c_a), veh/h	460	995	1044	182	2484	0	333	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.5	10.3	10.3	53.3	7.0	0.0	33.6	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.2	1.1	16.3	0.1	0.0	1.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.2	4.4	0.6	2.6	0.0	1.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	11.5	11.4	69.6	7.1	0.0	34.6	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		848			730			53				
Approach Delay, s/veh		11.4			8.7			34.6				
Approach LOS		B			A			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.7	73.0				79.7		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.3	15.6				11.9		5.2				
Green Ext Time (p_c), s	0.0	5.3				4.8		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	285	12	492	119	65	709
v/c Ratio	0.20	0.61	0.06	0.45	0.24	0.24	0.50
Control Delay	16.2	23.5	30.5	18.1	18.6	28.2	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	23.5	30.5	18.1	18.6	28.2	13.5
Queue Length 50th (ft)	26	79	4	70	30	19	68
Queue Length 95th (ft)	73	192	22	145	84	65	198
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	1237	1024	331	2780	1243	680	3045
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.28	0.04	0.18	0.10	0.10	0.23

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	62	36	103	59	92	11	438	106	58	630	1
Future Volume (veh/h)	1	62	36	103	59	92	11	438	106	58	630	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	70	40	116	66	103	12	492	119	65	708	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	100	293	166	267	129	146	26	956	426	110	1151	2
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.02	0.29	0.29	0.07	0.34	0.34
Sat Flow, veh/h	4	1048	592	462	462	523	1668	3328	1485	1668	3410	5
Grp Volume(v), veh/h	111	0	0	285	0	0	12	492	119	65	345	364
Grp Sat Flow(s),veh/h/ln	1643	0	0	1446	0	0	1668	1664	1485	1668	1664	1751
Q Serve(g_s), s	0.0	0.0	0.0	4.4	0.0	0.0	0.3	4.5	2.3	1.4	6.4	6.4
Cycle Q Clear(g_c), s	1.9	0.0	0.0	6.3	0.0	0.0	0.3	4.5	2.3	1.4	6.4	6.4
Prop In Lane	0.01		0.36	0.41		0.36	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	559	0	0	543	0	0	26	956	426	110	561	591
V/C Ratio(X)	0.20	0.00	0.00	0.53	0.00	0.00	0.46	0.51	0.28	0.59	0.62	0.62
Avail Cap(c_a), veh/h	1814	0	0	1616	0	0	431	4388	1957	884	2646	2784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	11.7	0.0	0.0	18.0	11.0	10.2	16.7	10.2	10.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.0	12.0	0.4	0.4	5.0	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.7	0.0	0.0	0.2	1.0	0.5	0.5	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	0.0	0.0	12.5	0.0	0.0	29.9	11.4	10.5	21.7	11.3	11.2
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		111			285			623			774	
Approach Delay, s/veh		10.4			12.5			11.6			12.1	
Approach LOS		B			B			B			B	

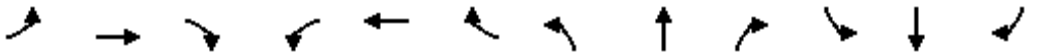
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.8	5.1	16.9		14.8	6.9	15.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	9.5	58.5		38.5	19.5	48.5				
Max Q Clear Time (g_c+I1), s		3.9	2.3	8.4		8.3	3.4	6.5				
Green Ext Time (p_c), s		0.6	0.0	4.0		2.0	0.1	3.4				

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	267	303	266	182	392	99	87	460	75	66	832
v/c Ratio	0.97	0.30	0.42	0.76	0.42	0.20	0.53	0.49	0.15	0.46	0.91
Control Delay	93.3	31.6	6.2	66.7	34.2	7.6	59.6	34.5	4.5	59.1	51.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.3	31.6	6.2	66.7	34.2	7.6	59.6	34.5	4.5	59.1	51.0
Queue Length 50th (ft)	195	90	0	126	122	0	61	143	0	46	284
Queue Length 95th (ft)	#387	138	66	#231	178	42	113	204	24	92	#435
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	276	1008	632	276	932	486	276	967	499	276	935
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.30	0.42	0.66	0.42	0.20	0.32	0.48	0.15	0.24	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	282	247	169	365	92	81	428	70	61	515	259
Future Volume (veh/h)	248	282	247	169	365	92	81	428	70	61	515	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	267	303	266	182	392	99	87	460	75	66	554	278
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	286	1111	496	211	961	429	109	978	436	83	598	299
Arrive On Green	0.18	0.35	0.35	0.13	0.30	0.30	0.07	0.30	0.30	0.05	0.29	0.29
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2074	1039
Grp Volume(v), veh/h	267	303	266	182	392	99	87	460	75	66	429	403
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	17.5	7.3	16.0	11.9	10.4	5.6	5.7	12.4	4.1	4.3	27.8	27.8
Cycle Q Clear(g_c), s	17.5	7.3	16.0	11.9	10.4	5.6	5.7	12.4	4.1	4.3	27.8	27.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	286	1111	496	211	961	429	109	978	436	83	463	434
V/C Ratio(X)	0.93	0.27	0.54	0.86	0.41	0.23	0.80	0.47	0.17	0.79	0.93	0.93
Avail Cap(c_a), veh/h	286	1111	496	286	961	429	286	978	436	286	480	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	25.3	28.1	45.6	30.0	28.3	49.2	30.3	27.4	50.2	37.0	37.0
Incr Delay (d2), s/veh	36.0	0.6	4.1	18.1	1.3	1.3	12.5	0.4	0.2	15.5	23.7	25.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	2.7	5.6	5.5	3.9	1.9	2.6	4.5	1.3	2.0	13.1	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.4	25.9	32.3	63.7	31.3	29.5	61.7	30.6	27.5	65.7	60.7	62.3
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	E	E
Approach Vol, veh/h		836			673			622			898	
Approach Delay, s/veh		45.0			39.8			34.6			61.8	
Approach LOS		D			D			C			E	

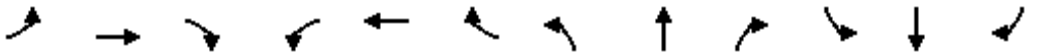
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	41.5	11.7	35.4	23.5	36.5	10.0	37.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	32.0	19.0	32.0	19.0	32.0	19.0	32.0
Max Q Clear Time (g_c+I1), s	13.9	18.0	7.7	29.8	19.5	12.4	6.3	14.4
Green Ext Time (p_c), s	0.2	2.2	0.1	1.0	0.0	2.4	0.1	2.6

Intersection Summary	
HCM 6th Ctrl Delay	46.7
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	20	65	12	202	713	15	4	930	119
v/c Ratio	0.21	0.09	0.14	0.89	0.45	0.02	0.05	0.88	0.21
Control Delay	57.3	0.2	56.6	84.2	20.1	0.1	54.5	45.7	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	0.2	56.6	84.2	20.1	0.1	54.5	45.7	4.3
Queue Length 50th (ft)	13	0	8	137	142	0	3	300	0
Queue Length 95th (ft)	41	0	29	#308	273	0	15	433	30
Internal Link Dist (ft)					1421			2552	
Turn Bay Length (ft)	200	110	120	250		275	305		110
Base Capacity (vph)	110	722	95	228	1599	762	95	1195	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09	0.13	0.89	0.45	0.02	0.04	0.78	0.19

Intersection Summary

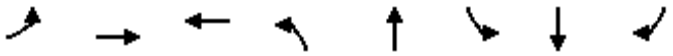
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	58	11	0	0	180	635	13	4	828	106
Future Volume (veh/h)	18	0	58	11	0	0	180	635	13	4	828	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	20	0	65	12	0	0	202	713	15	4	930	119
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	34	1162	518	23	1140	508	227	1490	665	9	1053	470
Arrive On Green	0.02	0.00	0.36	0.01	0.00	0.00	0.14	0.46	0.46	0.01	0.32	0.32
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	20	0	65	12	0	0	202	713	15	4	930	119
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.3	0.0	3.3	0.8	0.0	0.0	13.5	16.8	0.6	0.3	29.9	6.7
Cycle Q Clear(g_c), s	1.3	0.0	3.3	0.8	0.0	0.0	13.5	16.8	0.6	0.3	29.9	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	1162	518	23	1140	508	227	1490	665	9	1053	470
V/C Ratio(X)	0.59	0.00	0.13	0.53	0.00	0.00	0.89	0.48	0.02	0.47	0.88	0.25
Avail Cap(c_a), veh/h	111	1162	518	96	1140	508	229	1490	665	96	1192	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	0.0	23.8	54.0	0.0	0.0	46.6	20.7	16.3	54.7	35.2	27.4
Incr Delay (d2), s/veh	15.4	0.0	0.5	17.8	0.0	0.0	31.6	0.2	0.0	35.4	7.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.1	0.4	0.0	0.0	7.1	5.8	0.2	0.2	11.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.9	0.0	24.3	71.8	0.0	0.0	78.1	20.9	16.3	90.1	42.7	27.7
LnGrp LOS	E	A	C	E	A	A	E	C	B	F	D	C
Approach Vol, veh/h		85			12			930			1053	
Approach Delay, s/veh		34.8			71.8			33.3			41.2	
Approach LOS		C			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	44.0	19.9	40.3	6.8	43.2	5.1	55.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	2.8	5.3	15.5	31.9	3.3	0.0	2.3	18.8
Green Ext Time (p_c), s	0.0	0.2	0.0	3.9	0.0	0.0	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

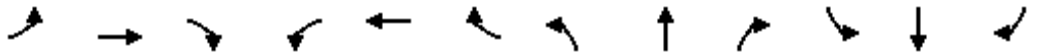


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	23	37	2	328	992	6	890	195
v/c Ratio	0.12	0.09	0.01	1.82	0.50	0.03	0.63	0.26
Control Delay	21.4	0.4	20.0	411.2	6.8	21.2	11.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	0.4	20.0	411.2	6.8	21.2	11.8	2.4
Queue Length 50th (ft)	5	0	1	~132	48	1	84	0
Queue Length 95th (ft)	23	0	5	#310	156	11	126	20
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	619	823	663	180	3214	416	3223	1442
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.00	1.82	0.31	0.01	0.28	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

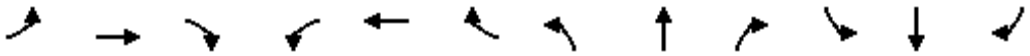
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	834	19	5	765	168
Future Volume (veh/h)	20	0	32	1	0	1	282	834	19	5	765	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	970	22	6	890	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	330	0	175	184	31	86	197	1790	41	13	1424	635
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.12	0.55	0.55	0.01	0.44	0.44
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3271	74	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	485	507	6	890	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1709	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	7.9	7.9	0.2	8.8	3.6
Cycle Q Clear(g_c), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	7.9	7.9	0.2	8.8	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	330	0	175	301	0	0	197	895	935	13	1424	635
V/C Ratio(X)	0.07	0.00	0.21	0.01	0.00	0.00	1.66	0.54	0.54	0.45	0.63	0.31
Avail Cap(c_a), veh/h	847	0	754	838	0	0	197	2891	3019	453	6293	2807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	16.5	16.1	0.0	0.0	18.3	6.1	6.1	20.5	9.1	7.7
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.0	320.0	0.5	0.5	22.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	18.9	1.0	1.0	0.1	1.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	0.0	17.1	16.1	0.0	0.0	338.3	6.6	6.6	43.0	9.6	7.9
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1320			1091	
Approach Delay, s/veh		16.9			16.1			89.0			9.5	
Approach LOS		B			B			F			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	9.5	22.6		9.5	4.8	27.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	5.0	80.0		21.5	11.5	73.5				
Max Q Clear Time (g_c+I1), s		3.0	7.0	10.8		2.0	2.2	9.9				
Green Ext Time (p_c), s		0.2	0.0	7.3		0.0	0.0	6.4				

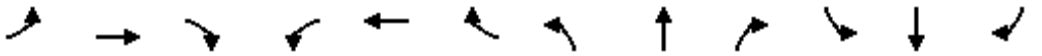
Intersection Summary												
HCM 6th Ctrl Delay			52.1									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	98	180	234	66	146	242	195	908	74	196	614	52
v/c Ratio	0.79	0.15	0.34	0.61	0.13	0.37	0.81	0.87	0.14	0.90	0.62	0.12
Control Delay	97.0	29.6	5.3	81.5	30.6	5.6	77.3	50.3	4.8	94.4	40.7	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.0	29.6	5.3	81.5	30.6	5.6	77.3	50.3	4.8	94.4	40.7	33.0
Queue Length 50th (ft)	81	54	0	54	44	0	155	363	0	162	229	31
Queue Length 95th (ft)	#185	86	58	#117	73	60	#270	447	26	#315	293	64
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	126	1198	685	115	1104	655	271	1184	586	219	1080	483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.15	0.34	0.57	0.13	0.37	0.72	0.77	0.13	0.89	0.57	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	167	218	61	136	225	181	844	69	182	571	48
Future Volume (veh/h)	91	167	218	61	136	225	181	844	69	182	571	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	98	180	234	66	146	242	195	908	74	196	614	52
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	120	1217	543	83	1143	510	222	1038	463	220	1036	462
Arrive On Green	0.07	0.36	0.36	0.05	0.34	0.34	0.13	0.31	0.31	0.13	0.31	0.31
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	98	180	234	66	146	242	195	908	74	196	614	52
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	7.0	4.4	14.4	4.7	3.7	15.5	13.9	31.2	4.4	14.0	18.9	3.0
Cycle Q Clear(g_c), s	7.0	4.4	14.4	4.7	3.7	15.5	13.9	31.2	4.4	14.0	18.9	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	1217	543	83	1143	510	222	1038	463	220	1036	462
V/C Ratio(X)	0.82	0.15	0.43	0.79	0.13	0.47	0.88	0.87	0.16	0.89	0.59	0.11
Avail Cap(c_a), veh/h	131	1217	543	120	1143	510	282	1226	547	228	1119	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	26.2	29.3	57.3	27.7	31.6	51.9	39.8	30.6	52.1	35.6	30.2
Incr Delay (d2), s/veh	29.8	0.3	2.5	20.1	0.2	3.1	21.9	6.4	0.2	31.3	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	1.7	5.3	2.4	1.4	5.8	7.0	13.1	1.5	7.5	7.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.6	26.4	31.8	77.3	27.9	34.7	73.9	46.3	30.7	83.4	36.4	30.3
LnGrp LOS	F	C	C	E	C	C	E	D	C	F	D	C
Approach Vol, veh/h		512			454			1177			862	
Approach Delay, s/veh		40.2			38.7			49.9			46.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	48.7	20.5	42.1	13.2	46.0	20.5	42.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	6.7	16.4	15.9	20.9	9.0	17.5	16.0	33.2
Green Ext Time (p_c), s	0.0	1.7	0.2	3.6	0.0	1.6	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	5	2	0	1	17	154	1	0	121	56
Future Vol, veh/h	57	0	5	2	0	1	17	154	1	0	121	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	0	5	2	0	1	18	164	1	0	129	60

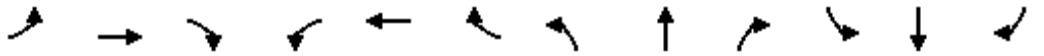
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	5	0	0	224	130	3	212	132	1
Stage 1	-	-	-	-	-	-	125	125	-	5	5	-
Stage 2	-	-	-	-	-	-	99	5	-	207	127	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1596	-	-	1590	-	-	723	753	1069	736	751	1072
Stage 1	-	-	-	-	-	-	869	785	-	1007	884	-
Stage 2	-	-	-	-	-	-	898	884	-	786	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1590	-	-	573	724	1069	590	722	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	724	-	590	722	-
Stage 1	-	-	-	-	-	-	836	755	-	969	883	-
Stage 2	-	-	-	-	-	-	724	883	-	591	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	4.8	11.9	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	707	1596	-	-	1590	-	-	805
HCM Lane V/C Ratio	0.259	0.038	-	-	0.001	-	-	0.234
HCM Control Delay (s)	11.9	7.3	0	-	7.3	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-	-	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	64	337	34	26	574	100	89	147
v/c Ratio	0.22	0.20	0.04	0.10	0.43	0.15	0.22	0.42
Control Delay	21.2	8.0	2.5	22.3	13.6	4.4	16.7	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	8.0	2.5	22.3	13.6	4.4	16.7	19.7
Queue Length 50th (ft)	15	18	0	6	64	0	19	32
Queue Length 95th (ft)	51	70	9	28	128	26	56	88
Internal Link Dist (ft)		2540			1252		326	432
Turn Bay Length (ft)	310		300	315		155		
Base Capacity (vph)	1065	2909	1309	1065	2909	1316	1439	1235
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.12	0.03	0.02	0.20	0.08	0.06	0.12

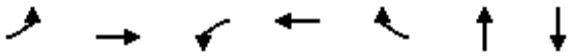
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	317	32	24	540	94	13	65	6	64	57	17
Future Volume (veh/h)	60	317	32	24	540	94	13	65	6	64	57	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	64	337	34	26	574	100	14	69	6	68	61	18
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	119	1257	561	56	1132	505	164	224	18	272	116	30
Arrive On Green	0.07	0.37	0.37	0.03	0.33	0.33	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	170	1453	117	632	749	193
Grp Volume(v), veh/h	64	337	34	26	574	100	89	0	0	147	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1740	0	0	1573	0	0
Q Serve(g_s), s	1.1	2.1	0.4	0.4	4.0	1.4	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	1.1	2.1	0.4	0.4	4.0	1.4	1.3	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.07	0.46		0.12
Lane Grp Cap(c), veh/h	119	1257	561	56	1132	505	407	0	0	418	0	0
V/C Ratio(X)	0.54	0.27	0.06	0.46	0.51	0.20	0.22	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	1545	4509	2011	1545	4509	2011	2377	0	0	2169	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.6	6.7	6.2	14.3	8.1	7.3	11.3	0.0	0.0	11.8	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.1	0.0	5.9	0.4	0.2	0.3	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.2	0.6	0.2	0.4	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	6.8	6.3	20.2	8.5	7.4	11.6	0.0	0.0	12.3	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		435			700			89			147	
Approach Delay, s/veh		8.3			8.8			11.6			12.3	
Approach LOS		A			A			B			B	

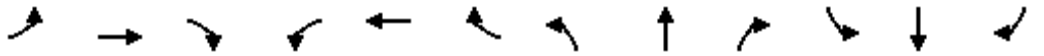
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	15.5		9.2	6.6	14.4		9.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.4	4.1		4.5	3.1	6.0		3.3				
Green Ext Time (p_c), s	0.0	2.0		0.9	0.1	3.9		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		9.2	
HCM 6th LOS		A	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	94	416	165	460	186	280	246
v/c Ratio	0.37	0.49	0.53	0.41	0.30	0.54	0.63
Control Delay	39.4	27.7	38.8	24.1	5.5	25.4	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	27.7	38.8	24.1	5.5	25.4	30.1
Queue Length 50th (ft)	40	82	70	89	0	98	90
Queue Length 95th (ft)	97	148	146	156	33	179	172
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	434	1487	664	1969	958	860	657
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.28	0.25	0.23	0.19	0.33	0.37

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	285	48	132	368	149	33	129	62	87	69	41
Future Volume (veh/h)	75	285	48	132	368	149	33	129	62	87	69	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	94	356	60	165	460	186	41	161	78	109	86	51
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	229	825	138	273	1049	468	109	266	117	219	156	75
Arrive On Green	0.13	0.28	0.28	0.16	0.31	0.31	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1711	2926	489	1711	3413	1522	152	1061	468	518	622	298
Grp Volume(v), veh/h	94	206	210	165	460	186	280	0	0	246	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1708	1711	1706	1522	1681	0	0	1439	0	0
Q Serve(g_s), s	2.9	5.8	5.9	5.2	6.3	5.6	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	2.9	5.8	5.9	5.2	6.3	5.6	8.4	0.0	0.0	8.6	0.0	0.0
Prop In Lane	1.00		0.29	1.00		1.00	0.15		0.28	0.44		0.21
Lane Grp Cap(c), veh/h	229	481	482	273	1049	468	492	0	0	449	0	0
V/C Ratio(X)	0.41	0.43	0.44	0.60	0.44	0.40	0.57	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	557	964	965	849	2513	1121	1187	0	0	1040	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.2	17.1	17.2	22.8	16.2	16.0	19.6	0.0	0.0	19.5	0.0	0.0
Incr Delay (d2), s/veh	1.2	2.2	2.2	2.2	1.0	2.0	3.7	0.0	0.0	3.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.1	2.1	1.9	2.1	1.8	3.5	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	19.3	19.4	25.0	17.2	17.9	23.3	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		510			811			280			246	
Approach Delay, s/veh		20.3			19.0			23.3			23.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.3	23.5		21.6	11.8	25.0		21.6				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	7.2	7.9		10.4	4.9	8.3		10.6				
Green Ext Time (p_c), s	0.4	5.4		4.2	0.2	9.7		3.8				

Intersection Summary			
HCM 6th Ctrl Delay		20.6	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	1	0	2	0
Future Vol, veh/h	0	0	1	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	0	2	0	4	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1450	-	-	-	950	1003
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1450	-	-	-	950	1003
Mov Cap-2 Maneuver	-	-	-	-	950	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1450	-	-	-	950
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	335	6	4	641	0	3	0	2	0	0	0
Future Vol, veh/h	0	335	6	4	641	0	3	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	372	7	4	712	0	3	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	712	0	0	379	0	0	740	1096	190	906	1099	356
Stage 1	-	-	-	-	-	-	376	376	-	720	720	-
Stage 2	-	-	-	-	-	-	364	720	-	186	379	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	838	-	-	1127	-	-	292	201	798	220	201	621
Stage 1	-	-	-	-	-	-	599	598	-	369	414	-
Stage 2	-	-	-	-	-	-	609	414	-	778	596	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	838	-	-	1127	-	-	291	200	798	219	200	621
Mov Cap-2 Maneuver	-	-	-	-	-	-	291	200	-	219	200	-
Stage 1	-	-	-	-	-	-	599	598	-	369	412	-
Stage 2	-	-	-	-	-	-	607	412	-	776	596	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.4	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	838	-	-	1127	-	-	-
HCM Lane V/C Ratio	0.014	-	-	-	0.004	-	-	-
HCM Control Delay (s)	14.4	0	-	-	8.2	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	63	30	25	97	4	17	31	7	2	57	8
Future Vol, veh/h	5	63	30	25	97	4	17	31	7	2	57	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	88	42	35	135	6	24	43	10	3	79	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	9	8.5	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	5%	20%	3%
Vol Thru, %	56%	64%	77%	85%
Vol Right, %	13%	31%	3%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	98	126	67
LT Vol	17	5	25	2
Through Vol	31	63	97	57
RT Vol	7	30	4	8
Lane Flow Rate	76	136	175	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.103	0.169	0.225	0.124
Departure Headway (Hd)	4.863	4.481	4.625	4.791
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	736	800	777	747
Service Time	2.897	2.511	2.653	2.824
HCM Lane V/C Ratio	0.103	0.17	0.225	0.124
HCM Control Delay	8.5	8.4	9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.9	0.4

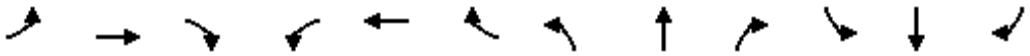
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	0	0	0	0	0	62	0	0	117	0
Future Vol, veh/h	1	0	0	0	0	0	0	62	0	0	117	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	0	0	0	0	0	0	95	0	0	180	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	275	275	180	275	275	95	180	0	0	95	0	0
Stage 1	180	180	-	95	95	-	-	-	-	-	-	-
Stage 2	95	95	-	180	180	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	665	622	848	665	622	945	1360	-	-	1462	-	-
Stage 1	808	739	-	897	805	-	-	-	-	-	-	-
Stage 2	897	805	-	808	739	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	665	622	848	665	622	945	1360	-	-	1462	-	-
Mov Cap-2 Maneuver	665	622	-	665	622	-	-	-	-	-	-	-
Stage 1	808	739	-	897	805	-	-	-	-	-	-	-
Stage 2	897	805	-	808	739	-	-	-	-	-	-	-

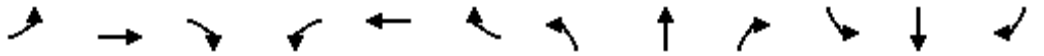
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	0	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1360	-	-	665	-	1462	-	-
HCM Lane V/C Ratio	-	-	-	0.002	-	-	-	-
HCM Control Delay (s)	0	-	-	10.4	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	24	311	128	124	537	48	187	103	71	19	149	29
v/c Ratio	0.13	0.44	0.41	0.43	0.48	0.10	0.53	0.07	0.11	0.11	0.46	0.10
Control Delay	34.6	27.9	31.4	33.5	21.2	20.0	32.1	17.0	18.1	34.8	32.7	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	27.9	31.4	33.5	21.2	20.0	32.1	17.0	18.1	34.8	32.7	27.7
Queue Length 50th (ft)	9	58	46	45	74	11	67	11	16	7	54	10
Queue Length 95th (ft)	36	120	115	115	184	46	157	39	59	31	131	37
Internal Link Dist (ft)		349			1207			1910			486	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	443	2202	985	443	2202	985	557	1635	731	557	858	729
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.14	0.13	0.28	0.24	0.05	0.34	0.06	0.10	0.03	0.17	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	280	115	112	483	43	168	93	64	17	134	26
Future Volume (veh/h)	22	280	115	112	483	43	168	93	64	17	134	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	24	311	128	124	537	48	187	103	71	19	149	29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	51	689	307	162	911	406	247	896	400	41	256	217
Arrive On Green	0.03	0.20	0.20	0.09	0.26	0.26	0.14	0.26	0.26	0.02	0.14	0.14
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	1826	1547
Grp Volume(v), veh/h	24	311	128	124	537	48	187	103	71	19	149	29
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1826	1547
Q Serve(g_s), s	0.6	3.3	3.1	2.9	5.7	1.0	4.4	1.0	1.5	0.5	3.2	0.7
Cycle Q Clear(g_c), s	0.6	3.3	3.1	2.9	5.7	1.0	4.4	1.0	1.5	0.5	3.2	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	689	307	162	911	406	247	896	400	41	256	217
V/C Ratio(X)	0.48	0.45	0.42	0.77	0.59	0.12	0.76	0.11	0.18	0.46	0.58	0.13
Avail Cap(c_a), veh/h	638	3164	1411	638	3164	1411	803	2342	1045	803	1233	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	14.9	14.8	18.7	13.6	11.8	17.4	12.0	12.2	20.3	17.0	15.9
Incr Delay (d2), s/veh	6.8	0.5	0.9	7.4	0.6	0.1	4.7	0.1	0.2	7.9	2.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.0	0.9	1.2	1.5	0.3	1.7	0.3	0.4	0.2	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	15.4	15.7	26.0	14.2	12.0	22.1	12.0	12.4	28.2	19.1	16.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		463			709			361			197	
Approach Delay, s/veh		16.0			16.1			17.3			19.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	12.9	10.5	10.4	5.7	15.6	5.5	15.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	4.9	5.3	6.4	5.2	2.6	7.7	2.5	3.5
Green Ext Time (p_c), s	0.2	2.2	0.4	0.8	0.0	3.4	0.0	0.7

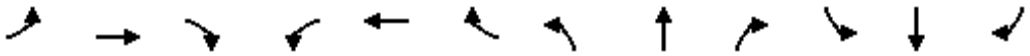
Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	23	135	21	65	60	255	72	59	331	25
Future Vol, veh/h	5	2	23	135	21	65	60	255	72	59	331	25
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	6	3	29	173	27	83	77	327	92	76	424	32
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

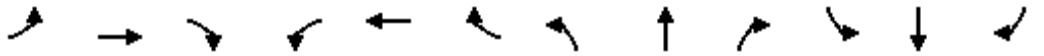
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.8	15	14.7	16.5
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	17%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	7%	0%	24%	0%	100%	82%
Vol Right, %	0%	0%	46%	77%	0%	76%	0%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	170	157	30	135	86	59	221	135
LT Vol	60	0	0	5	135	0	59	0	0
Through Vol	0	170	85	2	0	21	0	221	110
RT Vol	0	0	72	23	0	65	0	0	25
Lane Flow Rate	77	218	201	38	173	110	76	283	174
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.169	0.447	0.394	0.088	0.404	0.225	0.164	0.573	0.345
Departure Headway (Hd)	7.889	7.378	7.05	8.273	8.394	7.356	7.8	7.289	7.157
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	488	511	432	429	487	460	495	503
Service Time	5.635	5.124	4.795	6.038	6.144	5.106	5.544	5.034	4.902
HCM Lane V/C Ratio	0.169	0.447	0.393	0.088	0.403	0.226	0.165	0.572	0.346
HCM Control Delay	12.2	16	14.3	11.8	16.8	12.2	12.1	19.4	13.6
HCM Lane LOS	B	C	B	B	C	B	B	C	B
HCM 95th-tile Q	0.6	2.3	1.9	0.3	1.9	0.9	0.6	3.5	1.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	2	48	242	33	7	213	400	52	2	453	133
v/c Ratio	0.20	0.01	0.29	0.61	0.05	0.01	0.59	0.25	0.07	0.02	0.62	0.41
Control Delay	38.0	31.5	36.9	34.3	20.6	21.2	36.0	13.8	13.6	36.0	30.8	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	31.5	36.9	34.3	20.6	21.2	36.0	13.8	13.6	36.0	30.8	29.9
Queue Length 50th (ft)	13	1	21	100	9	2	90	54	12	1	101	54
Queue Length 95th (ft)	37	7	50	175	32	12	160	99	37	7	139	97
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	149	863	734	419	1148	976	372	2120	948	118	1612	721
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.00	0.07	0.58	0.03	0.01	0.57	0.19	0.05	0.02	0.28	0.18

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	2	40	201	27	6	177	332	43	2	376	110
Future Volume (veh/h)	24	2	40	201	27	6	177	332	43	2	376	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	29	2	48	242	33	7	213	400	52	2	453	133
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	58	181	153	306	441	374	271	1297	579	5	765	341
Arrive On Green	0.03	0.10	0.10	0.17	0.24	0.24	0.15	0.37	0.37	0.00	0.22	0.22
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	29	2	48	242	33	7	213	400	52	2	453	133
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	0.8	0.0	1.5	6.7	0.7	0.2	6.0	4.1	1.1	0.1	5.9	3.7
Cycle Q Clear(g_c), s	0.8	0.0	1.5	6.7	0.7	0.2	6.0	4.1	1.1	0.1	5.9	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	58	181	153	306	441	374	271	1297	579	5	765	341
V/C Ratio(X)	0.50	0.01	0.31	0.79	0.07	0.02	0.78	0.31	0.09	0.42	0.59	0.39
Avail Cap(c_a), veh/h	217	1251	1060	609	1663	1409	540	3070	1369	172	2335	1042
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	20.7	21.4	20.1	15.0	14.8	20.7	11.4	10.4	25.4	17.9	17.0
Incr Delay (d2), s/veh	6.5	0.0	1.2	4.6	0.1	0.0	5.0	0.1	0.1	48.8	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	2.9	0.3	0.1	2.5	1.3	0.3	0.1	2.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	20.8	22.5	24.7	15.1	14.8	25.7	11.5	10.5	74.1	18.6	17.7
LnGrp LOS	C	C	C	C	B	B	C	B	B	E	B	B
Approach Vol, veh/h		79			282			665			588	
Approach Delay, s/veh		25.5			23.3			16.0			18.6	
Approach LOS		C			C			B			B	

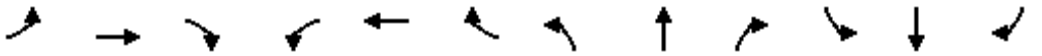
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	9.5	12.4	15.6	6.2	16.7	4.6	23.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	8.7	3.5	8.0	7.9	2.8	2.7	2.1	6.1
Green Ext Time (p_c), s	0.5	0.1	0.3	3.2	0.0	0.2	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	58	455	96	443	114	258	586	118	81	592	152
v/c Ratio	0.45	0.36	0.72	0.34	0.17	0.87	0.51	0.20	0.55	0.75	0.43
Control Delay	60.8	15.9	78.7	26.9	3.6	73.8	31.1	5.7	62.6	44.9	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	15.9	78.7	26.9	3.6	73.8	31.1	5.7	62.6	44.9	39.2
Queue Length 50th (ft)	39	66	66	120	0	177	177	0	54	201	90
Queue Length 95th (ft)	79	104	#141	165	21	#309	211	32	102	236	137
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	145	1253	135	1295	664	295	1433	710	169	1181	528
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.36	0.71	0.34	0.17	0.87	0.41	0.17	0.48	0.50	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



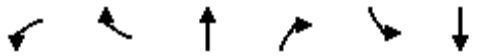
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	202	176	80	368	95	214	486	98	67	491	126
Future Volume (veh/h)	48	202	176	80	368	95	214	486	98	67	491	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	58	243	212	96	443	114	258	586	118	81	592	152
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	74	663	555	120	1376	614	288	1132	505	103	762	340
Arrive On Green	0.04	0.37	0.37	0.07	0.40	0.40	0.17	0.33	0.33	0.06	0.22	0.22
Sat Flow, veh/h	1739	1791	1499	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	58	235	220	96	443	114	258	586	118	81	592	152
Grp Sat Flow(s),veh/h/ln	1739	1735	1556	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.4	10.1	10.7	5.6	9.1	4.9	14.9	14.1	5.7	4.7	16.5	8.7
Cycle Q Clear(g_c), s	3.4	10.1	10.7	5.6	9.1	4.9	14.9	14.1	5.7	4.7	16.5	8.7
Prop In Lane	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	642	576	120	1376	614	288	1132	505	103	762	340
V/C Ratio(X)	0.78	0.37	0.38	0.80	0.32	0.19	0.89	0.52	0.23	0.78	0.78	0.45
Avail Cap(c_a), veh/h	154	642	576	144	1376	614	313	1516	676	179	1250	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	23.6	23.7	47.1	21.4	20.2	42.0	28.1	25.2	47.7	37.7	34.7
Incr Delay (d2), s/veh	16.1	1.6	1.9	22.6	0.6	0.7	25.0	0.4	0.2	12.2	1.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.1	3.9	3.0	3.5	1.8	8.2	5.7	2.1	2.3	6.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.8	25.2	25.7	69.7	22.1	20.9	67.0	28.4	25.5	59.9	39.4	35.6
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		513			653			962			825	
Approach Delay, s/veh		29.9			28.9			38.4			40.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	42.5	21.5	27.1	8.9	45.2	10.6	38.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	7.6	12.7	16.9	18.5	5.4	11.1	6.7	16.1
Green Ext Time (p_c), s	0.0	2.4	0.1	4.1	0.0	2.9	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	85	75	986	33	587
v/c Ratio	0.23	0.19	0.59	0.11	0.24
Control Delay	40.3	9.7	23.2	43.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	9.7	23.2	43.3	6.6
Queue Length 50th (ft)	54	0	275	22	76
Queue Length 95th (ft)	88	29	282	45	84
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	376	394	1680	290	2398
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	0.19	0.59	0.11	0.24

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	67	59	746	33	26	464
Future Volume (veh/h)	67	59	746	33	26	464
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	85	75	944	42	33	587
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1664	74	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3446	149	1725	3532
Grp Volume(v), veh/h	85	75	484	502	33	587
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1784	1725	1721
Q Serve(g_s), s	4.8	4.8	23.7	23.7	1.9	7.3
Cycle Q Clear(g_c), s	4.8	4.8	23.7	23.7	1.9	7.3
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	381	339	853	885	295	2423
V/C Ratio(X)	0.22	0.22	0.57	0.57	0.11	0.24
Avail Cap(c_a), veh/h	381	339	853	885	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	38.3	21.2	21.2	42.1	6.3
Incr Delay (d2), s/veh	1.4	1.5	0.9	0.9	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	9.6	9.9	0.9	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.7	39.8	22.1	22.1	42.8	6.6
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	160		986			620
Approach Delay, s/veh	39.7		22.1			8.5
Approach LOS	D		C			A

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				89.0		31.0	25.0	64.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				84.5		26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s				9.3		6.8	3.9	25.7
Green Ext Time (p_c), s				4.7		0.4	0.0	7.7

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	392	9	83	696	0	63	0	82	0	0	0
Future Vol, veh/h	0	392	9	83	696	0	63	0	82	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	445	10	94	791	0	72	0	93	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	791	0	0	455	0	0	1429	1429	450	1476	1434	791
Stage 1	-	-	-	-	-	-	450	450	-	979	979	-
Stage 2	-	-	-	-	-	-	979	979	-	497	455	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	829	-	-	1106	-	-	112	135	609	104	134	390
Stage 1	-	-	-	-	-	-	589	572	-	301	328	-
Stage 2	-	-	-	-	-	-	301	328	-	555	569	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	829	-	-	1106	-	-	99	114	609	78	114	390
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	114	-	78	114	-
Stage 1	-	-	-	-	-	-	589	572	-	301	278	-
Stage 2	-	-	-	-	-	-	255	278	-	470	569	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	87.6	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	188	829	-	-	1106	-	-	-
HCM Lane V/C Ratio	0.876	-	-	-	0.085	-	-	-
HCM Control Delay (s)	87.6	0	-	-	8.6	0	-	0
HCM Lane LOS	F	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	6.5	0	-	-	0.3	-	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	101	2	41	175	8	2	10	43	25	6	15
Future Vol, veh/h	10	101	2	41	175	8	2	10	43	25	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	136	3	55	236	11	3	14	58	34	8	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	247	0	0	139	0	0	532	523	138	554	519	242
Stage 1	-	-	-	-	-	-	166	166	-	352	352	-
Stage 2	-	-	-	-	-	-	366	357	-	202	167	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1325	-	-	1451	-	-	460	460	913	445	463	799
Stage 1	-	-	-	-	-	-	838	763	-	667	633	-
Stage 2	-	-	-	-	-	-	655	630	-	802	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1325	-	-	1451	-	-	426	437	913	392	440	799
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	437	-	392	440	-
Stage 1	-	-	-	-	-	-	829	755	-	660	609	-
Stage 2	-	-	-	-	-	-	606	606	-	730	754	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.4	10.4	13.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	426	757	1325	-	-	1451	-	-	478
HCM Lane V/C Ratio	0.006	0.095	0.01	-	-	0.038	-	-	0.13
HCM Control Delay (s)	13.5	10.3	7.7	-	-	7.6	-	-	13.7
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.3	0	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	33	14	54	67	1	21	1	24	0	0	0
Future Vol, veh/h	0	33	14	54	67	1	21	1	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	39	17	64	80	1	25	1	29	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	81	0	0	56	0	0	257	257	48	272	265	81
Stage 1	-	-	-	-	-	-	48	48	-	209	209	-
Stage 2	-	-	-	-	-	-	209	209	-	63	56	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1517	-	-	1549	-	-	696	647	1021	680	640	979
Stage 1	-	-	-	-	-	-	965	855	-	793	729	-
Stage 2	-	-	-	-	-	-	793	729	-	948	848	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1517	-	-	1549	-	-	673	619	1021	639	612	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	673	619	-	639	612	-
Stage 1	-	-	-	-	-	-	965	855	-	793	698	-
Stage 2	-	-	-	-	-	-	759	698	-	920	848	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.3	9.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	817	1517	-	-	1549	-	-	-
HCM Lane V/C Ratio	0.067	-	-	-	0.042	-	-	-
HCM Control Delay (s)	9.7	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	-

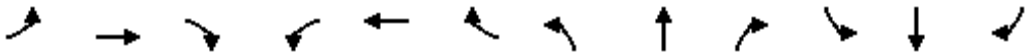
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	50	0	0	72	0
Future Vol, veh/h	0	0	0	0	0	0	0	50	0	0	72	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0	0	63	0	0	90	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	153	153	90	153	153	63	90	0	0	63	0	0
Stage 1	90	90	-	63	63	-	-	-	-	-	-	-
Stage 2	63	63	-	90	90	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	812	737	965	812	737	999	1499	-	-	1533	-	-
Stage 1	915	818	-	945	840	-	-	-	-	-	-	-
Stage 2	945	840	-	915	818	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	812	737	965	812	737	999	1499	-	-	1533	-	-
Mov Cap-2 Maneuver	812	737	-	812	737	-	-	-	-	-	-	-
Stage 1	915	818	-	945	840	-	-	-	-	-	-	-
Stage 2	945	840	-	915	818	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	-	-	1533	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

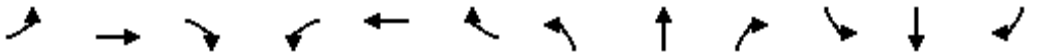


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	167	344	95	233	677	214	151	314	185	225	406	157
v/c Ratio	0.87	0.53	0.15	0.88	0.93	0.29	1.30	0.78	0.38	1.09	0.43	0.29
Control Delay	87.3	33.2	2.2	78.8	53.2	6.0	228.4	54.3	7.2	133.7	34.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.3	33.2	2.2	78.8	53.2	6.0	228.4	54.3	7.2	133.7	34.3	6.0
Queue Length 50th (ft)	117	190	0	162	446	9	~136	210	0	~177	124	0
Queue Length 95th (ft)	#218	269	5	#275	#618	42	#247	260	33	#303	145	30
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	193	655	644	265	731	738	116	577	618	207	1280	672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.53	0.15	0.88	0.93	0.29	1.30	0.54	0.30	1.09	0.32	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	272	75	184	535	169	119	248	146	178	321	124
Future Volume (veh/h)	132	272	75	184	535	169	119	248	146	178	321	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	344	95	233	677	214	151	314	185	225	406	157
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	683	579	262	753	638	120	372	315	215	895	399
Arrive On Green	0.11	0.37	0.37	0.15	0.40	0.40	0.07	0.20	0.20	0.12	0.25	0.25
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	167	344	95	233	677	214	151	314	185	225	406	157
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	9.9	15.3	4.3	13.7	36.3	10.0	7.2	17.3	11.3	12.9	10.3	8.8
Cycle Q Clear(g_c), s	9.9	15.3	4.3	13.7	36.3	10.0	7.2	17.3	11.3	12.9	10.3	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	683	579	262	753	638	120	372	315	215	895	399
V/C Ratio(X)	0.85	0.50	0.16	0.89	0.90	0.34	1.26	0.84	0.59	1.05	0.45	0.39
Avail Cap(c_a), veh/h	200	683	579	275	753	638	120	594	503	215	1318	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	26.4	22.9	44.8	29.9	22.1	49.9	41.3	38.9	47.1	33.8	33.2
Incr Delay (d2), s/veh	27.8	2.6	0.6	27.0	15.8	1.4	167.9	6.3	1.7	74.7	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	6.8	1.6	7.7	17.9	3.8	8.7	8.3	4.4	10.0	4.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.5	29.1	23.5	71.8	45.7	23.5	217.9	47.6	40.6	121.8	34.2	33.9
LnGrp LOS	E	C	C	E	D	C	F	D	D	F	C	C
Approach Vol, veh/h		606			1124			650			788	
Approach Delay, s/veh		40.7			46.9			85.2			59.1	
Approach LOS		D			D			F			E	

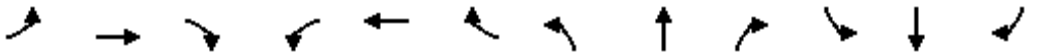
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	43.6	11.7	31.5	16.3	47.6	17.4	25.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	15.7	17.3	9.2	12.3	11.9	38.3	14.9	19.3
Green Ext Time (p_c), s	0.1	1.9	0.0	3.0	0.0	2.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	56.6
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	419	279	247	155	413	131	50	724
v/c Ratio	0.53	0.72	0.86	0.31	0.78	0.69	0.22	0.58	0.86
Control Delay	67.0	35.6	71.5	22.7	76.7	42.8	5.6	82.2	54.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	35.6	71.5	22.7	76.7	42.8	5.6	82.2	54.1
Queue Length 50th (ft)	54	225	208	119	118	286	0	39	282
Queue Length 95th (ft)	99	324	#314	175	#202	381	37	#90	#344
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	155	585	357	792	214	601	603	86	842
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.72	0.78	0.31	0.72	0.69	0.22	0.58	0.86

Intersection Summary

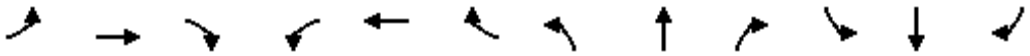
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	109	251	240	162	51	133	355	113	43	551	71
Future Volume (veh/h)	62	109	251	240	162	51	133	355	113	43	551	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	127	292	279	188	59	155	413	131	50	641	83
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	159	365	309	597	187	183	595	504	64	795	103
Arrive On Green	0.05	0.32	0.32	0.17	0.44	0.44	0.10	0.32	0.32	0.04	0.25	0.25
Sat Flow, veh/h	1781	504	1158	1781	1365	428	1781	1870	1585	1781	3164	409
Grp Volume(v), veh/h	72	0	419	279	0	247	155	413	131	50	360	364
Grp Sat Flow(s),veh/h/ln	1781	0	1662	1781	0	1793	1781	1870	1585	1781	1777	1797
Q Serve(g_s), s	4.6	0.0	26.5	17.6	0.0	10.3	9.8	22.2	7.1	3.2	21.8	21.9
Cycle Q Clear(g_c), s	4.6	0.0	26.5	17.6	0.0	10.3	9.8	22.2	7.1	3.2	21.8	21.9
Prop In Lane	1.00		0.70	1.00		0.24	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	92	0	524	309	0	784	183	595	504	64	446	451
V/C Ratio(X)	0.78	0.00	0.80	0.90	0.00	0.32	0.85	0.69	0.26	0.78	0.81	0.81
Avail Cap(c_a), veh/h	160	0	524	366	0	784	220	595	504	88	446	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	0.0	36.0	46.5	0.0	21.1	50.6	34.2	29.1	54.8	40.3	40.4
Incr Delay (d2), s/veh	13.1	0.0	12.1	22.4	0.0	1.1	21.9	6.6	1.2	24.9	14.3	14.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	12.0	9.5	0.0	4.3	5.4	10.7	2.8	1.8	10.9	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	0.0	48.0	68.8	0.0	22.1	72.4	40.8	30.3	79.8	54.7	54.7
LnGrp LOS	E	A	D	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		491			526			699			774	
Approach Delay, s/veh		50.8			46.9			45.9			56.3	
Approach LOS		D			D			D			E	

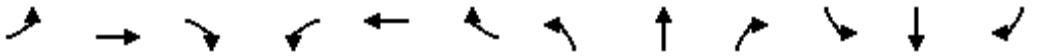
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.4	40.7	16.3	33.3	10.5	54.7	8.6	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	19.6	28.5	11.8	23.9	6.6	12.3	5.2	24.2
Green Ext Time (p_c), s	0.3	1.5	0.1	1.6	0.0	1.4	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	50.3
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	55	276	49	185	316	150	250	540	179	343	836	109
v/c Ratio	0.49	0.28	0.09	0.77	0.24	0.22	0.82	0.68	0.38	0.87	0.86	0.25
Control Delay	81.5	42.0	0.3	80.4	33.1	5.9	77.9	54.1	14.5	74.3	57.2	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.5	42.0	0.3	80.4	33.1	5.9	77.9	54.1	14.5	74.3	57.2	41.3
Queue Length 50th (ft)	51	108	0	169	113	0	228	244	28	310	389	79
Queue Length 95th (ft)	98	153	0	250	153	44	318	299	86	415	453	129
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	129	1000	549	295	1324	686	373	943	526	478	1153	515
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.28	0.09	0.63	0.24	0.22	0.67	0.57	0.34	0.72	0.73	0.21

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	237	42	159	272	129	215	464	154	295	719	94
Future Volume (veh/h)	47	237	42	159	272	129	215	464	154	295	719	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	276	49	185	316	150	250	540	179	343	836	109
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	1093	488	213	1377	614	279	790	352	374	979	437
Arrive On Green	0.04	0.31	0.31	0.12	0.39	0.39	0.16	0.22	0.22	0.21	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	55	276	49	185	316	150	250	540	179	343	836	109
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.9	7.5	2.8	13.1	7.7	8.2	17.6	17.8	12.7	24.1	28.5	6.9
Cycle Q Clear(g_c), s	3.9	7.5	2.8	13.1	7.7	8.2	17.6	17.8	12.7	24.1	28.5	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	1093	488	213	1377	614	279	790	352	374	979	437
V/C Ratio(X)	0.77	0.25	0.10	0.87	0.23	0.24	0.90	0.68	0.51	0.92	0.85	0.25
Avail Cap(c_a), veh/h	138	1093	488	313	1377	614	396	999	446	508	1221	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	33.3	31.7	55.4	26.4	26.5	53.0	45.7	43.6	49.5	44.0	36.1
Incr Delay (d2), s/veh	16.3	0.6	0.4	15.9	0.4	0.9	17.0	1.4	1.1	17.8	5.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.2	1.1	6.6	3.2	3.2	9.0	7.8	5.0	12.3	12.8	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.2	33.8	32.1	71.2	26.8	27.5	70.0	47.0	44.8	67.3	49.0	36.4
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		380			651			969			1288	
Approach Delay, s/veh		39.9			39.6			52.5			52.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	43.9	24.6	39.8	9.6	54.1	31.4	33.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	37.0	28.5	44.0	9.9	49.6	36.5	36.0
Max Q Clear Time (g_c+I1), s	15.1	9.5	19.6	30.5	5.9	10.2	26.1	19.8
Green Ext Time (p_c), s	0.3	1.6	0.5	4.7	0.0	2.3	0.7	3.5

Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	61	2	0	112
Future Vol, veh/h	5	1	61	2	0	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	8	2	94	3	0	172

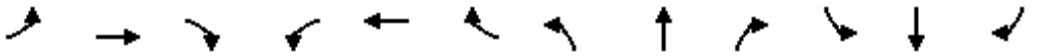
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	268	96	0	0	97	0
Stage 1	96	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	709	944	-	-	1460	-
Stage 1	913	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	709	944	-	-	1460	-
Mov Cap-2 Maneuver	709	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	844	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	740	1460	-
HCM Lane V/C Ratio	-	-	0.012	-	-
HCM Control Delay (s)	-	-	9.9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	41	836	62	793	49
v/c Ratio	0.11	0.43	0.44	0.35	0.14
Control Delay	12.0	13.4	57.3	6.5	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	13.4	57.3	6.5	9.8
Queue Length 50th (ft)	12	163	42	97	0
Queue Length 95th (ft)	32	228	87	125	29
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	357	1929	291	2649	358
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.43	0.21	0.30	0.14

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	766	3	57	730	0	11	0	34	0	0	0
Future Volume (veh/h)	38	766	3	57	730	0	11	0	34	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	41	833	3	62	793	0	12	0	37			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	450	2043	7	78	2296	0	78	0	241			
Arrive On Green	0.61	0.61	0.61	0.05	0.70	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	630	3344	12	1640	3358	0	367	0	1133			
Grp Volume(v), veh/h	41	408	428	62	793	0	49	0	0			
Grp Sat Flow(s),veh/h/ln	630	1636	1720	1640	1636	0	1500	0	0			
Q Serve(g_s), s	2.9	13.6	13.6	3.9	10.1	0.0	2.8	0.0	0.0			
Cycle Q Clear(g_c), s	3.4	13.6	13.6	3.9	10.1	0.0	2.8	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.24		0.76			
Lane Grp Cap(c), veh/h	450	1000	1051	78	2296	0	320	0	0			
V/C Ratio(X)	0.09	0.41	0.41	0.79	0.35	0.00	0.15	0.00	0.00			
Avail Cap(c_a), veh/h	450	1000	1051	303	2744	0	320	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	8.8	10.6	10.6	49.7	6.2	0.0	33.8	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.2	1.2	15.9	0.1	0.0	1.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.3	4.6	1.9	2.5	0.0	1.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.2	11.9	11.8	65.7	6.3	0.0	34.8	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		877			855			49				
Approach Delay, s/veh		11.7			10.6			34.8				
Approach LOS		B			B			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.6	69.0				78.6		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	5.9	15.6				12.1		4.8				
Green Ext Time (p_c), s	0.1	5.5				5.5		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	89	210	49	816	114	74	551
v/c Ratio	0.19	0.55	0.21	0.61	0.19	0.29	0.36
Control Delay	21.2	28.0	31.5	18.2	15.4	31.2	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	28.0	31.5	18.2	15.4	31.2	13.4
Queue Length 50th (ft)	25	67	16	122	27	25	72
Queue Length 95th (ft)	69	154	55	226	72	74	140
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	880	718	538	3138	1404	603	3174
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.29	0.09	0.26	0.08	0.12	0.17

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	61	17	86	60	39	43	718	100	65	485	0
Future Volume (veh/h)	1	61	17	86	60	39	43	718	100	65	485	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	1	69	19	98	68	44	49	816	114	74	551	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	92	276	75	250	126	65	90	1345	600	121	1405	0
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.05	0.39	0.39	0.07	0.41	0.00
Sat Flow, veh/h	6	1364	372	584	621	319	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	89	0	0	210	0	0	49	816	114	74	551	0
Grp Sat Flow(s),veh/h/ln	1742	0	0	1524	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	1.1	7.6	2.0	1.7	4.5	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	5.0	0.0	0.0	1.1	7.6	2.0	1.7	4.5	0.0
Prop In Lane	0.01		0.21	0.47		0.21	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	443	0	0	440	0	0	90	1345	600	121	1405	0
V/C Ratio(X)	0.20	0.00	0.00	0.48	0.00	0.00	0.54	0.61	0.19	0.61	0.39	0.00
Avail Cap(c_a), veh/h	1239	0	0	1111	0	0	710	5278	2354	796	5449	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.4	0.0	0.0	14.6	0.0	0.0	18.5	9.8	8.0	18.1	8.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.0	5.0	0.4	0.2	5.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.5	0.0	0.0	0.5	1.6	0.4	0.7	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	0.0	0.0	15.4	0.0	0.0	23.5	10.2	8.2	23.1	8.5	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	A	C	A	A
Approach Vol, veh/h		89			210			979			625	
Approach Delay, s/veh		13.7			15.4			10.6			10.3	
Approach LOS		B			B			B			B	

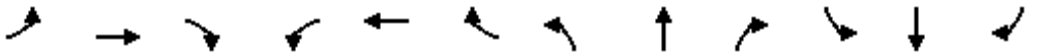
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.6	6.6	20.9		12.6	7.3	20.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	16.5	63.5		26.5	18.5	61.5				
Max Q Clear Time (g_c+I1), s		3.7	3.1	6.5		7.0	3.7	9.6				
Green Ext Time (p_c), s		0.4	0.1	3.5		1.2	0.1	6.1				

Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	283	429	121	117	347	127	215	692	171	105	720
v/c Ratio	0.83	0.44	0.23	0.59	0.50	0.31	0.80	0.68	0.32	0.67	0.87
Control Delay	63.3	34.6	5.5	60.0	43.4	8.0	67.7	37.0	14.0	72.1	47.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.3	34.6	5.5	60.0	43.4	8.0	67.7	37.0	14.0	72.1	47.2
Queue Length 50th (ft)	206	139	0	87	127	0	158	234	35	79	240
Queue Length 95th (ft)	#332	202	37	144	180	46	#275	305	92	#158	#329
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	411	981	533	411	692	416	313	1189	598	175	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.44	0.23	0.28	0.50	0.31	0.69	0.58	0.29	0.60	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	412	116	112	333	122	206	664	164	101	432	259
Future Volume (veh/h)	272	412	116	112	333	122	206	664	164	101	432	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	283	429	121	117	347	127	215	692	171	105	450	270
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	316	1085	484	146	744	332	247	1086	484	130	514	306
Arrive On Green	0.19	0.33	0.33	0.09	0.23	0.23	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	283	429	121	117	347	127	215	692	171	105	373	347
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	17.1	10.3	6.2	7.1	9.3	7.5	13.0	18.2	9.0	6.4	22.2	22.4
Cycle Q Clear(g_c), s	17.1	10.3	6.2	7.1	9.3	7.5	13.0	18.2	9.0	6.4	22.2	22.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	316	1085	484	146	744	332	247	1086	484	130	426	394
V/C Ratio(X)	0.89	0.40	0.25	0.80	0.47	0.38	0.87	0.64	0.35	0.81	0.87	0.88
Avail Cap(c_a), veh/h	444	1085	484	444	744	332	338	1279	571	189	491	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	26.5	25.1	45.8	34.3	33.6	42.6	29.2	26.1	46.4	36.4	36.5
Incr Delay (d2), s/veh	15.6	1.1	1.2	9.8	2.1	3.3	16.6	0.8	0.4	15.2	14.5	16.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	3.9	2.2	3.2	3.7	2.8	6.1	6.7	3.0	3.0	9.9	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	27.6	26.4	55.7	36.4	36.9	59.3	30.0	26.5	61.7	50.9	52.9
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		833			591			1078			825	
Approach Delay, s/veh		37.1			40.3			35.3			53.1	
Approach LOS		D			D			D			D	

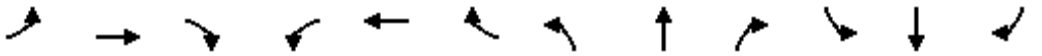
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	38.2	19.8	31.0	24.1	27.6	12.5	38.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	9.1	12.3	15.0	24.4	19.1	11.3	8.4	20.2
Green Ext Time (p_c), s	0.2	2.1	0.3	2.1	0.5	1.8	0.1	4.5

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	1	161	39	10	95	884	21	3	708	49
v/c Ratio	0.89	0.00	0.22	0.39	0.02	0.54	0.70	0.03	0.03	0.76	0.10
Control Delay	109.1	25.0	5.1	62.8	0.0	57.7	29.1	0.1	52.3	40.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	109.1	25.0	5.1	62.8	0.0	57.7	29.1	0.1	52.3	40.2	0.4
Queue Length 50th (ft)	71	0	0	25	0	61	238	0	2	230	0
Queue Length 95th (ft)	#204	2	47	67	0	124	361	0	13	312	0
Internal Link Dist (ft)		205					1421			2552	
Turn Bay Length (ft)	200		110	120	105	250		275	305		110
Base Capacity (vph)	119	1413	723	103	661	246	1586	758	103	1287	657
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.00	0.22	0.38	0.02	0.39	0.56	0.03	0.03	0.55	0.07

Intersection Summary

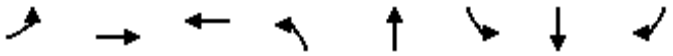
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	1	158	38	0	10	93	866	21	3	694	48
Future Volume (veh/h)	104	1	158	38	0	10	93	866	21	3	694	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	106	1	161	39	0	10	95	884	21	3	708	49
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	127	1445	644	55	1301	580	119	1096	489	7	871	389
Arrive On Green	0.08	0.44	0.44	0.03	0.00	0.40	0.07	0.33	0.33	0.00	0.27	0.27
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	106	1	161	39	0	10	95	884	21	3	708	49
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.2	0.0	6.7	2.3	0.0	0.4	5.5	23.8	0.9	0.2	19.6	2.5
Cycle Q Clear(g_c), s	6.2	0.0	6.7	2.3	0.0	0.4	5.5	23.8	0.9	0.2	19.6	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	1445	644	55	1301	580	119	1096	489	7	871	389
V/C Ratio(X)	0.83	0.00	0.25	0.71	0.00	0.02	0.80	0.81	0.04	0.46	0.81	0.13
Avail Cap(c_a), veh/h	127	1445	644	110	1301	580	263	1673	746	110	1369	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	15.1	17.0	46.3	0.0	17.7	44.2	29.3	21.7	48.1	33.3	27.0
Incr Delay (d2), s/veh	35.7	0.0	0.9	15.4	0.0	0.1	11.4	1.7	0.0	42.5	2.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	2.2	1.2	0.0	0.1	2.5	8.7	0.3	0.1	7.4	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.8	15.1	17.9	61.7	0.0	17.7	55.6	31.1	21.8	90.6	35.4	27.1
LnGrp LOS	E	B	B	E	A	B	E	C	C	F	D	C
Approach Vol, veh/h		268			49			1000			760	
Approach Delay, s/veh		42.4			52.7			33.2			35.1	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	47.3	11.5	30.3	12.0	43.0	4.9	36.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.3	8.7	7.5	21.6	8.2	2.4	2.2	25.8
Green Ext Time (p_c), s	0.0	0.5	0.1	4.2	0.0	0.0	0.0	5.7

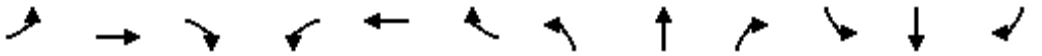
Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	184	311	11	75	1040	1	1170	40
v/c Ratio	0.61	0.66	0.04	0.60	0.52	0.01	0.74	0.05
Control Delay	34.3	19.9	22.8	57.8	10.3	36.0	17.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	19.9	22.8	57.8	10.3	36.0	17.6	2.3
Queue Length 50th (ft)	70	53	4	32	107	0	191	0
Queue Length 95th (ft)	134	123	15	#101	229	5	262	8
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	465	631	481	125	3134	263	3214	1439
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.49	0.02	0.60	0.33	0.00	0.36	0.03

Intersection Summary

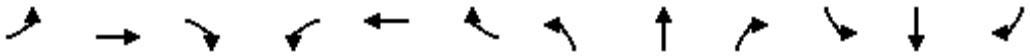
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	6	0	3	61	839	3	1	948	32
Future Volume (veh/h)	149	0	252	6	0	3	61	839	3	1	948	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	7	0	4	75	1036	4	1	1170	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	419	0	382	136	19	36	96	1798	7	3	1572	701
Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.06	0.53	0.53	0.00	0.47	0.47
Sat Flow, veh/h	1323	0	1485	169	73	139	1668	3401	13	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	11	0	0	75	507	533	1	1170	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	381	0	0	1668	1664	1749	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	12.5	0.1	0.0	0.0	2.8	13.1	13.1	0.0	18.1	0.9
Cycle Q Clear(g_c), s	9.0	0.0	12.5	12.6	0.0	0.0	2.8	13.1	13.1	0.0	18.1	0.9
Prop In Lane	1.00		1.00	0.64		0.36	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	419	0	382	191	0	0	96	880	925	3	1572	701
V/C Ratio(X)	0.44	0.00	0.81	0.06	0.00	0.00	0.78	0.58	0.58	0.38	0.74	0.06
Avail Cap(c_a), veh/h	569	0	550	320	0	0	131	1902	1999	276	4092	1825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	22.1	18.6	0.0	0.0	29.5	10.1	10.1	31.6	13.6	9.1
Incr Delay (d2), s/veh	0.7	0.0	6.1	0.1	0.0	0.0	18.1	0.6	0.6	72.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.7	0.1	0.0	0.0	1.5	3.3	3.4	0.1	4.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	28.3	18.8	0.0	0.0	47.6	10.7	10.7	103.7	14.3	9.1
LnGrp LOS	C	A	C	B	A	A	D	B	B	F	B	A
Approach Vol, veh/h		495			11			1115			1211	
Approach Delay, s/veh		25.8			18.8			13.2			14.2	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.8	8.2	34.5		20.8	4.6	38.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.0	78.0		23.5	10.5	72.5				
Max Q Clear Time (g_c+I1), s		14.5	4.8	20.1		14.6	2.0	15.1				
Green Ext Time (p_c), s		1.8	0.0	9.8		0.0	0.0	6.8				

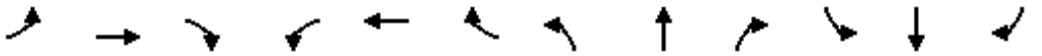
Intersection Summary												
HCM 6th Ctrl Delay			15.9									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	102	246	248	87	165	199	171	713	65	271	860	102
v/c Ratio	0.79	0.22	0.38	0.68	0.15	0.32	0.86	0.84	0.14	0.91	0.82	0.22
Control Delay	95.4	31.6	5.6	82.7	30.6	5.7	91.1	53.9	0.6	83.7	46.3	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.4	31.6	5.6	82.7	30.6	5.7	91.1	53.9	0.6	83.7	46.3	32.0
Queue Length 50th (ft)	84	77	0	71	50	0	140	290	0	220	336	60
Queue Length 95th (ft)	#187	116	61	#149	81	55	#277	364	0	#393	417	106
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	132	1102	657	138	1100	624	205	982	527	311	1194	534
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.22	0.38	0.63	0.15	0.32	0.83	0.73	0.12	0.87	0.72	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	231	233	82	155	187	161	670	61	255	808	96
Future Volume (veh/h)	96	231	233	82	155	187	161	670	61	255	808	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	102	246	248	87	165	199	171	713	65	271	860	102
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	124	1190	531	108	1157	516	196	830	370	297	1030	460
Arrive On Green	0.07	0.36	0.36	0.06	0.35	0.35	0.12	0.25	0.25	0.18	0.31	0.31
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	102	246	248	87	165	199	171	713	65	271	860	102
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	7.2	6.1	15.4	6.1	4.1	12.1	12.0	24.4	4.1	19.0	28.7	6.1
Cycle Q Clear(g_c), s	7.2	6.1	15.4	6.1	4.1	12.1	12.0	24.4	4.1	19.0	28.7	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	1190	531	108	1157	516	196	830	370	297	1030	460
V/C Ratio(X)	0.82	0.21	0.47	0.81	0.14	0.39	0.87	0.86	0.18	0.91	0.83	0.22
Avail Cap(c_a), veh/h	140	1190	531	145	1157	516	217	1031	460	328	1254	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	26.6	29.6	55.1	26.7	29.3	51.8	42.8	35.2	48.2	38.4	30.6
Incr Delay (d2), s/veh	28.3	0.4	2.9	20.8	0.3	2.2	28.0	6.2	0.2	27.4	4.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	2.4	5.7	3.1	1.6	4.4	6.4	10.3	1.5	9.8	11.6	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	27.0	32.5	75.9	27.0	31.5	79.8	49.0	35.4	75.6	42.6	30.8
LnGrp LOS	F	C	C	E	C	C	E	D	D	E	D	C
Approach Vol, veh/h		596			451			949			1233	
Approach Delay, s/veh		38.8			38.4			53.6			48.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	47.2	18.5	41.5	13.4	46.0	25.7	34.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	15.5	45.0	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	8.1	17.4	14.0	30.7	9.2	14.1	21.0	26.4
Green Ext Time (p_c), s	0.0	2.2	0.1	4.8	0.0	1.5	0.2	3.3

Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	57	0	19	2	0	0	8	178	1	0	177	56
Future Vol, veh/h	57	0	19	2	0	0	8	178	1	0	177	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	0	20	2	0	0	8	187	1	0	186	59

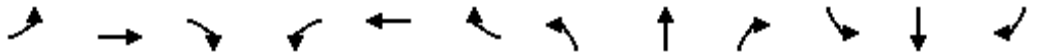
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	20	0	0	257	134	10	228	144	0
Stage 1	-	-	-	-	-	-	130	130	-	4	4	-
Stage 2	-	-	-	-	-	-	127	4	-	224	140	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	-	-	-	1570	-	-	688	749	1060	719	740	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	885	-
Stage 2	-	-	-	-	-	-	867	885	-	770	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1570	-	-	-	748	1060	579	739	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	748	-	579	739	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	884	-
Stage 2	-	-	-	-	-	-	684	884	-	585	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1570	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	-	-	-	7.3	0	-	-
HCM Lane LOS	-	-	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	73	587	17	11	373	129	126	289
v/c Ratio	0.23	0.43	0.03	0.05	0.38	0.24	0.24	0.57
Control Delay	23.5	12.5	0.1	25.9	17.6	5.9	13.7	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	12.5	0.1	25.9	17.6	5.9	13.7	18.6
Queue Length 50th (ft)	18	48	0	3	47	0	24	62
Queue Length 95th (ft)	63	153	1	19	107	37	69	161
Internal Link Dist (ft)		2540			1252		326	432
Turn Bay Length (ft)	310		300	315		155		
Base Capacity (vph)	1102	2778	1253	1102	2778	1267	1232	1150
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.21	0.01	0.01	0.13	0.10	0.10	0.25

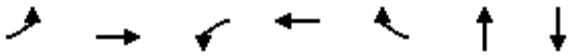
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	558	16	10	354	123	35	62	23	111	65	99
Future Volume (veh/h)	69	558	16	10	354	123	35	62	23	111	65	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	73	587	17	11	373	129	37	65	24	117	68	104
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	126	1064	475	25	862	385	214	297	88	283	135	151
Arrive On Green	0.07	0.31	0.31	0.01	0.25	0.25	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	277	1069	317	482	485	544
Grp Volume(v), veh/h	73	587	17	11	373	129	126	0	0	289	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1663	0	0	1511	0	0
Q Serve(g_s), s	1.4	4.8	0.3	0.2	3.1	2.3	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear(g_c), s	1.4	4.8	0.3	0.2	3.1	2.3	1.9	0.0	0.0	5.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.29		0.19	0.40		0.36
Lane Grp Cap(c), veh/h	126	1064	475	25	862	385	600	0	0	569	0	0
V/C Ratio(X)	0.58	0.55	0.04	0.44	0.43	0.34	0.21	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	1373	4008	1788	1373	4008	1788	1968	0	0	1887	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.2	9.8	8.2	16.6	10.7	10.4	9.5	0.0	0.0	10.8	0.0	0.0
Incr Delay (d2), s/veh	4.1	0.4	0.0	11.6	0.3	0.5	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.9	0.0	0.1	0.7	0.5	0.6	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	10.2	8.2	28.2	11.0	10.9	9.7	0.0	0.0	11.5	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	A	A	A	B	A	A
Approach Vol, veh/h		677			513			126			289	
Approach Delay, s/veh		11.1			11.4			9.7			11.5	
Approach LOS		B			B			A			B	

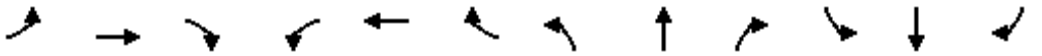
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	15.0		13.9	7.0	13.0		13.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.2	6.8		7.6	3.4	5.1		3.9				
Green Ext Time (p_c), s	0.0	3.7		2.0	0.1	2.6		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		11.2	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	40	575	71	340	77	271	537
v/c Ratio	0.23	0.68	0.39	0.35	0.16	0.38	0.86
Control Delay	53.6	41.3	56.9	33.6	8.9	13.8	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	41.3	56.9	33.6	8.9	13.8	38.9
Queue Length 50th (ft)	29	202	51	111	0	82	325
Queue Length 95th (ft)	56	227	86	135	26	114	377
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	187	1017	199	1111	548	882	796
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.57	0.36	0.31	0.14	0.31	0.67

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	403	40	55	262	59	40	51	118	172	144	98
Future Volume (veh/h)	31	403	40	55	262	59	40	51	118	172	144	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	40	523	52	71	340	77	52	66	153	223	187	127
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	117	732	73	154	869	388	151	195	388	310	233	151
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1682	3084	306	1682	3357	1497	218	411	817	536	490	318
Grp Volume(v), veh/h	40	284	291	71	340	77	271	0	0	537	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1712	1682	1678	1497	1447	0	0	1344	0	0
Q Serve(g_s), s	2.1	14.2	14.3	3.7	7.6	3.7	0.0	0.0	0.0	22.2	0.0	0.0
Cycle Q Clear(g_c), s	2.1	14.2	14.3	3.7	7.6	3.7	10.0	0.0	0.0	32.2	0.0	0.0
Prop In Lane	1.00		0.18	1.00		1.00	0.19		0.56	0.42		0.24
Lane Grp Cap(c), veh/h	117	398	406	154	869	388	733	0	0	694	0	0
V/C Ratio(X)	0.34	0.71	0.72	0.46	0.39	0.20	0.37	0.00	0.00	0.77	0.00	0.00
Avail Cap(c_a), veh/h	199	541	552	212	1108	494	1006	0	0	956	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.5	32.0	32.1	39.4	28.0	26.5	15.2	0.0	0.0	21.2	0.0	0.0
Incr Delay (d2), s/veh	1.7	8.4	8.4	2.2	1.0	0.9	1.1	0.0	0.0	6.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.2	6.3	1.5	2.9	1.3	3.5	0.0	0.0	10.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	40.4	40.5	41.6	29.0	27.4	16.3	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		615			488			271			537	
Approach Delay, s/veh		40.6			30.6			16.3			28.0	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	28.7		50.4	10.4	30.7		50.4				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	5.7	16.3		12.0	4.1	9.6		34.2				
Green Ext Time (p_c), s	0.1	5.4		4.9	0.0	5.0		9.2				

Intersection Summary			
HCM 6th Ctrl Delay		31.0	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1634	-	-	-	1026	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1634	-	-	-	1026	1088
Mov Cap-2 Maneuver	-	-	-	-	1026	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1634	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	718	2	6	509	4	7	0	7	3	0	0
Future Vol, veh/h	0	718	2	6	509	4	7	0	7	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	756	2	6	536	4	7	0	7	3	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	540	0	0	758	0	0	1037	1309	379	928	1308	270
Stage 1	-	-	-	-	-	-	757	757	-	550	550	-
Stage 2	-	-	-	-	-	-	280	552	-	378	758	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	977	-	-	805	-	-	176	149	599	212	149	707
Stage 1	-	-	-	-	-	-	351	397	-	470	497	-
Stage 2	-	-	-	-	-	-	684	496	-	597	397	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	977	-	-	805	-	-	175	148	599	208	148	707
Mov Cap-2 Maneuver	-	-	-	-	-	-	175	148	-	208	148	-
Stage 1	-	-	-	-	-	-	351	397	-	470	494	-
Stage 2	-	-	-	-	-	-	679	493	-	590	397	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19	22.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	977	-	-	805	-	-	208
HCM Lane V/C Ratio	0.054	-	-	-	0.008	-	-	0.015
HCM Control Delay (s)	19	0	-	-	9.5	-	-	22.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	117	28	14	18	2	14	86	25	6	33	7
Future Vol, veh/h	9	117	28	14	18	2	14	86	25	6	33	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	154	37	18	24	3	18	113	33	8	43	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	8.1	8.7	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	6%	41%	13%
Vol Thru, %	69%	76%	53%	72%
Vol Right, %	20%	18%	6%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	154	34	46
LT Vol	14	9	14	6
Through Vol	86	117	18	33
RT Vol	25	28	2	7
Lane Flow Rate	164	203	45	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.207	0.251	0.059	0.079
Departure Headway (Hd)	4.52	4.452	4.776	4.674
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	794	806	749	766
Service Time	2.545	2.477	2.809	2.703
HCM Lane V/C Ratio	0.207	0.252	0.06	0.08
HCM Control Delay	8.7	9	8.1	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1	0.2	0.3

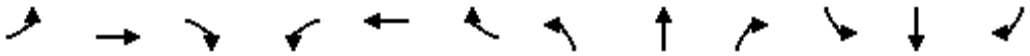
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	120	0	0	84	0
Future Vol, veh/h	0	0	0	0	0	0	0	120	0	0	84	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	0	0	0	0	133	0	0	93	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	226	226	93	226	226	133	93	0	0	133	0	0
Stage 1	93	93	-	133	133	-	-	-	-	-	-	-
Stage 2	133	133	-	93	93	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	715	661	945	715	661	898	1458	-	-	1410	-	-
Stage 1	897	804	-	854	773	-	-	-	-	-	-	-
Stage 2	854	773	-	897	804	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	715	661	945	715	661	898	1458	-	-	1410	-	-
Mov Cap-2 Maneuver	715	661	-	715	661	-	-	-	-	-	-	-
Stage 1	897	804	-	854	773	-	-	-	-	-	-	-
Stage 2	854	773	-	897	804	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

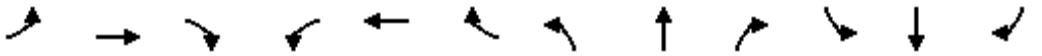
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	-	-	1410	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	104	588	162	198	392	211	154	386	188	125	305	45
v/c Ratio	0.49	0.68	0.42	0.68	0.34	0.41	0.58	0.46	0.50	0.53	0.73	0.13
Control Delay	48.7	35.8	33.8	51.9	27.3	31.0	47.6	32.0	36.2	47.5	45.1	31.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	35.8	33.8	51.9	27.3	31.0	47.6	32.0	36.2	47.5	45.1	31.3
Queue Length 50th (ft)	55	158	77	105	91	96	81	97	91	66	159	20
Queue Length 95th (ft)	127	255	158	#267	167	203	171	168	186	144	297	56
Internal Link Dist (ft)		349			1207			1910			486	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	317	1578	706	317	1578	706	399	1176	526	399	614	523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.37	0.23	0.62	0.25	0.30	0.39	0.33	0.36	0.31	0.50	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	535	147	180	357	192	140	351	171	114	278	41
Future Volume (veh/h)	95	535	147	180	357	192	140	351	171	114	278	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	104	588	162	198	392	211	154	386	188	125	305	45
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	873	389	248	1096	489	199	818	365	164	393	333
Arrive On Green	0.08	0.25	0.25	0.14	0.31	0.31	0.11	0.23	0.23	0.09	0.21	0.21
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	104	588	162	198	392	211	154	386	188	125	305	45
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1856	1572
Q Serve(g_s), s	3.6	9.4	5.4	6.8	5.4	6.7	5.3	5.9	6.5	4.3	9.7	1.5
Cycle Q Clear(g_c), s	3.6	9.4	5.4	6.8	5.4	6.7	5.3	5.9	6.5	4.3	9.7	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	873	389	248	1096	489	199	818	365	164	393	333
V/C Ratio(X)	0.77	0.67	0.42	0.80	0.36	0.43	0.77	0.47	0.52	0.76	0.78	0.14
Avail Cap(c_a), veh/h	438	2169	968	438	2169	968	551	1606	716	551	845	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	21.3	19.7	26.1	16.7	17.2	27.0	20.7	21.0	27.7	23.3	20.0
Incr Delay (d2), s/veh	8.7	0.9	0.7	5.9	0.2	0.6	6.2	0.4	1.1	7.2	3.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.3	1.8	2.8	1.8	2.1	2.3	2.2	2.2	2.0	4.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	22.2	20.5	31.9	16.9	17.8	33.2	21.1	22.1	34.9	26.6	20.2
LnGrp LOS	D	C	C	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		854			801			728			475	
Approach Delay, s/veh		23.6			20.9			23.9			28.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	20.0	11.6	17.8	9.3	23.9	10.3	19.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	8.8	11.4	7.3	11.7	5.6	8.7	6.3	8.5
Green Ext Time (p_c), s	0.3	4.1	0.3	1.6	0.1	2.9	0.2	2.8

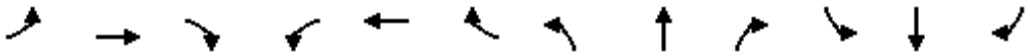
Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	106
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	54	36	88	68	2	85	35	540	100	88	565	4
Future Vol, veh/h	54	36	88	68	2	85	35	540	100	88	565	4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	72	48	117	91	3	113	47	720	133	117	753	5
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

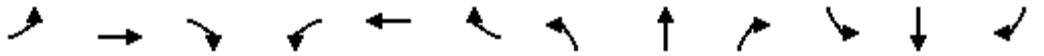
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	40.1	20.8	122.8	126.6
HCM LOS	E	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	64%	20%	0%	2%	0%	100%	98%
Vol Right, %	0%	0%	36%	49%	0%	98%	0%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	360	280	178	68	87	88	377	192
LT Vol	35	0	0	54	68	0	88	0	0
Through Vol	0	360	180	36	0	2	0	377	188
RT Vol	0	0	100	88	0	85	0	0	4
Lane Flow Rate	47	480	373	237	91	116	117	502	256
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.131	1.277	0.967	0.722	0.3	0.346	0.331	1.344	0.685
Departure Headway (Hd)	10.645	10.121	9.858	11.838	12.932	11.693	10.585	10.061	10.046
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	339	365	370	309	280	310	341	367	362
Service Time	8.345	7.821	7.558	9.538	10.632	9.393	8.285	7.761	7.746
HCM Lane V/C Ratio	0.139	1.315	1.008	0.767	0.325	0.374	0.343	1.368	0.707
HCM Control Delay	14.9	173.6	71	40.1	21.1	20.5	18.4	200.1	32
HCM Lane LOS	B	F	F	E	C	C	C	F	D
HCM 95th-tile Q	0.4	20.6	10.8	5.2	1.2	1.5	1.4	23.2	4.9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	133	12	245	65	10	2	81	671	105	6	796	46
v/c Ratio	0.46	0.03	0.62	0.31	0.03	0.01	0.35	0.42	0.15	0.04	0.68	0.09
Control Delay	41.3	27.1	37.3	43.3	31.5	31.5	42.6	16.4	15.6	45.2	28.0	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	27.1	37.3	43.3	31.5	31.5	42.6	16.4	15.6	45.2	28.0	22.6
Queue Length 50th (ft)	63	5	113	31	4	1	39	108	28	3	187	16
Queue Length 95th (ft)	131	19	206	79	19	7	92	204	75	17	281	44
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	483	1119	951	290	999	849	345	2110	944	138	1833	820
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.01	0.26	0.22	0.01	0.00	0.23	0.32	0.11	0.04	0.43	0.06

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	10	206	55	8	2	68	564	88	5	669	39
Future Volume (veh/h)	112	10	206	55	8	2	68	564	88	5	669	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	133	12	245	65	10	2	81	671	105	6	796	46
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	175	374	317	102	298	252	115	1371	611	14	1169	521
Arrive On Green	0.10	0.20	0.20	0.06	0.16	0.16	0.07	0.39	0.39	0.01	0.33	0.33
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	133	12	245	65	10	2	81	671	105	6	796	46
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	3.9	0.3	7.9	1.9	0.2	0.1	2.4	7.7	2.3	0.2	10.4	1.1
Cycle Q Clear(g_c), s	3.9	0.3	7.9	1.9	0.2	0.1	2.4	7.7	2.3	0.2	10.4	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	374	317	102	298	252	115	1371	611	14	1169	521
V/C Ratio(X)	0.76	0.03	0.77	0.64	0.03	0.01	0.70	0.49	0.17	0.43	0.68	0.09
Avail Cap(c_a), veh/h	577	1524	1291	346	1281	1086	412	2797	1247	165	2303	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	17.0	20.0	24.5	18.8	18.7	24.3	12.2	10.5	26.2	15.2	12.1
Incr Delay (d2), s/veh	6.7	0.0	4.0	6.5	0.0	0.0	7.6	0.3	0.1	19.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.1	2.8	0.9	0.1	0.0	1.1	2.4	0.7	0.1	3.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	17.0	24.0	31.0	18.8	18.7	31.9	12.4	10.7	45.7	16.0	12.2
LnGrp LOS	C	B	C	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		390			77			857			848	
Approach Delay, s/veh		25.8			29.1			14.1			16.0	
Approach LOS		C			C			B			B	

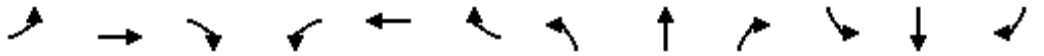
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	15.3	8.0	22.3	9.8	13.1	4.9	25.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	3.9	9.9	4.4	12.4	5.9	2.2	2.2	9.7
Green Ext Time (p_c), s	0.1	0.9	0.1	5.3	0.2	0.0	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	173	755	53	255	116	124	566	91	156	838	110
v/c Ratio	0.69	0.59	0.62	0.29	0.22	0.73	0.60	0.17	0.65	0.78	0.23
Control Delay	56.9	25.3	80.0	33.2	2.0	71.1	35.5	0.7	55.2	36.8	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	25.3	80.0	33.2	2.0	71.1	35.5	0.7	55.2	36.8	26.7
Queue Length 50th (ft)	108	182	35	70	0	80	170	0	98	261	53
Queue Length 95th (ft)	182	263	#99	116	5	#181	227	0	165	310	91
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	325	1289	86	891	530	173	1393	728	334	1715	767
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.59	0.62	0.29	0.22	0.72	0.41	0.13	0.47	0.49	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



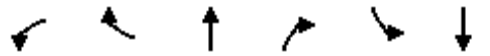
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	414	236	46	219	100	107	487	78	134	721	95
Future Volume (veh/h)	149	414	236	46	219	100	107	487	78	134	721	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	173	481	274	53	255	116	124	566	91	156	838	110
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	207	817	463	68	1051	469	152	989	441	190	1064	474
Arrive On Green	0.12	0.38	0.38	0.04	0.30	0.30	0.09	0.29	0.29	0.11	0.31	0.31
Sat Flow, veh/h	1739	2133	1209	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	173	391	364	53	255	116	124	566	91	156	838	110
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	9.5	17.6	17.7	3.0	5.4	5.5	6.9	13.6	4.4	8.6	21.6	5.2
Cycle Q Clear(g_c), s	9.5	17.6	17.7	3.0	5.4	5.5	6.9	13.6	4.4	8.6	21.6	5.2
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	664	616	68	1051	469	152	989	441	190	1064	474
V/C Ratio(X)	0.84	0.59	0.59	0.78	0.24	0.25	0.81	0.57	0.21	0.82	0.79	0.23
Avail Cap(c_a), veh/h	334	664	616	89	1051	469	178	1424	635	343	1754	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	24.1	24.1	46.6	25.7	25.7	43.9	29.9	26.6	42.7	31.0	25.3
Incr Delay (d2), s/veh	9.6	3.8	4.1	27.4	0.5	1.3	21.6	0.5	0.2	8.6	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	7.1	6.7	1.7	2.1	2.1	3.8	5.5	1.6	4.0	8.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	27.8	28.2	74.0	26.2	27.0	65.5	30.4	26.8	51.3	32.4	25.6
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		928			424			781			1104	
Approach Delay, s/veh		32.5			32.4			35.6			34.4	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	42.0	13.1	34.5	16.2	34.2	15.2	32.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.0	19.7	8.9	23.6	11.5	7.5	10.6	15.6
Green Ext Time (p_c), s	0.0	3.9	0.0	6.4	0.2	1.5	0.2	4.0

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	36	84	840	97	1002
v/c Ratio	0.09	0.20	0.43	0.56	0.41
Control Delay	37.3	9.0	16.4	63.0	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	9.0	16.4	63.0	8.4
Queue Length 50th (ft)	22	0	186	73	156
Queue Length 95th (ft)	51	41	257	125	193
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	401	424	1933	299	2438
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.20	0.43	0.32	0.41

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	76	676	80	87	902
Future Volume (veh/h)	32	76	676	80	87	902
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	84	751	89	97	1002
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1870	222	122	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3267	376	1767	3618
Grp Volume(v), veh/h	36	84	417	423	97	1002
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1788	1767	1763
Q Serve(g_s), s	1.9	5.2	15.3	15.3	6.5	14.5
Cycle Q Clear(g_c), s	1.9	5.2	15.3	15.3	6.5	14.5
Prop In Lane	1.00	1.00		0.21	1.00	
Lane Grp Cap(c), veh/h	405	360	1039	1053	122	2453
V/C Ratio(X)	0.09	0.23	0.40	0.40	0.79	0.41
Avail Cap(c_a), veh/h	405	360	1039	1053	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	37.7	13.3	13.3	55.0	7.8
Incr Delay (d2), s/veh	0.4	1.5	1.2	1.1	11.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.1	6.0	6.1	3.2	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.8	39.2	14.4	14.4	66.0	8.3
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	120		840			1099
Approach Delay, s/veh	38.5		14.4			13.4
Approach LOS	D		B			B

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				88.0		32.0	12.8	75.2
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s				16.5		7.2	8.5	17.3
Green Ext Time (p_c), s				8.2		0.3	0.1	5.7

Intersection Summary								
HCM 6th Ctrl Delay			15.3					
HCM 6th LOS			B					

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	852	65	34	1005	0	9	0	37	0	0	0
Future Vol, veh/h	0	852	65	34	1005	0	9	0	37	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	3	3	3	3	2	3	2	3	2	2	2
Mvmt Flow	0	936	71	37	1104	0	10	0	41	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1104	0	0	1007	0	0	2150	2150	972	2170	2185	1104
Stage 1	-	-	-	-	-	-	972	972	-	1178	1178	-
Stage 2	-	-	-	-	-	-	1178	1178	-	992	1007	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.13	6.52	6.23	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.527	4.018	3.327	3.518	4.018	3.318
Pot Cap-1 Maneuver	632	-	-	684	-	-	35	48	305	34	46	257
Stage 1	-	-	-	-	-	-	302	331	-	233	265	-
Stage 2	-	-	-	-	-	-	231	265	-	296	319	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	632	-	-	684	-	-	31	41	305	26	40	257
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	41	-	26	40	-
Stage 1	-	-	-	-	-	-	302	331	-	233	228	-
Stage 2	-	-	-	-	-	-	199	228	-	257	319	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	61.2	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	112	632	-	-	684	-	-	-
HCM Lane V/C Ratio	0.451	-	-	-	0.055	-	-	-
HCM Control Delay (s)	61.2	0	-	-	10.6	0	-	0
HCM Lane LOS	F	A	-	-	B	A	-	A
HCM 95th %tile Q(veh)	2	0	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	184	3	58	130	33	1	12	58	16	11	5
Future Vol, veh/h	16	184	3	58	130	33	1	12	58	16	11	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	18	211	3	67	149	38	1	14	67	18	13	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	187	0	0	214	0	0	561	570	213	591	552	168
Stage 1	-	-	-	-	-	-	249	249	-	302	302	-
Stage 2	-	-	-	-	-	-	312	321	-	289	250	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1393	-	-	1362	-	-	440	433	830	420	443	879
Stage 1	-	-	-	-	-	-	757	702	-	709	666	-
Stage 2	-	-	-	-	-	-	701	653	-	721	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1393	-	-	1362	-	-	407	407	830	359	416	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	407	407	-	359	416	-
Stage 1	-	-	-	-	-	-	747	693	-	700	633	-
Stage 2	-	-	-	-	-	-	649	621	-	641	693	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2	10.8	14.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	407	704	1393	-	-	1362	-	-	417
HCM Lane V/C Ratio	0.003	0.114	0.013	-	-	0.049	-	-	0.088
HCM Control Delay (s)	13.9	10.8	7.6	-	-	7.8	-	-	14.5
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	81	26	41	32	1	25	0	52	0	1	1
Future Vol, veh/h	0	81	26	41	32	1	25	0	52	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	91	29	46	36	1	28	0	58	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	37	0	0	120	0	0	236	235	106	264	249	37
Stage 1	-	-	-	-	-	-	106	106	-	129	129	-
Stage 2	-	-	-	-	-	-	130	129	-	135	120	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1580	-	-	1474	-	-	721	667	951	691	655	1038
Stage 1	-	-	-	-	-	-	902	809	-	877	791	-
Stage 2	-	-	-	-	-	-	876	791	-	871	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1474	-	-	702	646	951	633	634	1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	702	646	-	633	634	-
Stage 1	-	-	-	-	-	-	902	809	-	877	766	-
Stage 2	-	-	-	-	-	-	846	766	-	817	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.2	9.7	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	853	1580	-	-	1474	-	-	787
HCM Lane V/C Ratio	0.101	-	-	-	0.031	-	-	0.003
HCM Control Delay (s)	9.7	0	-	-	7.5	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0

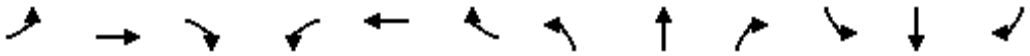
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	0	0	77	0	0	69	0
Future Vol, veh/h	0	0	0	1	0	0	0	77	0	0	69	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	1	0	0	0	83	0	0	74	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	157	157	74	157	157	83	74	0	0	83	0	0
Stage 1	74	74	-	83	83	-	-	-	-	-	-	-
Stage 2	83	83	-	74	74	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	814	739	993	814	739	982	1538	-	-	1527	-	-
Stage 1	940	837	-	930	830	-	-	-	-	-	-	-
Stage 2	930	830	-	940	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	814	739	993	814	739	982	1538	-	-	1527	-	-
Mov Cap-2 Maneuver	814	739	-	814	739	-	-	-	-	-	-	-
Stage 1	940	837	-	930	830	-	-	-	-	-	-	-
Stage 2	930	830	-	940	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.4	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	-	814	1527	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	0	-	-	0	9.4	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

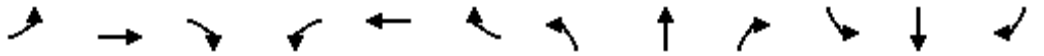


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	662	279	115	580	92	389	232	193	38	75	87
v/c Ratio	0.44	0.73	0.31	0.56	0.55	0.10	3.19	0.62	0.41	0.42	0.15	0.26
Control Delay	59.3	28.2	5.7	52.9	18.3	3.2	1020.9	44.6	7.9	62.5	36.7	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	28.2	5.7	52.9	18.3	3.2	1020.9	44.6	7.9	62.5	36.7	3.4
Queue Length 50th (ft)	32	331	19	71	242	0	~445	142	0	24	22	0
Queue Length 95th (ft)	76	#626	78	132	407	25	#675	222	57	#66	42	12
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	120	908	886	280	1048	932	122	707	720	91	1281	659
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.73	0.31	0.41	0.55	0.10	3.19	0.33	0.27	0.42	0.06	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



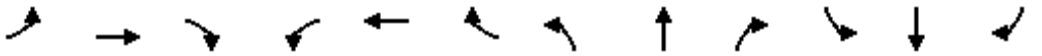
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	609	257	106	534	85	358	213	178	35	69	80
Future Volume (veh/h)	47	609	257	106	534	85	358	213	178	35	69	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	662	279	115	580	92	389	232	193	38	75	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	996	844	146	1075	911	128	298	253	60	431	192
Arrive On Green	0.04	0.53	0.53	0.08	0.57	0.57	0.07	0.16	0.16	0.03	0.12	0.12
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	51	662	279	115	580	92	389	232	193	38	75	87
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	2.6	23.9	9.3	5.9	17.8	2.4	6.7	11.1	10.9	2.0	1.8	4.8
Cycle Q Clear(g_c), s	2.6	23.9	9.3	5.9	17.8	2.4	6.7	11.1	10.9	2.0	1.8	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	70	996	844	146	1075	911	128	298	253	60	431	192
V/C Ratio(X)	0.73	0.66	0.33	0.79	0.54	0.10	3.04	0.78	0.76	0.64	0.17	0.45
Avail Cap(c_a), veh/h	126	996	844	292	1075	911	128	735	623	95	1332	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	15.8	12.4	42.1	12.2	9.0	43.4	37.7	37.6	44.6	36.8	38.1
Incr Delay (d2), s/veh	13.5	3.5	1.1	9.1	1.9	0.2	940.6	4.4	4.7	10.7	0.2	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	9.3	3.1	2.8	6.5	0.8	36.2	5.2	4.3	1.0	0.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	19.3	13.4	51.2	14.2	9.2	984.0	42.0	42.3	55.2	37.0	39.8
LnGrp LOS	E	B	B	D	B	A	F	D	D	E	D	D
Approach Vol, veh/h		992			787			814			200	
Approach Delay, s/veh		19.6			19.0			492.2			41.7	
Approach LOS		B			B			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	54.2	11.2	15.8	8.2	58.2	7.6	19.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	7.9	25.9	8.7	6.8	4.6	19.8	4.0	13.1
Green Ext Time (p_c), s	0.1	4.6	0.0	0.6	0.0	3.7	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	158.8
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	35	258	109	171	218	514	254	36	346
v/c Ratio	0.38	0.44	0.62	0.23	0.76	0.69	0.32	0.38	0.39
Control Delay	66.9	29.6	66.1	23.4	63.2	35.4	4.2	66.4	37.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	29.6	66.1	23.4	63.2	35.4	4.2	66.4	37.0
Queue Length 50th (ft)	27	135	82	84	163	339	0	28	112
Queue Length 95th (ft)	62	218	142	140	242	473	53	64	164
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	94	589	209	750	364	749	788	97	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.44	0.52	0.23	0.60	0.69	0.32	0.37	0.39

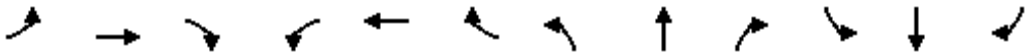
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	129	114	102	128	33	205	483	239	34	295	30
Future Volume (veh/h)	33	129	114	102	128	33	205	483	239	34	295	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	137	121	109	136	35	218	514	254	36	314	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	313	276	135	557	143	250	739	626	53	928	94
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.14	0.40	0.40	0.03	0.28	0.28
Sat Flow, veh/h	1781	916	809	1781	1435	369	1781	1870	1585	1781	3258	330
Grp Volume(v), veh/h	35	0	258	109	0	171	218	514	254	36	170	176
Grp Sat Flow(s),veh/h/ln	1781	0	1725	1781	0	1804	1781	1870	1585	1781	1777	1811
Q Serve(g_s), s	2.2	0.0	13.2	6.9	0.0	7.3	13.7	26.2	13.2	2.3	8.7	8.8
Cycle Q Clear(g_c), s	2.2	0.0	13.2	6.9	0.0	7.3	13.7	26.2	13.2	2.3	8.7	8.8
Prop In Lane	1.00		0.47	1.00		0.20	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	52	0	589	135	0	700	250	739	626	53	506	516
V/C Ratio(X)	0.67	0.00	0.44	0.81	0.00	0.24	0.87	0.70	0.41	0.68	0.34	0.34
Avail Cap(c_a), veh/h	95	0	589	210	0	700	366	739	626	98	506	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	29.1	52.0	0.0	23.6	48.2	28.8	24.9	54.9	32.4	32.4
Incr Delay (d2), s/veh	13.8	0.0	2.4	11.9	0.0	0.8	14.4	5.3	1.9	14.1	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	5.6	3.4	0.0	3.2	6.9	12.2	5.1	1.2	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	0.0	31.5	63.9	0.0	24.5	62.6	34.2	26.8	69.0	34.1	34.2
LnGrp LOS	E	A	C	E	A	C	E	C	C	E	C	C
Approach Vol, veh/h		293			280			986			382	
Approach Delay, s/veh		36.0			39.8			38.6			37.5	
Approach LOS		D			D			D			D	

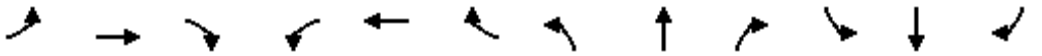
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	43.6	20.5	37.1	7.9	48.9	7.9	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	8.9	15.2	15.7	10.8	4.2	9.3	4.3	28.2
Green Ext Time (p_c), s	0.1	1.3	0.3	1.6	0.0	0.9	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	127	417	87	107	231	217	184	805	144	212	431	65
v/c Ratio	0.65	0.36	0.15	0.61	0.21	0.33	0.74	0.83	0.29	0.76	0.42	0.14
Control Delay	74.3	37.3	8.3	74.4	36.5	6.5	74.7	53.3	20.4	72.5	39.0	36.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.3	37.3	8.3	74.4	36.5	6.5	74.7	53.3	20.4	72.5	39.0	36.1
Queue Length 50th (ft)	107	146	0	90	77	0	154	340	44	177	156	41
Queue Length 95th (ft)	191	228	43	166	132	65	260	459	109	288	221	84
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	267	1163	578	239	1124	650	321	1218	594	376	1328	593
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.36	0.15	0.45	0.21	0.33	0.57	0.66	0.24	0.56	0.32	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	409	85	105	226	213	180	789	141	208	422	64
Future Volume (veh/h)	124	409	85	105	226	213	180	789	141	208	422	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	417	87	107	231	217	184	805	144	212	431	65
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	1283	572	133	1239	553	215	974	435	244	1033	461
Arrive On Green	0.09	0.36	0.36	0.07	0.35	0.35	0.12	0.27	0.27	0.14	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	127	417	87	107	231	217	184	805	144	212	431	65
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.2	10.0	4.4	7.0	5.3	12.2	11.9	25.0	8.5	13.7	11.5	3.6
Cycle Q Clear(g_c), s	8.2	10.0	4.4	7.0	5.3	12.2	11.9	25.0	8.5	13.7	11.5	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	155	1283	572	133	1239	553	215	974	435	244	1033	461
V/C Ratio(X)	0.82	0.33	0.15	0.80	0.19	0.39	0.86	0.83	0.33	0.87	0.42	0.14
Avail Cap(c_a), veh/h	295	1283	572	265	1239	553	356	1343	599	416	1464	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	27.2	25.4	53.6	26.7	28.9	50.8	40.1	34.1	49.8	33.7	30.9
Incr Delay (d2), s/veh	10.0	0.7	0.6	10.6	0.3	2.1	10.5	3.1	0.4	9.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.1	1.7	3.4	2.2	4.8	5.8	10.9	3.2	6.6	4.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.8	27.9	26.0	64.2	27.0	31.0	61.2	43.2	34.6	59.4	34.0	31.0
LnGrp LOS	E	C	C	E	C	C	E	D	C	E	C	C
Approach Vol, veh/h		631			555			1133			708	
Approach Delay, s/veh		34.7			35.7			45.0			41.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	47.0	18.7	38.7	14.8	45.6	20.6	36.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	42.5	23.5	48.5	19.5	40.5	27.5	44.5
Max Q Clear Time (g_c+I1), s	9.0	12.0	13.9	13.5	10.2	14.2	15.7	27.0
Green Ext Time (p_c), s	0.1	2.7	0.3	2.9	0.2	1.9	0.4	5.3

Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	108	12	1	79
Future Vol, veh/h	5	1	108	12	1	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	6	1	120	13	1	88

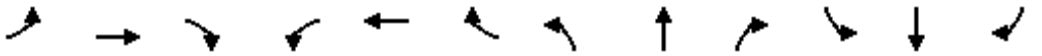
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	217	127	0	0	133	0
Stage 1	127	-	-	-	-	-
Stage 2	90	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	756	905	-	-	1410	-
Stage 1	882	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	755	905	-	-	1410	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	776	1410	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	9.7	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	39	868	22	728	65
v/c Ratio	0.10	0.44	0.22	0.34	0.17
Control Delay	10.1	11.6	54.6	7.6	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	11.6	54.6	7.6	11.6
Queue Length 50th (ft)	8	124	14	98	2
Queue Length 95th (ft)	29	235	43	126	40
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	393	1991	181	2487	386
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.44	0.12	0.29	0.17

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	809	7	21	684	0	4	0	57	0	0	0
Future Volume (veh/h)	37	809	7	21	684	0	4	0	57	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	39	861	7	22	728	0	4	0	61			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	452	2019	16	36	2187	0	20	0	312			
Arrive On Green	0.62	0.62	0.62	0.02	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	652	3240	26	1598	3272	0	88	0	1343			
Grp Volume(v), veh/h	39	423	445	22	728	0	65	0	0			
Grp Sat Flow(s),veh/h/ln	652	1594	1673	1598	1594	0	1431	0	0			
Q Serve(g_s), s	2.8	15.0	15.0	1.5	10.2	0.0	4.0	0.0	0.0			
Cycle Q Clear(g_c), s	6.1	15.0	15.0	1.5	10.2	0.0	4.0	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.06		0.94			
Lane Grp Cap(c), veh/h	452	993	1042	36	2187	0	332	0	0			
V/C Ratio(X)	0.09	0.43	0.43	0.62	0.33	0.00	0.20	0.00	0.00			
Avail Cap(c_a), veh/h	452	993	1042	182	2479	0	332	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.7	10.6	10.6	53.3	7.0	0.0	34.0	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.3	1.3	16.2	0.1	0.0	1.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.7	4.9	0.7	2.6	0.0	1.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	12.0	11.9	69.5	7.1	0.0	35.3	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		907			750			65				
Approach Delay, s/veh		11.9			8.9			35.3				
Approach LOS		B			A			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.9	73.0				79.9		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.5	17.0				12.2		6.0				
Green Ext Time (p_c), s	0.0	5.8				4.9		0.3				

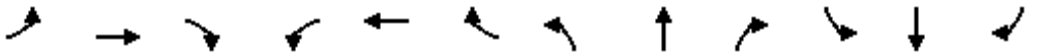
Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	294	12	492	119	96	709
v/c Ratio	0.20	0.64	0.06	0.50	0.27	0.34	0.47
Control Delay	17.1	25.6	32.2	21.3	21.4	29.8	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	25.6	32.2	21.3	21.4	29.8	13.5
Queue Length 50th (ft)	28	88	4	75	32	30	72
Queue Length 95th (ft)	74	201	22	158	91	90	206
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	1136	942	300	2696	1206	616	2993
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.31	0.04	0.18	0.10	0.16	0.24

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	62	36	103	59	100	11	438	106	85	630	1
Future Volume (veh/h)	1	62	36	103	59	100	11	438	106	85	630	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	70	40	116	66	112	12	492	119	96	708	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	98	299	169	261	128	157	26	902	402	141	1158	2
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.02	0.27	0.27	0.08	0.34	0.34
Sat Flow, veh/h	3	1048	592	447	450	552	1668	3328	1485	1668	3410	5
Grp Volume(v), veh/h	111	0	0	294	0	0	12	492	119	96	345	364
Grp Sat Flow(s),veh/h/ln	1643	0	0	1448	0	0	1668	1664	1485	1668	1664	1751
Q Serve(g_s), s	0.0	0.0	0.0	4.6	0.0	0.0	0.3	4.7	2.4	2.1	6.5	6.5
Cycle Q Clear(g_c), s	1.9	0.0	0.0	6.7	0.0	0.0	0.3	4.7	2.4	2.1	6.5	6.5
Prop In Lane	0.01		0.36	0.39		0.38	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	565	0	0	547	0	0	26	902	402	141	565	594
V/C Ratio(X)	0.20	0.00	0.00	0.54	0.00	0.00	0.46	0.55	0.30	0.68	0.61	0.61
Avail Cap(c_a), veh/h	1778	0	0	1585	0	0	422	4301	1918	867	2594	2729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	0.0	11.9	0.0	0.0	18.3	11.7	10.8	16.7	10.3	10.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.0	12.0	0.5	0.4	5.7	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.8	0.0	0.0	0.2	1.1	0.5	0.8	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	0.0	0.0	12.7	0.0	0.0	30.3	12.2	11.3	22.4	11.4	11.4
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		111			294			623			805	
Approach Delay, s/veh		10.5			12.7			12.4			12.7	
Approach LOS		B			B			B			B	

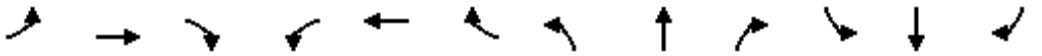
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.2	5.1	17.2		15.2	7.7	14.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	9.5	58.5		38.5	19.5	48.5				
Max Q Clear Time (g_c+I1), s		3.9	2.3	8.5		8.7	4.1	6.7				
Green Ext Time (p_c), s		0.6	0.0	4.0		2.0	0.2	3.4				

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	267	374	266	211	413	99	87	460	175	66	832
v/c Ratio	0.97	0.39	0.43	0.82	0.44	0.20	0.53	0.49	0.33	0.46	0.91
Control Delay	93.9	33.1	6.3	71.3	34.5	7.5	59.5	34.5	9.5	58.9	50.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.9	33.1	6.3	71.3	34.5	7.5	59.5	34.5	9.5	58.9	50.5
Queue Length 50th (ft)	194	114	0	147	128	0	60	143	14	46	284
Queue Length 95th (ft)	#385	169	65	#285	187	42	113	204	70	92	#437
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	276	969	618	276	929	485	283	953	530	276	919
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.39	0.43	0.76	0.44	0.20	0.31	0.48	0.33	0.24	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	348	247	196	384	92	81	428	163	61	515	259
Future Volume (veh/h)	248	348	247	196	384	92	81	428	163	61	515	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	267	374	266	211	413	99	87	460	175	66	554	278
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	287	1058	472	239	963	430	109	974	434	83	595	298
Arrive On Green	0.18	0.33	0.33	0.15	0.30	0.30	0.07	0.30	0.30	0.05	0.29	0.29
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2074	1039
Grp Volume(v), veh/h	267	374	266	211	413	99	87	460	175	66	429	403
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	17.4	9.4	16.3	13.7	11.0	5.6	5.7	12.4	10.4	4.3	27.8	27.8
Cycle Q Clear(g_c), s	17.4	9.4	16.3	13.7	11.0	5.6	5.7	12.4	10.4	4.3	27.8	27.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	287	1058	472	239	963	430	109	974	434	83	461	432
V/C Ratio(X)	0.93	0.35	0.56	0.88	0.43	0.23	0.80	0.47	0.40	0.79	0.93	0.93
Avail Cap(c_a), veh/h	287	1058	472	287	963	430	294	974	434	287	474	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	27.2	29.5	44.6	30.1	28.2	49.1	30.3	29.6	50.1	37.1	37.1
Incr Delay (d2), s/veh	35.5	0.9	4.8	23.1	1.4	1.3	12.5	0.4	0.6	15.5	24.9	26.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	3.5	5.8	6.7	4.2	1.9	2.6	4.5	3.4	2.0	13.2	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.8	28.2	34.4	67.7	31.5	29.4	61.6	30.7	30.2	65.6	62.0	63.6
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	E	E
Approach Vol, veh/h		907			723			722			898	
Approach Delay, s/veh		44.9			41.8			34.3			62.9	
Approach LOS		D			D			C			E	

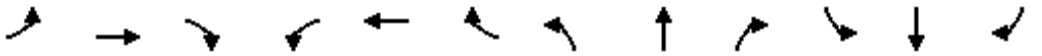
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	39.7	11.7	35.1	23.5	36.5	10.0	36.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	32.0	19.5	31.5	19.0	32.0	19.0	32.0
Max Q Clear Time (g_c+I1), s	15.7	18.3	7.7	29.8	19.4	13.0	6.3	14.4
Green Ext Time (p_c), s	0.2	2.5	0.1	0.8	0.0	2.5	0.1	3.0

Intersection Summary	
HCM 6th Ctrl Delay	46.8
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	20	65	12	202	818	15	4	961	119
v/c Ratio	0.21	0.09	0.14	0.89	0.51	0.02	0.05	0.89	0.21
Control Delay	57.7	0.3	56.8	86.4	21.1	0.1	54.8	46.6	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	0.3	56.8	86.4	21.1	0.1	54.8	46.6	4.3
Queue Length 50th (ft)	14	0	8	140	171	0	3	313	0
Queue Length 95th (ft)	41	0	29	#308	322	0	15	#478	30
Internal Link Dist (ft)					1421			2552	
Turn Bay Length (ft)	200	110	120	250		275	305		110
Base Capacity (vph)	109	717	94	226	1604	764	94	1183	614
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09	0.13	0.89	0.51	0.02	0.04	0.81	0.19

Intersection Summary

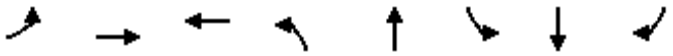
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	58	11	0	0	180	728	13	4	855	106
Future Volume (veh/h)	18	0	58	11	0	0	180	728	13	4	855	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	20	0	65	12	0	0	202	818	15	4	961	119
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	34	1150	513	23	1128	503	226	1508	673	8	1074	479
Arrive On Green	0.02	0.00	0.35	0.01	0.00	0.00	0.14	0.46	0.46	0.01	0.33	0.33
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	20	0	65	12	0	0	202	818	15	4	961	119
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.4	0.0	3.4	0.8	0.0	0.0	13.6	20.1	0.6	0.3	31.4	6.7
Cycle Q Clear(g_c), s	1.4	0.0	3.4	0.8	0.0	0.0	13.6	20.1	0.6	0.3	31.4	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	1150	513	23	1128	503	226	1508	673	8	1074	479
V/C Ratio(X)	0.59	0.00	0.13	0.53	0.00	0.00	0.89	0.54	0.02	0.47	0.90	0.25
Avail Cap(c_a), veh/h	109	1150	513	95	1128	503	226	1508	673	95	1179	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	0.0	24.3	54.6	0.0	0.0	47.2	21.3	16.1	55.3	35.4	27.2
Incr Delay (d2), s/veh	15.6	0.0	0.5	17.9	0.0	0.0	32.9	0.4	0.0	35.4	8.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	0.4	0.0	0.0	7.3	6.9	0.2	0.2	12.7	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	0.0	24.8	72.4	0.0	0.0	80.0	21.7	16.1	90.7	44.0	27.4
LnGrp LOS	E	A	C	E	A	A	F	C	B	F	D	C
Approach Vol, veh/h		85			12			1035			1084	
Approach Delay, s/veh		35.4			72.4			33.0			42.4	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	44.0	20.0	41.4	6.8	43.2	5.1	56.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	2.8	5.4	15.6	33.4	3.4	0.0	2.3	22.1
Green Ext Time (p_c), s	0.0	0.2	0.0	3.5	0.0	0.0	0.0	5.4

Intersection Summary	
HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

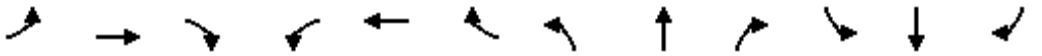


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	23	37	2	328	1100	6	921	195
v/c Ratio	0.13	0.09	0.01	1.86	0.55	0.03	0.63	0.26
Control Delay	22.7	0.4	21.5	429.6	7.1	22.8	11.7	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	0.4	21.5	429.6	7.1	22.8	11.7	2.2
Queue Length 50th (ft)	5	0	1	~134	57	1	88	0
Queue Length 95th (ft)	25	0	6	#335	181	11	131	20
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	606	804	648	176	3214	407	3223	1442
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.05	0.00	1.86	0.34	0.01	0.29	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

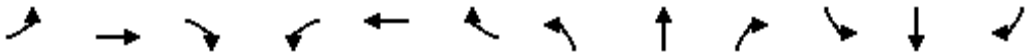
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	927	19	5	792	168
Future Volume (veh/h)	20	0	32	1	0	1	282	927	19	5	792	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1078	22	6	921	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	324	0	172	181	31	84	194	1821	37	13	1457	650
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.12	0.56	0.56	0.01	0.45	0.45
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3279	67	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	538	562	6	921	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1710	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	9.2	9.2	0.2	9.2	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	9.2	9.2	0.2	9.2	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	324	0	172	296	0	0	194	908	950	13	1457	650
V/C Ratio(X)	0.07	0.00	0.21	0.01	0.00	0.00	1.69	0.59	0.59	0.45	0.63	0.30
Avail Cap(c_a), veh/h	832	0	741	823	0	0	194	2839	2967	445	6179	2756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	16.9	16.5	0.0	0.0	18.7	6.2	6.2	20.9	9.1	7.5
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.0	333.7	0.6	0.6	22.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	19.3	1.1	1.2	0.1	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	17.5	16.5	0.0	0.0	352.4	6.9	6.8	43.4	9.5	7.8
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1428			1122	
Approach Delay, s/veh		17.3			16.5			86.2			9.4	
Approach LOS		B			B			F			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	9.5	23.4		9.5	4.8	28.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	5.0	80.0		21.5	11.5	73.5				
Max Q Clear Time (g_c+I1), s		3.0	7.0	11.2		2.0	2.2	11.2				
Green Ext Time (p_c), s		0.2	0.0	7.7		0.0	0.0	7.5				

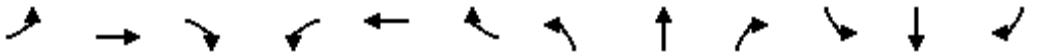
Intersection Summary												
HCM 6th Ctrl Delay			51.6									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	103	180	234	66	146	247	195	996	74	198	640	54
v/c Ratio	0.84	0.15	0.35	0.62	0.14	0.38	0.82	0.91	0.13	0.93	0.61	0.12
Control Delay	105.7	30.5	5.4	83.9	31.5	5.6	79.6	53.7	4.7	100.9	40.3	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.7	30.5	5.4	83.9	31.5	5.6	79.6	53.7	4.7	100.9	40.3	32.7
Queue Length 50th (ft)	87	56	0	55	45	0	159	414	0	168	242	32
Queue Length 95th (ft)	#195	86	58	#117	73	60	#270	#512	26	#320	307	66
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	123	1168	674	112	1075	648	264	1153	573	213	1056	472
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.15	0.35	0.59	0.14	0.38	0.74	0.86	0.13	0.93	0.61	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	167	218	61	136	230	181	926	69	184	595	50
Future Volume (veh/h)	96	167	218	61	136	230	181	926	69	184	595	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	103	180	234	66	146	247	195	996	74	198	640	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	125	1182	527	83	1099	490	220	1096	489	219	1093	487
Arrive On Green	0.07	0.35	0.35	0.05	0.33	0.33	0.13	0.33	0.33	0.13	0.33	0.33
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	103	180	234	66	146	247	195	996	74	198	640	54
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	7.7	4.7	15.2	4.9	3.9	16.8	14.4	36.0	4.4	14.7	20.1	3.2
Cycle Q Clear(g_c), s	7.7	4.7	15.2	4.9	3.9	16.8	14.4	36.0	4.4	14.7	20.1	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	1182	527	83	1099	490	220	1096	489	219	1093	487
V/C Ratio(X)	0.83	0.15	0.44	0.79	0.13	0.50	0.88	0.91	0.15	0.90	0.59	0.11
Avail Cap(c_a), veh/h	126	1182	527	115	1099	490	271	1178	526	219	1093	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	28.1	31.5	59.6	30.0	34.3	54.1	40.9	30.3	54.4	35.6	29.9
Incr Delay (d2), s/veh	34.0	0.3	2.7	22.2	0.3	3.7	24.1	10.0	0.1	35.9	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	1.9	5.7	2.6	1.6	6.4	7.4	15.6	1.6	8.2	7.9	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.9	28.4	34.2	81.8	30.2	38.0	78.2	50.9	30.4	90.3	36.4	30.0
LnGrp LOS	F	C	C	F	C	D	E	D	C	F	D	C
Approach Vol, veh/h		517			459			1265			892	
Approach Delay, s/veh		43.7			41.8			53.9			48.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	49.1	21.1	45.8	13.9	46.0	21.0	45.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	6.9	17.2	16.4	22.1	9.7	18.8	16.7	38.0
Green Ext Time (p_c), s	0.0	1.7	0.2	3.7	0.0	1.6	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	48.8
HCM 6th LOS	D

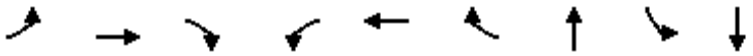
Intersection	
Int Delay, s/veh	11.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	16	29	0	1	20	168	9	0	170	56
Future Vol, veh/h	57	0	16	29	0	1	20	168	9	0	170	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	0	17	31	0	1	21	179	10	0	181	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	17	0	0	314	194	9	288	202	1
Stage 1	-	-	-	-	-	-	131	131	-	63	63	-
Stage 2	-	-	-	-	-	-	183	63	-	225	139	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1596	-	-	1574	-	-	631	694	1061	656	687	1072
Stage 1	-	-	-	-	-	-	863	780	-	938	835	-
Stage 2	-	-	-	-	-	-	810	835	-	769	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1574	-	-	447	654	1061	491	647	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	447	654	-	491	647	-
Stage 1	-	-	-	-	-	-	829	750	-	901	818	-
Stage 2	-	-	-	-	-	-	584	818	-	558	744	-

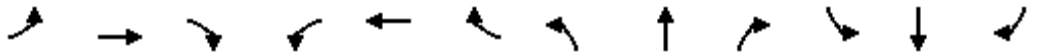
Approach	EB	WB	NB	SB
HCM Control Delay, s	5.7	7.1	13.4	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	635	1596	-	-	1574	-	-	717
HCM Lane V/C Ratio	0.33	0.038	-	-	0.02	-	-	0.335
HCM Control Delay (s)	13.4	7.3	0	-	7.3	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.1	-	-	1.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	151	419	34	28	599	182	100	93	107
v/c Ratio	0.41	0.23	0.04	0.12	0.48	0.27	0.29	0.31	0.29
Control Delay	23.7	8.6	2.1	25.7	16.1	4.2	21.2	22.9	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	8.6	2.1	25.7	16.1	4.2	21.2	22.9	17.3
Queue Length 50th (ft)	38	22	0	7	74	0	23	23	19
Queue Length 95th (ft)	105	84	9	33	151	38	72	71	66
Internal Link Dist (ft)		2540			1252		326		432
Turn Bay Length (ft)	310		300	315		155		200	
Base Capacity (vph)	965	2685	1213	965	2685	1240	1335	1173	1344
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.16	0.03	0.03	0.22	0.15	0.07	0.08	0.08

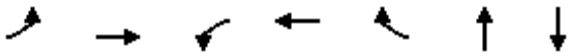
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	394	32	26	563	171	13	70	11	87	59	41
Future Volume (veh/h)	142	394	32	26	563	171	13	70	11	87	59	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	151	419	34	28	599	182	14	74	12	93	63	44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	202	1430	638	59	1145	511	144	183	28	424	141	98
Arrive On Green	0.12	0.42	0.42	0.03	0.33	0.33	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	138	1293	195	1270	993	693
Grp Volume(v), veh/h	151	419	34	28	599	182	100	0	0	93	0	107
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1626	0	0	1270	0	1686
Q Serve(g_s), s	2.8	2.7	0.4	0.5	4.6	3.0	0.0	0.0	0.0	0.0	0.0	1.9
Cycle Q Clear(g_c), s	2.8	2.7	0.4	0.5	4.6	3.0	1.9	0.0	0.0	1.6	0.0	1.9
Prop In Lane	1.00		1.00	1.00		1.00	0.14		0.12	1.00		0.41
Lane Grp Cap(c), veh/h	202	1430	638	59	1145	511	355	0	0	424	0	239
V/C Ratio(X)	0.75	0.29	0.05	0.47	0.52	0.36	0.28	0.00	0.00	0.22	0.00	0.45
Avail Cap(c_a), veh/h	1409	4113	1835	1409	4113	1835	2138	0	0	1782	0	2041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.1	6.4	5.8	15.7	8.9	8.3	12.9	0.0	0.0	12.9	0.0	13.0
Incr Delay (d2), s/veh	5.5	0.1	0.0	5.8	0.4	0.4	0.4	0.0	0.0	0.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	0.1	0.2	0.8	0.5	0.6	0.0	0.0	0.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	6.5	5.8	21.4	9.3	8.8	13.3	0.0	0.0	13.1	0.0	14.3
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	B
Approach Vol, veh/h		604			809			100			200	
Approach Delay, s/veh		9.8			9.6			13.3			13.8	
Approach LOS		A			A			B			B	

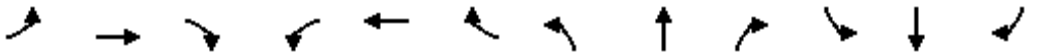
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	18.2		9.2	8.4	15.5		9.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.5	4.7		3.9	4.8	6.6		3.9				
Green Ext Time (p_c), s	0.0	2.6		1.0	0.4	4.4		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		10.4	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	94	419	168	460	186	307	250
v/c Ratio	0.37	0.50	0.54	0.41	0.30	0.59	0.65
Control Delay	40.3	28.2	39.4	24.3	5.4	27.1	31.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	28.2	39.4	24.3	5.4	27.1	31.6
Queue Length 50th (ft)	41	84	72	91	0	111	94
Queue Length 95th (ft)	98	150	150	155	33	204	182
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	428	1462	653	1938	946	843	627
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.29	0.26	0.24	0.20	0.36	0.40

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	285	50	134	368	149	38	140	67	87	72	41
Future Volume (veh/h)	75	285	50	134	368	149	38	140	67	87	72	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	94	356	62	168	460	186	48	175	84	109	90	51
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	225	807	139	267	1030	460	114	281	123	218	168	77
Arrive On Green	0.13	0.28	0.28	0.16	0.30	0.30	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1711	2910	502	1711	3413	1522	169	1049	459	493	627	287
Grp Volume(v), veh/h	94	207	211	168	460	186	307	0	0	250	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1706	1711	1706	1522	1677	0	0	1407	0	0
Q Serve(g_s), s	3.0	6.0	6.1	5.5	6.5	5.9	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	6.0	6.1	5.5	6.5	5.9	9.5	0.0	0.0	9.2	0.0	0.0
Prop In Lane	1.00		0.29	1.00		1.00	0.16		0.27	0.44		0.20
Lane Grp Cap(c), veh/h	225	473	473	267	1030	460	518	0	0	462	0	0
V/C Ratio(X)	0.42	0.44	0.45	0.63	0.45	0.40	0.59	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	540	935	935	824	2437	1087	1150	0	0	999	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.0	17.9	17.9	23.8	17.0	16.7	19.7	0.0	0.0	19.3	0.0	0.0
Incr Delay (d2), s/veh	1.2	2.3	2.4	2.4	1.1	2.1	3.9	0.0	0.0	3.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.2	2.3	2.1	2.2	1.9	3.9	0.0	0.0	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	20.2	20.3	26.2	18.1	18.8	23.6	0.0	0.0	22.8	0.0	0.0
LnGrp LOS	C	C	C	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		512			814			307			250	
Approach Delay, s/veh		21.2			19.9			23.6			22.8	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	23.7		23.1	11.9	25.2		23.1				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	7.5	8.1		11.5	5.0	8.5		11.2				
Green Ext Time (p_c), s	0.4	5.4		4.6	0.2	9.6		3.8				

Intersection Summary			
HCM 6th Ctrl Delay		21.2	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	8	28	0	2	0
Future Vol, veh/h	0	8	28	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	15	52	0	4	0

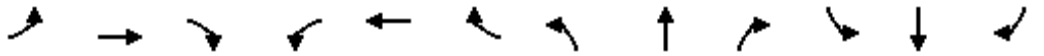
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	52	0	-	0	67	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	15	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1387	-	-	-	871	939
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1387	-	-	-	871	939
Mov Cap-2 Maneuver	-	-	-	-	871	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	938	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1387	-	-	-	871
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	91	405	4	791	231	9	8	68	29
v/c Ratio	0.33	0.23	0.02	0.62	0.40	0.05	0.04	0.28	0.08
Control Delay	32.3	8.8	34.5	19.6	19.1	34.1	34.1	32.6	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	8.8	34.5	19.6	19.1	34.1	34.1	32.6	25.6
Queue Length 50th (ft)	33	36	2	135	68	3	3	25	8
Queue Length 95th (ft)	89	93	12	232	147	19	18	72	38
Internal Link Dist (ft)		1213		1278			262		404
Turn Bay Length (ft)	300		300		200	200		300	
Base Capacity (vph)	486	2594	486	2602	1164	486	651	486	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.16	0.01	0.30	0.20	0.02	0.01	0.14	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	356	8	4	712	208	8	5	2	61	2	24
Future Volume (veh/h)	82	356	8	4	712	208	8	5	2	61	2	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	91	396	9	4	791	231	9	6	2	68	2	27
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	125	1476	34	9	1246	556	20	136	45	106	16	222
Arrive On Green	0.07	0.44	0.44	0.01	0.37	0.37	0.01	0.11	0.11	0.06	0.16	0.16
Sat Flow, veh/h	1682	3355	76	1682	3357	1497	1682	1268	423	1682	104	1409
Grp Volume(v), veh/h	91	198	207	4	791	231	9	0	8	68	0	29
Grp Sat Flow(s),veh/h/ln	1682	1678	1753	1682	1678	1497	1682	0	1691	1682	0	1513
Q Serve(g_s), s	2.5	3.5	3.5	0.1	9.1	5.4	0.2	0.0	0.2	1.8	0.0	0.8
Cycle Q Clear(g_c), s	2.5	3.5	3.5	0.1	9.1	5.4	0.2	0.0	0.2	1.8	0.0	0.8
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.25	1.00		0.93
Lane Grp Cap(c), veh/h	125	738	771	9	1246	556	20	0	181	106	0	239
V/C Ratio(X)	0.73	0.27	0.27	0.44	0.63	0.42	0.45	0.00	0.04	0.64	0.00	0.12
Avail Cap(c_a), veh/h	558	1813	1893	558	3625	1617	558	0	741	558	0	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	8.3	8.3	23.2	12.1	10.9	23.0	0.0	18.7	21.4	0.0	16.9
Incr Delay (d2), s/veh	7.9	0.2	0.2	29.9	0.5	0.5	15.3	0.0	0.1	6.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.8	0.8	0.1	2.2	1.5	0.2	0.0	0.1	0.8	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	8.5	8.5	53.1	12.6	11.4	38.3	0.0	18.8	27.8	0.0	17.1
LnGrp LOS	C	A	A	D	B	B	D	A	B	C	A	B
Approach Vol, veh/h		496			1026			17			97	
Approach Delay, s/veh		12.3			12.5			29.1			24.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	25.1	5.1	11.9	8.0	21.9	7.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.1	5.5	2.2	2.8	4.5	11.1	3.8	2.2
Green Ext Time (p_c), s	0.0	2.1	0.0	0.1	0.1	6.3	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	66	30	41	108	4	17	31	12	2	57	8
Future Vol, veh/h	5	66	30	41	108	4	17	31	12	2	57	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	92	42	57	150	6	24	43	17	3	79	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9.5	8.6	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	5%	27%	3%
Vol Thru, %	52%	65%	71%	85%
Vol Right, %	20%	30%	3%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	101	153	67
LT Vol	17	5	41	2
Through Vol	31	66	108	57
RT Vol	12	30	4	8
Lane Flow Rate	83	140	212	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.114	0.178	0.276	0.127
Departure Headway (Hd)	4.921	4.556	4.672	4.906
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	726	786	767	729
Service Time	2.966	2.592	2.707	2.95
HCM Lane V/C Ratio	0.114	0.178	0.276	0.128
HCM Control Delay	8.6	8.6	9.5	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	1.1	0.4

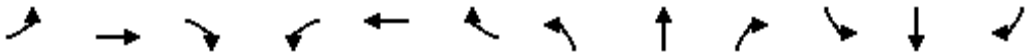
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	8	0	0	0	27	67	0	0	133	0
Future Vol, veh/h	1	0	8	0	0	0	27	67	0	0	133	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	0	12	0	0	0	42	103	0	0	205	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	392	392	205	398	392	103	205	0	0	-	-	0
Stage 1	205	205	-	187	187	-	-	-	-	-	-	-
Stage 2	187	187	-	211	205	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	-	-	-
Pot Cap-1 Maneuver	557	535	821	552	535	936	1331	-	-	0	-	-
Stage 1	783	721	-	801	734	-	-	-	-	0	-	-
Stage 2	801	734	-	778	721	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	543	517	821	530	517	936	1331	-	-	-	-	-
Mov Cap-2 Maneuver	543	517	-	530	517	-	-	-	-	-	-	-
Stage 1	757	721	-	775	710	-	-	-	-	-	-	-
Stage 2	775	710	-	766	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	0	2.2	0
HCM LOS	A	A		

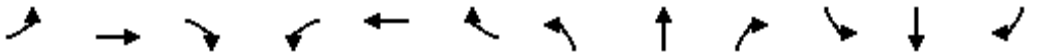
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1331	-	-	777	-	-	-
HCM Lane V/C Ratio	0.031	-	-	0.018	-	-	-
HCM Control Delay (s)	7.8	0	-	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	30	343	181	124	647	48	369	133	71	19	158	47
v/c Ratio	0.18	0.50	0.59	0.48	0.54	0.09	0.79	0.10	0.11	0.12	0.37	0.24
Control Delay	35.9	28.8	35.5	36.3	22.1	19.0	41.1	18.1	19.7	35.8	33.3	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	28.8	35.5	36.3	22.1	19.0	41.1	18.1	19.7	35.8	33.3	34.4
Queue Length 50th (ft)	12	71	73	51	104	12	150	16	17	8	34	19
Queue Length 95th (ft)	41	121	148	112	207	43	#367	51	63	31	71	55
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	374	1857	830	374	1857	830	470	1478	661	470	1374	614
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.18	0.22	0.33	0.35	0.06	0.79	0.09	0.11	0.04	0.11	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	309	163	112	582	43	332	120	64	17	142	42
Future Volume (veh/h)	27	309	163	112	582	43	332	120	64	17	142	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	30	343	181	124	647	48	369	133	71	19	158	47
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	58	765	341	162	971	433	436	1131	504	40	342	153
Arrive On Green	0.03	0.22	0.22	0.09	0.28	0.28	0.25	0.33	0.33	0.02	0.10	0.10
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	30	343	181	124	647	48	369	133	71	19	158	47
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.9	4.6	5.5	3.7	8.8	1.2	10.8	1.4	1.7	0.6	2.3	1.5
Cycle Q Clear(g_c), s	0.9	4.6	5.5	3.7	8.8	1.2	10.8	1.4	1.7	0.6	2.3	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	58	765	341	162	971	433	436	1131	504	40	342	153
V/C Ratio(X)	0.51	0.45	0.53	0.77	0.67	0.11	0.85	0.12	0.14	0.48	0.46	0.31
Avail Cap(c_a), veh/h	505	2505	1117	505	2505	1117	636	1854	827	636	1854	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	18.0	18.3	23.6	17.0	14.3	19.0	12.6	12.7	25.7	22.7	22.3
Incr Delay (d2), s/veh	6.8	0.4	1.3	7.4	0.8	0.1	7.1	0.0	0.1	8.5	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.5	1.8	1.6	2.8	0.4	4.4	0.5	0.5	0.3	0.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	18.4	19.6	31.0	17.8	14.4	26.1	12.6	12.8	34.2	23.7	23.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		554			819			573			224	
Approach Delay, s/veh		19.5			19.6			21.3			24.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	16.3	17.9	9.8	6.3	19.4	5.7	21.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.7	7.5	12.8	4.3	2.9	10.8	2.6	3.7
Green Ext Time (p_c), s	0.2	2.5	0.6	1.0	0.0	4.1	0.0	0.9

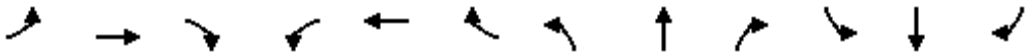
Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	23.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	23	135	21	98	60	414	72	69	378	25
Future Vol, veh/h	5	2	23	135	21	98	60	414	72	69	378	25
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	6	3	29	173	27	126	77	531	92	88	485	32
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

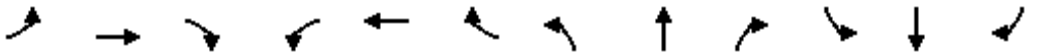
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.4	17.8	26.8	23.5
HCM LOS	B	C	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	17%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	66%	7%	0%	18%	0%	100%	83%
Vol Right, %	0%	0%	34%	77%	0%	82%	0%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	276	210	30	135	119	69	252	151
LT Vol	60	0	0	5	135	0	69	0	0
Through Vol	0	276	138	2	0	21	0	252	126
RT Vol	0	0	72	23	0	98	0	0	25
Lane Flow Rate	77	354	269	38	173	153	88	323	194
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.181	0.784	0.578	0.103	0.451	0.351	0.213	0.731	0.431
Departure Headway (Hd)	8.49	7.977	7.73	9.638	9.382	8.289	8.654	8.14	8.021
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	421	453	466	374	382	432	413	443	447
Service Time	6.276	5.762	5.515	7.338	7.182	6.088	6.442	5.928	5.808
HCM Lane V/C Ratio	0.183	0.781	0.577	0.102	0.453	0.354	0.213	0.729	0.434
HCM Control Delay	13.2	34.3	20.7	13.4	19.7	15.6	13.8	30.2	16.8
HCM Lane LOS	B	D	C	B	C	C	B	D	C
HCM 95th-tile Q	0.7	6.9	3.6	0.3	2.3	1.6	0.8	5.8	2.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	42	2	48	242	33	7	213	578	52	2	505	136
v/c Ratio	0.30	0.01	0.29	0.62	0.06	0.01	0.61	0.36	0.07	0.02	0.65	0.39
Control Delay	41.1	32.0	37.8	35.6	22.8	23.0	37.5	14.7	13.5	37.0	31.2	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	32.0	37.8	35.6	22.8	23.0	37.5	14.7	13.5	37.0	31.2	29.1
Queue Length 50th (ft)	19	1	22	103	12	3	93	84	12	1	115	55
Queue Length 95th (ft)	49	7	51	180	32	12	164	145	37	7	155	99
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	146	843	717	411	1122	954	364	2072	927	116	1579	707
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.00	0.07	0.59	0.03	0.01	0.59	0.28	0.06	0.02	0.32	0.19

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	2	40	201	27	6	177	480	43	2	419	113
Future Volume (veh/h)	35	2	40	201	27	6	177	480	43	2	419	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	2	48	242	33	7	213	578	52	2	505	136
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	76	174	147	304	413	350	270	1349	602	5	820	366
Arrive On Green	0.04	0.09	0.09	0.17	0.22	0.22	0.15	0.39	0.39	0.00	0.23	0.23
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	42	2	48	242	33	7	213	578	52	2	505	136
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	1.2	0.1	1.5	7.0	0.8	0.2	6.2	6.4	1.1	0.1	6.8	3.9
Cycle Q Clear(g_c), s	1.2	0.1	1.5	7.0	0.8	0.2	6.2	6.4	1.1	0.1	6.8	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	174	147	304	413	350	270	1349	602	5	820	366
V/C Ratio(X)	0.55	0.01	0.33	0.80	0.08	0.02	0.79	0.43	0.09	0.42	0.62	0.37
Avail Cap(c_a), veh/h	208	1199	1016	586	1595	1351	519	2944	1313	165	2244	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	21.8	22.4	21.0	16.2	16.0	21.6	12.0	10.3	26.4	18.1	17.0
Incr Delay (d2), s/veh	6.1	0.0	1.3	4.7	0.1	0.0	5.1	0.2	0.1	48.8	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.5	3.0	0.3	0.1	2.6	2.0	0.3	0.1	2.4	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	21.8	23.7	25.7	16.3	16.0	26.7	12.2	10.4	75.2	18.9	17.6
LnGrp LOS	C	C	C	C	B	B	C	B	B	E	B	B
Approach Vol, veh/h		92			282			843			643	
Approach Delay, s/veh		26.9			24.4			15.7			18.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	9.6	12.7	17.0	6.8	16.5	4.6	25.0
Change Period (Y+Rc), s	4.5	* 4.6	4.5	* 4.6	4.5	* 4.6	4.5	* 4.6
Max Green Setting (Gmax), s	17.7	* 35	15.7	* 34	6.3	* 46	5.0	* 45
Max Q Clear Time (g_c+I1), s	9.0	3.5	8.2	8.8	3.2	2.8	2.1	8.4
Green Ext Time (p_c), s	0.5	0.1	0.3	3.6	0.0	0.2	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

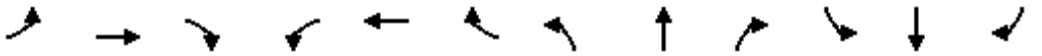
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	455	96	443	128	258	745	118	84	639	154
v/c Ratio	0.50	0.37	0.73	0.35	0.20	0.89	0.62	0.19	0.58	0.76	0.41
Control Delay	64.5	16.6	82.1	28.2	5.1	77.8	33.1	5.4	65.6	44.7	37.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	16.6	82.1	28.2	5.1	77.8	33.1	5.4	65.6	44.7	37.9
Queue Length 50th (ft)	44	68	68	123	0	180	240	0	57	221	92
Queue Length 95th (ft)	87	108	#148	171	30	#321	273	30	108	256	138
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	142	1233	133	1268	653	289	1406	698	165	1158	518
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.37	0.72	0.35	0.20	0.89	0.53	0.17	0.51	0.55	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	202	176	80	368	106	214	618	98	70	530	128
Future Volume (veh/h)	53	202	176	80	368	106	214	618	98	70	530	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	64	243	212	96	443	128	258	745	118	84	639	154
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	82	648	542	120	1331	594	287	1168	521	107	807	360
Arrive On Green	0.05	0.36	0.36	0.07	0.38	0.38	0.17	0.34	0.34	0.06	0.23	0.23
Sat Flow, veh/h	1739	1791	1499	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	64	235	220	96	443	128	258	745	118	84	639	154
Grp Sat Flow(s),veh/h/ln	1739	1735	1556	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.8	10.5	11.0	5.7	9.5	5.8	15.3	19.1	5.8	5.0	18.2	8.9
Cycle Q Clear(g_c), s	3.8	10.5	11.0	5.7	9.5	5.8	15.3	19.1	5.8	5.0	18.2	8.9
Prop In Lane	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	627	563	120	1331	594	287	1168	521	107	807	360
V/C Ratio(X)	0.78	0.37	0.39	0.80	0.33	0.22	0.90	0.64	0.23	0.79	0.79	0.43
Avail Cap(c_a), veh/h	151	627	563	141	1331	594	306	1482	661	175	1221	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	24.8	24.9	48.2	22.9	21.8	43.0	29.4	25.0	48.6	37.9	34.4
Incr Delay (d2), s/veh	14.8	1.7	2.0	23.7	0.7	0.8	26.3	0.6	0.2	12.0	2.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.3	4.1	3.1	3.7	2.2	8.5	7.7	2.1	2.5	7.7	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	26.5	27.0	71.9	23.6	22.6	69.3	30.0	25.2	60.7	40.0	35.2
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		519			667			1121			877	
Approach Delay, s/veh		31.4			30.3			38.6			41.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	42.5	21.9	29.0	9.4	44.8	10.9	39.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	7.7	13.0	17.3	20.2	5.8	11.5	7.0	21.1
Green Ext Time (p_c), s	0.0	2.4	0.1	4.3	0.0	2.9	0.0	5.5

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	85	75	1153	33	637
v/c Ratio	0.23	0.19	0.69	0.11	0.27
Control Delay	40.3	9.7	25.6	43.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	9.7	25.6	43.3	6.8
Queue Length 50th (ft)	54	0	346	22	84
Queue Length 95th (ft)	88	29	346	45	92
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	376	394	1682	290	2398
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	0.19	0.69	0.11	0.27

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	67	59	878	33	26	503
Future Volume (veh/h)	67	59	878	33	26	503
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	85	75	1111	42	33	637
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1676	63	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3471	128	1725	3532
Grp Volume(v), veh/h	85	75	565	588	33	637
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1788	1725	1721
Q Serve(g_s), s	4.8	4.8	29.6	29.6	1.9	8.1
Cycle Q Clear(g_c), s	4.8	4.8	29.6	29.6	1.9	8.1
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	381	339	853	887	295	2423
V/C Ratio(X)	0.22	0.22	0.66	0.66	0.11	0.26
Avail Cap(c_a), veh/h	381	339	853	887	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	38.3	22.7	22.7	42.1	6.4
Incr Delay (d2), s/veh	1.4	1.5	1.9	1.9	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	12.2	12.6	0.9	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.7	39.8	24.6	24.6	42.8	6.7
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	160		1153			670
Approach Delay, s/veh	39.7		24.6			8.5
Approach LOS	D		C			A

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				89.0		31.0	25.0	64.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				84.5		26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s				10.1		6.8	3.9	31.6
Green Ext Time (p_c), s				5.2		0.4	0.0	9.2

Intersection Summary								
HCM 6th Ctrl Delay			20.4					
HCM 6th LOS			C					

Intersection	
Int Delay, s/veh	19.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	419	11	83	789	0	68	0	82	0	0	0
Future Vol, veh/h	0	419	11	83	789	0	68	0	82	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	476	13	94	897	0	77	0	93	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	897	0	0	489	0	0	1568	1568	483	1614	1574	897
Stage 1	-	-	-	-	-	-	483	483	-	1085	1085	-
Stage 2	-	-	-	-	-	-	1085	1085	-	529	489	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	757	-	-	1074	-	-	90	111	584	84	110	339
Stage 1	-	-	-	-	-	-	565	553	-	262	293	-
Stage 2	-	-	-	-	-	-	262	293	-	533	549	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	757	-	-	1074	-	-	78	92	584	61	91	339
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	92	-	61	91	-
Stage 1	-	-	-	-	-	-	565	553	-	262	242	-
Stage 2	-	-	-	-	-	-	216	242	-	448	549	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	180.8	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	757	-	-	1074	-	-	-
HCM Lane V/C Ratio	1.152	-	-	-	0.088	-	-	-
HCM Control Delay (s)	180.8	0	-	-	8.7	0	-	0
HCM Lane LOS	F	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	9.5	0	-	-	0.3	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	109	4	41	202	8	7	10	43	25	6	15
Future Vol, veh/h	10	109	4	41	202	8	7	10	43	25	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	147	5	55	273	11	9	14	58	34	8	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	284	0	0	152	0	0	581	572	150	603	569	279
Stage 1	-	-	-	-	-	-	178	178	-	389	389	-
Stage 2	-	-	-	-	-	-	403	394	-	214	180	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1284	-	-	1435	-	-	427	432	899	412	433	762
Stage 1	-	-	-	-	-	-	826	754	-	637	610	-
Stage 2	-	-	-	-	-	-	626	607	-	790	752	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1284	-	-	1435	-	-	394	411	899	362	412	762
Mov Cap-2 Maneuver	-	-	-	-	-	-	394	411	-	362	412	-
Stage 1	-	-	-	-	-	-	817	746	-	630	587	-
Stage 2	-	-	-	-	-	-	578	584	-	718	744	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.2	10.9	14.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	394	734	1284	-	-	1435	-	-	445
HCM Lane V/C Ratio	0.024	0.098	0.011	-	-	0.039	-	-	0.14
HCM Control Delay (s)	14.4	10.4	7.8	-	-	7.6	-	-	14.4
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.3	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	39	16	54	89	1	26	1	24	0	0	0
Future Vol, veh/h	0	39	16	54	89	1	26	1	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	19	64	106	1	31	1	29	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	65	0	0	291	291	56	306	300	107
Stage 1	-	-	-	-	-	-	56	56	-	235	235	-
Stage 2	-	-	-	-	-	-	235	235	-	71	65	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1484	-	-	1537	-	-	661	619	1011	646	612	947
Stage 1	-	-	-	-	-	-	956	848	-	768	710	-
Stage 2	-	-	-	-	-	-	768	710	-	939	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1537	-	-	639	592	1011	606	585	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	639	592	-	606	585	-
Stage 1	-	-	-	-	-	-	956	848	-	768	679	-
Stage 2	-	-	-	-	-	-	734	679	-	911	841	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.8	10.1	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	771	1484	-	-	1537	-	-	-
HCM Lane V/C Ratio	0.079	-	-	-	0.042	-	-	-
HCM Control Delay (s)	10.1	0	-	-	7.4	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	-

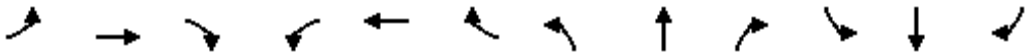
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	11	0	5	0	50	3	2	72	0
Future Vol, veh/h	0	0	0	11	0	5	0	50	3	2	72	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	14	0	6	0	63	4	3	90	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	164	163	90	161	161	65	90	0	0	67	0	0
Stage 1	96	96	-	65	65	-	-	-	-	-	-	-
Stage 2	68	67	-	96	96	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	798	728	965	802	729	996	1499	-	-	1528	-	-
Stage 1	908	814	-	943	839	-	-	-	-	-	-	-
Stage 2	940	837	-	908	814	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	792	727	965	800	728	996	1499	-	-	1528	-	-
Mov Cap-2 Maneuver	792	727	-	800	728	-	-	-	-	-	-	-
Stage 1	908	812	-	943	839	-	-	-	-	-	-	-
Stage 2	934	837	-	906	812	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.3	0	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	-	852	1528	-	-
HCM Lane V/C Ratio	-	-	-	-	0.023	0.002	-	-
HCM Control Delay (s)	0	-	-	0	9.3	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-

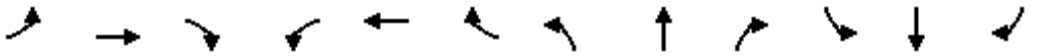


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	371	99	233	767	214	165	314	185	225	406	171
v/c Ratio	0.89	0.57	0.15	0.88	1.05	0.30	1.42	0.78	0.38	1.09	0.43	0.31
Control Delay	90.7	34.2	2.4	78.8	81.0	7.6	273.1	54.3	7.2	133.7	34.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	34.2	2.4	78.8	81.0	7.6	273.1	54.3	7.2	133.7	34.3	5.9
Queue Length 50th (ft)	120	209	0	162	~586	19	~156	210	0	~177	124	0
Queue Length 95th (ft)	#224	293	7	#275	#752	54	#271	260	33	#303	145	31
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	193	655	644	265	731	724	116	577	618	207	1280	681
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.57	0.15	0.88	1.05	0.30	1.42	0.54	0.30	1.09	0.32	0.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	293	78	184	606	169	130	248	146	178	321	135
Future Volume (veh/h)	135	293	78	184	606	169	130	248	146	178	321	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	371	99	233	767	214	165	314	185	225	406	171
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	685	580	262	751	637	120	372	315	214	895	399
Arrive On Green	0.11	0.37	0.37	0.15	0.40	0.40	0.07	0.20	0.20	0.12	0.25	0.25
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	171	371	99	233	767	214	165	314	185	225	406	171
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	10.1	16.8	4.5	13.8	43.1	10.0	7.2	17.4	11.4	12.9	10.4	9.7
Cycle Q Clear(g_c), s	10.1	16.8	4.5	13.8	43.1	10.0	7.2	17.4	11.4	12.9	10.4	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	685	580	262	751	637	120	372	315	214	895	399
V/C Ratio(X)	0.86	0.54	0.17	0.89	1.02	0.34	1.38	0.85	0.59	1.05	0.45	0.43
Avail Cap(c_a), veh/h	199	685	580	274	751	637	120	593	502	214	1315	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	26.9	23.0	44.9	32.1	22.2	50.1	41.4	39.0	47.2	33.9	33.7
Incr Delay (d2), s/veh	29.2	3.1	0.6	27.1	38.3	1.4	214.9	6.4	1.7	75.5	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	7.5	1.7	7.7	25.3	3.8	10.2	8.3	4.4	10.0	4.3	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	30.0	23.6	72.0	70.4	23.6	264.9	47.8	40.8	122.7	34.3	34.4
LnGrp LOS	E	C	C	E	F	C	F	D	D	F	C	C
Approach Vol, veh/h		641			1214			664			802	
Approach Delay, s/veh		41.3			62.5			99.8			59.1	
Approach LOS		D			E			F			E	

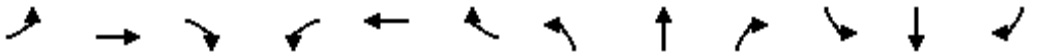
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	43.8	11.7	31.5	16.5	47.6	17.4	25.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	15.8	18.8	9.2	12.4	12.1	45.1	14.9	19.4
Green Ext Time (p_c), s	0.0	2.1	0.0	3.0	0.0	0.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	65.0
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	428	279	260	173	426	131	50	727
v/c Ratio	0.53	0.73	0.86	0.33	0.84	0.71	0.22	0.58	0.87
Control Delay	67.1	36.8	71.7	23.2	84.1	43.6	5.6	82.6	55.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	36.8	71.7	23.2	84.1	43.6	5.6	82.6	55.0
Queue Length 50th (ft)	54	234	208	128	133	297	0	39	284
Queue Length 95th (ft)	99	334	#314	184	#236	395	37	#90	#348
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	154	583	355	790	213	604	605	86	837
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.73	0.79	0.33	0.81	0.71	0.22	0.58	0.87

Intersection Summary

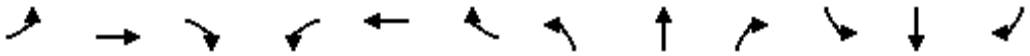
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	112	256	240	173	51	149	366	113	43	554	71
Future Volume (veh/h)	62	112	256	240	173	51	149	366	113	43	554	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	130	298	279	201	59	173	426	131	50	644	83
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	159	364	309	606	178	201	598	507	64	770	99
Arrive On Green	0.05	0.31	0.31	0.17	0.44	0.44	0.11	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	505	1157	1781	1389	408	1781	1870	1585	1781	3166	408
Grp Volume(v), veh/h	72	0	428	279	0	260	173	426	131	50	361	366
Grp Sat Flow(s),veh/h/ln	1781	0	1662	1781	0	1797	1781	1870	1585	1781	1777	1797
Q Serve(g_s), s	4.6	0.0	27.4	17.7	0.0	11.0	11.0	23.1	7.1	3.2	22.2	22.3
Cycle Q Clear(g_c), s	4.6	0.0	27.4	17.7	0.0	11.0	11.0	23.1	7.1	3.2	22.2	22.3
Prop In Lane	1.00		0.70	1.00		0.23	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	92	0	522	309	0	783	201	598	507	64	432	437
V/C Ratio(X)	0.78	0.00	0.82	0.90	0.00	0.33	0.86	0.71	0.26	0.78	0.84	0.84
Avail Cap(c_a), veh/h	159	0	522	365	0	783	220	598	507	88	432	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	0.0	36.5	46.6	0.0	21.4	50.2	34.5	29.0	55.0	41.4	41.4
Incr Delay (d2), s/veh	13.1	0.0	13.4	22.6	0.0	1.1	26.1	7.1	1.2	25.1	17.2	17.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	12.5	9.5	0.0	4.6	6.2	11.2	2.8	1.9	11.4	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	0.0	49.9	69.2	0.0	22.6	76.3	41.6	30.3	80.2	58.6	58.6
LnGrp LOS	E	A	D	E	A	C	E	D	C	F	E	E
Approach Vol, veh/h		500			539			730			777	
Approach Delay, s/veh		52.3			46.7			47.8			60.0	
Approach LOS		D			D			D			E	

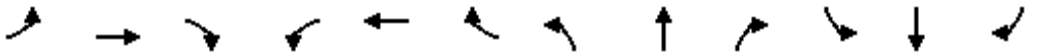
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.5	40.7	17.5	32.5	10.5	54.7	8.7	41.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	19.7	29.4	13.0	24.3	6.6	13.0	5.2	25.1
Green Ext Time (p_c), s	0.3	1.4	0.1	1.4	0.0	1.5	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	52.2
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	55	279	49	185	329	169	250	552	179	349	840	109
v/c Ratio	0.50	0.28	0.09	0.77	0.25	0.24	0.82	0.70	0.39	0.87	0.86	0.25
Control Delay	81.6	42.1	0.3	80.5	33.3	5.7	77.9	55.0	14.5	74.8	57.3	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.6	42.1	0.3	80.5	33.3	5.7	77.9	55.0	14.5	74.8	57.3	41.3
Queue Length 50th (ft)	51	110	0	170	118	0	228	253	28	316	392	79
Queue Length 95th (ft)	98	154	0	250	159	46	318	306	86	424	457	129
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	129	999	549	294	1323	697	373	942	525	477	1151	515
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.28	0.09	0.63	0.25	0.24	0.67	0.59	0.34	0.73	0.73	0.21

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	240	42	159	283	145	215	475	154	300	722	94
Future Volume (veh/h)	47	240	42	159	283	145	215	475	154	300	722	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	279	49	185	329	169	250	552	179	349	840	109
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	1091	487	213	1374	613	279	782	349	380	982	438
Arrive On Green	0.04	0.31	0.31	0.12	0.39	0.39	0.16	0.22	0.22	0.21	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	55	279	49	185	329	169	250	552	179	349	840	109
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.9	7.6	2.8	13.1	8.0	9.4	17.7	18.4	12.7	24.6	28.7	6.9
Cycle Q Clear(g_c), s	3.9	7.6	2.8	13.1	8.0	9.4	17.7	18.4	12.7	24.6	28.7	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	1091	487	213	1374	613	279	782	349	380	982	438
V/C Ratio(X)	0.78	0.26	0.10	0.87	0.24	0.28	0.90	0.71	0.51	0.92	0.86	0.25
Avail Cap(c_a), veh/h	137	1091	487	312	1374	613	396	997	445	507	1219	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	33.4	31.8	55.5	26.6	27.0	53.0	46.2	44.0	49.4	44.0	36.1
Incr Delay (d2), s/veh	16.3	0.6	0.4	15.9	0.4	1.1	17.1	1.6	1.2	18.4	5.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.2	1.1	6.6	3.3	3.6	9.0	8.1	5.0	12.6	12.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.3	34.0	32.2	71.4	27.0	28.1	70.1	47.8	45.2	67.7	49.1	36.4
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		383			683			981			1298	
Approach Delay, s/veh		40.0			39.3			53.0			53.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	43.9	24.6	39.9	9.6	54.1	31.8	32.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	37.0	28.5	44.0	9.9	49.6	36.5	36.0
Max Q Clear Time (g_c+I1), s	15.1	9.6	19.7	30.7	5.9	11.4	26.6	20.4
Green Ext Time (p_c), s	0.3	1.7	0.5	4.7	0.0	2.4	0.7	3.5

Intersection Summary	
HCM 6th Ctrl Delay	48.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	66	2	0	128
Future Vol, veh/h	5	1	66	2	0	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	8	2	102	3	0	197

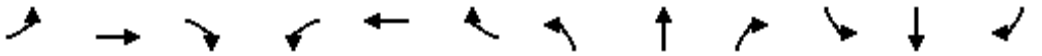
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	301	104	0	0	105	0
Stage 1	104	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	678	935	-	-	1450	-
Stage 1	905	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	678	935	-	-	1450	-
Mov Cap-2 Maneuver	678	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	822	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	711	1450	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Control Delay (s)	-	-	10.1	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	41	854	74	852	52
v/c Ratio	0.12	0.45	0.48	0.37	0.15
Control Delay	12.6	13.9	58.2	6.7	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	13.9	58.2	6.7	10.7
Queue Length 50th (ft)	12	171	51	108	0
Queue Length 95th (ft)	33	241	99	136	32
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	335	1916	289	2632	355
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.12	0.45	0.26	0.32	0.15

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	783	3	68	784	0	11	0	37	0	0	0
Future Volume (veh/h)	38	783	3	68	784	0	11	0	37	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	41	851	3	74	852	0	12	0	40			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	425	2024	7	94	2305	0	73	0	243			
Arrive On Green	0.61	0.61	0.61	0.06	0.70	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	596	3344	12	1640	3358	0	346	0	1152			
Grp Volume(v), veh/h	41	416	438	74	852	0	52	0	0			
Grp Sat Flow(s),veh/h/ln	596	1636	1720	1640	1636	0	1498	0	0			
Q Serve(g_s), s	3.1	14.4	14.4	4.7	11.1	0.0	3.0	0.0	0.0			
Cycle Q Clear(g_c), s	3.7	14.4	14.4	4.7	11.1	0.0	3.0	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.23		0.77			
Lane Grp Cap(c), veh/h	425	990	1041	94	2305	0	316	0	0			
V/C Ratio(X)	0.10	0.42	0.42	0.79	0.37	0.00	0.16	0.00	0.00			
Avail Cap(c_a), veh/h	425	990	1041	300	2717	0	316	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.1	11.1	11.1	49.6	6.3	0.0	34.4	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.3	1.2	13.7	0.1	0.0	1.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.6	4.9	2.2	2.8	0.0	1.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	12.5	12.4	63.3	6.4	0.0	35.5	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		895			926			52				
Approach Delay, s/veh		12.3			10.9			35.5				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	10.6	69.0				79.6		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	6.7	16.4				13.1		5.0				
Green Ext Time (p_c), s	0.1	5.7				6.1		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	89	241	49	816	114	83	551
v/c Ratio	0.18	0.58	0.22	0.63	0.20	0.33	0.37
Control Delay	21.0	28.4	33.5	19.7	16.6	33.1	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	28.4	33.5	19.7	16.6	33.1	14.3
Queue Length 50th (ft)	27	82	18	134	29	30	79
Queue Length 95th (ft)	69	179	56	236	75	82	144
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	828	685	506	3058	1368	567	3113
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.35	0.10	0.27	0.08	0.15	0.18

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	61	17	86	60	66	43	718	100	73	485	0
Future Volume (veh/h)	1	61	17	86	60	66	43	718	100	73	485	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	1	69	19	98	68	75	49	816	114	83	551	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	87	304	83	230	123	105	89	1319	588	127	1394	0
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.05	0.38	0.38	0.07	0.41	0.00
Sat Flow, veh/h	5	1365	372	493	553	472	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	89	0	0	241	0	0	49	816	114	83	551	0
Grp Sat Flow(s),veh/h/ln	1742	0	0	1518	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	4.3	0.0	0.0	1.2	8.1	2.1	2.0	4.8	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	6.1	0.0	0.0	1.2	8.1	2.1	2.0	4.8	0.0
Prop In Lane	0.01		0.21	0.41		0.31	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	475	0	0	459	0	0	89	1319	588	127	1394	0
V/C Ratio(X)	0.19	0.00	0.00	0.53	0.00	0.00	0.55	0.62	0.19	0.65	0.40	0.00
Avail Cap(c_a), veh/h	1177	0	0	1055	0	0	675	5016	2237	756	5180	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.4	0.0	0.0	15.0	0.0	0.0	19.5	10.5	8.7	19.0	8.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.9	0.0	0.0	5.2	0.5	0.2	5.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.9	0.0	0.0	0.5	1.8	0.4	0.8	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.6	0.0	0.0	15.9	0.0	0.0	24.7	11.0	8.8	24.6	9.1	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	A	C	A	A
Approach Vol, veh/h		89			241			979			634	
Approach Delay, s/veh		13.6			15.9			11.4			11.1	
Approach LOS		B			B			B			B	

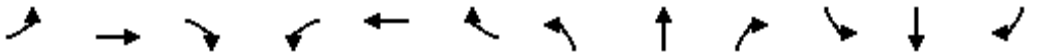
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.9	6.7	21.6		13.9	7.6	20.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	16.5	63.5		26.5	18.5	61.5				
Max Q Clear Time (g_c+I1), s		3.8	3.2	6.8		8.1	4.0	10.1				
Green Ext Time (p_c), s		0.4	0.1	3.5		1.3	0.1	6.1				

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	283	450	121	213	415	127	215	692	200	105	720
v/c Ratio	0.83	0.57	0.26	0.73	0.60	0.31	0.80	0.68	0.37	0.67	0.87
Control Delay	63.3	42.3	6.8	59.0	45.5	8.0	67.7	37.0	14.1	72.1	47.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.3	42.3	6.8	59.0	45.5	8.0	67.7	37.0	14.1	72.1	47.2
Queue Length 50th (ft)	206	160	0	156	155	0	158	234	41	79	240
Queue Length 95th (ft)	#332	233	41	230	214	46	#275	305	104	#158	#329
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	411	795	458	411	692	416	313	1189	610	175	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.57	0.26	0.52	0.60	0.31	0.69	0.58	0.33	0.60	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	432	116	204	398	122	206	664	192	101	432	259
Future Volume (veh/h)	272	432	116	204	398	122	206	664	192	101	432	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	283	450	121	212	415	127	215	692	200	105	450	270
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	316	885	395	246	744	332	247	1086	484	130	514	306
Arrive On Green	0.19	0.27	0.27	0.15	0.23	0.23	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	283	450	121	212	415	127	215	692	200	105	373	347
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	17.1	11.8	6.7	12.8	11.4	7.5	13.0	18.2	10.8	6.4	22.2	22.4
Cycle Q Clear(g_c), s	17.1	11.8	6.7	12.8	11.4	7.5	13.0	18.2	10.8	6.4	22.2	22.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	316	885	395	246	744	332	247	1086	484	130	426	394
V/C Ratio(X)	0.89	0.51	0.31	0.86	0.56	0.38	0.87	0.64	0.41	0.81	0.87	0.88
Avail Cap(c_a), veh/h	444	885	395	444	744	332	338	1279	571	189	491	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	31.8	29.9	42.6	35.1	33.6	42.6	29.2	26.7	46.4	36.4	36.5
Incr Delay (d2), s/veh	15.6	2.1	2.0	8.7	3.0	3.3	16.6	0.8	0.6	15.2	14.5	16.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	4.6	2.4	5.5	4.6	2.8	6.1	6.7	3.6	3.0	9.9	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	33.8	31.9	51.3	38.1	36.9	59.3	30.0	27.2	61.7	50.9	52.9
LnGrp LOS	E	C	C	D	D	D	E	C	C	E	D	D
Approach Vol, veh/h		854			754			1107			825	
Approach Delay, s/veh		40.9			41.6			35.2			53.1	
Approach LOS		D			D			D			D	

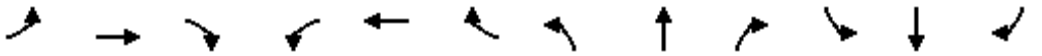
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	32.0	19.8	31.0	24.1	27.6	12.5	38.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	14.8	13.8	15.0	24.4	19.1	13.4	8.4	20.2
Green Ext Time (p_c), s	0.4	2.0	0.3	2.1	0.5	1.9	0.1	4.6

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	1	161	39	10	95	912	21	3	802	49
v/c Ratio	0.92	0.00	0.23	0.41	0.02	0.55	0.69	0.03	0.03	0.81	0.09
Control Delay	117.2	26.0	5.3	65.4	0.0	59.7	28.4	0.1	53.7	41.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.2	26.0	5.3	65.4	0.0	59.7	28.4	0.1	53.7	41.8	0.3
Queue Length 50th (ft)	76	0	0	27	0	64	248	0	2	272	0
Queue Length 95th (ft)	#207	2	48	68	0	126	375	0	13	362	0
Internal Link Dist (ft)		205					1421			2552	
Turn Bay Length (ft)	200		110	120	105	250		275	305		110
Base Capacity (vph)	115	1374	707	100	645	239	1569	751	100	1250	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.00	0.23	0.39	0.02	0.40	0.58	0.03	0.03	0.64	0.08

Intersection Summary

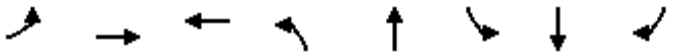
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	1	158	38	0	10	93	894	21	3	786	48
Future Volume (veh/h)	104	1	158	38	0	10	93	894	21	3	786	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	106	1	161	39	0	10	95	912	21	3	802	49
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	122	1384	617	54	1249	557	119	1183	528	7	959	428
Arrive On Green	0.07	0.42	0.42	0.03	0.00	0.38	0.07	0.36	0.36	0.00	0.29	0.29
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	106	1	161	39	0	10	95	912	21	3	802	49
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.5	0.0	7.2	2.4	0.0	0.4	5.8	24.9	0.9	0.2	23.2	2.5
Cycle Q Clear(g_c), s	6.5	0.0	7.2	2.4	0.0	0.4	5.8	24.9	0.9	0.2	23.2	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	1384	617	54	1249	557	119	1183	528	7	959	428
V/C Ratio(X)	0.87	0.00	0.26	0.72	0.00	0.02	0.80	0.77	0.04	0.46	0.84	0.11
Avail Cap(c_a), veh/h	122	1384	617	106	1249	557	252	1606	716	106	1314	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	16.8	18.9	48.3	0.0	19.4	46.1	28.5	20.9	50.1	33.4	26.1
Incr Delay (d2), s/veh	44.5	0.0	1.0	16.5	0.0	0.1	11.6	1.6	0.0	42.6	3.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	2.4	1.2	0.0	0.1	2.6	9.0	0.3	0.1	8.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.7	16.8	19.9	64.8	0.0	19.5	57.6	30.1	20.9	92.8	36.9	26.2
LnGrp LOS	F	B	B	E	A	B	E	C	C	F	D	C
Approach Vol, veh/h		268			49			1028			854	
Approach Delay, s/veh		47.9			55.6			32.5			36.5	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	47.2	11.8	34.1	12.0	43.0	4.9	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.4	9.2	7.8	25.2	8.5	2.4	2.2	26.9
Green Ext Time (p_c), s	0.0	0.5	0.1	4.4	0.0	0.0	0.0	5.8

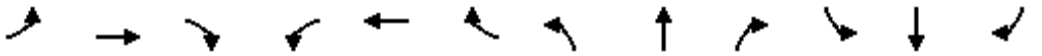
Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	184	311	11	75	1074	1	1284	40
v/c Ratio	0.63	0.71	0.04	0.65	0.52	0.01	0.76	0.05
Control Delay	38.7	25.0	25.8	66.6	9.9	40.0	17.9	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	25.0	25.8	66.6	9.9	40.0	17.9	2.1
Queue Length 50th (ft)	77	69	4	35	117	0	228	0
Queue Length 95th (ft)	148	149	17	#112	235	5	295	7
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	430	584	446	116	3023	244	3126	1401
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.53	0.02	0.65	0.36	0.00	0.41	0.03

Intersection Summary

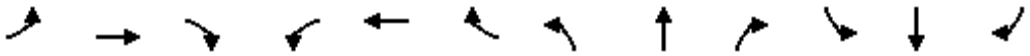
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	6	0	3	61	867	3	1	1040	32
Future Volume (veh/h)	149	0	252	6	0	3	61	867	3	1	1040	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	7	0	4	75	1070	4	1	1284	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	396	0	371	121	17	31	93	1894	7	2	1671	746
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.06	0.56	0.56	0.00	0.50	0.50
Sat Flow, veh/h	1323	0	1485	149	68	124	1668	3401	13	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	11	0	0	75	524	550	1	1284	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	340	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	14.0	0.1	0.0	0.0	3.1	14.3	14.3	0.0	22.0	1.0
Cycle Q Clear(g_c), s	10.2	0.0	14.0	14.1	0.0	0.0	3.1	14.3	14.3	0.0	22.0	1.0
Prop In Lane	1.00		1.00	0.64		0.36	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	396	0	371	169	0	0	93	927	974	2	1671	746
V/C Ratio(X)	0.46	0.00	0.84	0.07	0.00	0.00	0.80	0.56	0.57	0.42	0.77	0.05
Avail Cap(c_a), veh/h	506	0	495	263	0	0	118	1712	1800	249	3685	1643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	25.1	21.1	0.0	0.0	32.9	10.1	10.1	35.2	14.2	9.0
Incr Delay (d2), s/veh	0.9	0.0	9.2	0.2	0.0	0.0	25.8	0.5	0.5	89.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	5.6	0.1	0.0	0.0	1.8	3.7	3.9	0.1	6.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	0.0	34.3	21.3	0.0	0.0	58.6	10.6	10.6	124.5	15.0	9.0
LnGrp LOS	C	A	C	C	A	A	E	B	B	F	B	A
Approach Vol, veh/h		495			11			1149			1325	
Approach Delay, s/veh		30.6			21.3			13.8			14.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.1	8.4	39.9		22.1	4.6	43.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.0	78.0		23.5	10.5	72.5				
Max Q Clear Time (g_c+I1), s		16.0	5.1	24.0		16.1	2.0	16.3				
Green Ext Time (p_c), s		1.6	0.0	11.4		0.0	0.0	7.2				

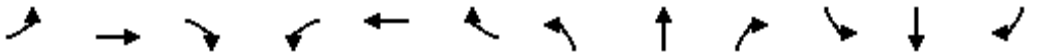
Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	104	246	248	87	165	201	171	739	65	277	946	107
v/c Ratio	0.81	0.23	0.38	0.69	0.15	0.32	0.87	0.85	0.14	0.93	0.88	0.22
Control Delay	98.6	32.1	5.7	83.8	31.1	5.7	93.2	54.6	0.6	87.3	50.6	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.6	32.1	5.7	83.8	31.1	5.7	93.2	54.6	0.6	87.3	50.6	31.9
Queue Length 50th (ft)	87	79	0	72	51	0	143	303	0	231	384	63
Queue Length 95th (ft)	#192	116	61	#149	81	56	#277	380	0	#404	472	110
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	131	1089	652	136	1086	620	202	969	522	307	1178	527
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.23	0.38	0.64	0.15	0.32	0.85	0.76	0.12	0.90	0.80	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	231	233	82	155	189	161	695	61	260	889	101
Future Volume (veh/h)	98	231	233	82	155	189	161	695	61	260	889	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	104	246	248	87	165	201	171	739	65	277	946	107
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	126	1165	520	108	1128	503	196	858	383	301	1069	477
Arrive On Green	0.08	0.35	0.35	0.06	0.34	0.34	0.12	0.26	0.26	0.18	0.32	0.32
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	104	246	248	87	165	201	171	739	65	277	946	107
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	7.5	6.3	16.0	6.3	4.2	12.7	12.3	25.9	4.2	20.0	33.0	6.5
Cycle Q Clear(g_c), s	7.5	6.3	16.0	6.3	4.2	12.7	12.3	25.9	4.2	20.0	33.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	1165	520	108	1128	503	196	858	383	301	1069	477
V/C Ratio(X)	0.82	0.21	0.48	0.81	0.15	0.40	0.87	0.86	0.17	0.92	0.89	0.22
Avail Cap(c_a), veh/h	136	1165	520	142	1128	503	211	1006	449	320	1224	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	27.9	31.0	56.5	28.1	30.9	53.1	43.3	35.3	49.3	39.4	30.4
Incr Delay (d2), s/veh	30.4	0.4	3.1	22.1	0.3	2.4	29.5	6.8	0.2	29.6	7.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.5	5.9	3.2	1.7	4.7	6.6	11.0	1.5	10.4	13.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.2	28.3	34.2	78.6	28.4	33.3	82.7	50.2	35.5	78.9	46.7	30.6
LnGrp LOS	F	C	C	E	C	C	F	D	D	E	D	C
Approach Vol, veh/h		598			453			975			1330	
Approach Delay, s/veh		40.8			40.2			54.9			52.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	47.4	18.8	43.8	13.8	46.0	26.6	36.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	15.5	45.0	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	8.3	18.0	14.3	35.0	9.5	14.7	22.0	27.9
Green Ext Time (p_c), s	0.0	2.2	0.0	4.3	0.0	1.5	0.1	3.2

Intersection Summary	
HCM 6th Ctrl Delay	49.3
HCM 6th LOS	D

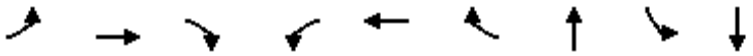
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	22	10	0	0	19	227	28	0	192	56
Future Vol, veh/h	57	0	22	10	0	0	19	227	28	0	192	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	0	23	11	0	0	20	239	29	0	202	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	23	0	0	285	154	12	288	165	0
Stage 1	-	-	-	-	-	-	132	132	-	22	22	-
Stage 2	-	-	-	-	-	-	153	22	-	266	143	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	-	-	-	1566	-	-	659	731	1057	656	720	-
Stage 1	-	-	-	-	-	-	862	779	-	986	869	-
Stage 2	-	-	-	-	-	-	840	869	-	731	771	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1566	-	-	-	726	1057	472	715	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	726	-	472	715	-
Stage 1	-	-	-	-	-	-	862	779	-	986	863	-
Stage 2	-	-	-	-	-	-	639	863	-	493	771	-

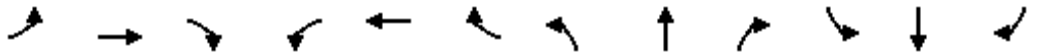
Approach	EB	WB	NB	SB
HCM Control Delay, s		7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1566	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.007	-	-	-
HCM Control Delay (s)	-	-	-	-	7.3	0	-	-
HCM Lane LOS	-	-	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	99	612	17	16	453	154	130	197	263
v/c Ratio	0.31	0.39	0.02	0.07	0.47	0.28	0.27	0.48	0.45
Control Delay	25.8	11.5	0.1	28.1	19.3	5.6	16.3	21.0	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	11.5	0.1	28.1	19.3	5.6	16.3	21.0	12.3
Queue Length 50th (ft)	27	48	0	4	60	0	27	49	35
Queue Length 95th (ft)	84	162	1	25	135	40	79	127	109
Internal Link Dist (ft)		2540			1252		326		432
Turn Bay Length (ft)	310		300	315		155		200	
Base Capacity (vph)	1000	2612	1181	1000	2612	1204	1167	1026	1263
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.23	0.01	0.02	0.17	0.13	0.11	0.19	0.21

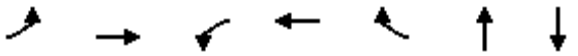
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	581	16	15	430	146	35	64	25	187	70	180
Future Volume (veh/h)	94	581	16	15	430	146	35	64	25	187	70	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	99	612	17	16	453	154	37	67	26	197	74	189
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	152	1125	502	35	893	398	184	256	77	558	122	312
Arrive On Green	0.09	0.33	0.33	0.02	0.26	0.26	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	198	945	286	1262	451	1152
Grp Volume(v), veh/h	99	612	17	16	453	154	130	0	0	197	0	263
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1428	0	0	1262	0	1604
Q Serve(g_s), s	2.0	5.1	0.3	0.3	4.0	2.9	0.1	0.0	0.0	0.0	0.0	5.1
Cycle Q Clear(g_c), s	2.0	5.1	0.3	0.3	4.0	2.9	5.2	0.0	0.0	4.4	0.0	5.1
Prop In Lane	1.00		1.00	1.00		1.00	0.28		0.20	1.00		0.72
Lane Grp Cap(c), veh/h	152	1125	502	35	893	398	517	0	0	558	0	434
V/C Ratio(X)	0.65	0.54	0.03	0.45	0.51	0.39	0.25	0.00	0.00	0.35	0.00	0.61
Avail Cap(c_a), veh/h	1318	3848	1716	1318	3848	1716	1788	0	0	1646	0	1816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.6	9.7	8.1	17.1	11.2	10.8	10.2	0.0	0.0	11.0	0.0	11.2
Incr Delay (d2), s/veh	4.7	0.4	0.0	8.7	0.4	0.6	0.3	0.0	0.0	0.4	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.0	0.0	0.2	0.9	0.6	0.6	0.0	0.0	1.0	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	10.1	8.1	25.8	11.6	11.4	10.4	0.0	0.0	11.4	0.0	12.6
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		728			623			130			460	
Approach Delay, s/veh		11.5			11.9			10.4			12.1	
Approach LOS		B			B			B			B	

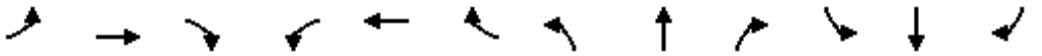
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	16.0		14.1	7.6	13.7		14.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.3	7.1		7.1	4.0	6.0		7.2				
Green Ext Time (p_c), s	0.0	3.9		2.5	0.2	3.2		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		11.7	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	40	581	78	340	77	281	551
v/c Ratio	0.23	0.69	0.43	0.36	0.16	0.40	0.87
Control Delay	54.2	42.3	58.8	34.0	8.9	14.3	40.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	42.3	58.8	34.0	8.9	14.3	40.5
Queue Length 50th (ft)	29	213	58	114	0	90	346
Queue Length 95th (ft)	56	230	94	135	26	122	394
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	184	995	195	1093	540	864	786
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.58	0.40	0.31	0.14	0.33	0.70

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	403	45	60	262	59	42	54	120	172	155	98
Future Volume (veh/h)	31	403	45	60	262	59	42	54	120	172	155	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	40	523	58	78	340	77	55	70	156	223	201	127
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	116	717	79	155	868	387	153	199	383	305	245	149
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1682	3047	337	1682	3357	1497	224	412	794	521	508	308
Grp Volume(v), veh/h	40	287	294	78	340	77	281	0	0	551	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1706	1682	1678	1497	1429	0	0	1337	0	0
Q Serve(g_s), s	2.2	15.0	15.1	4.2	7.9	3.8	0.0	0.0	0.0	23.9	0.0	0.0
Cycle Q Clear(g_c), s	2.2	15.0	15.1	4.2	7.9	3.8	10.9	0.0	0.0	34.8	0.0	0.0
Prop In Lane	1.00		0.20	1.00		1.00	0.20		0.56	0.40		0.23
Lane Grp Cap(c), veh/h	116	395	402	155	868	387	736	0	0	699	0	0
V/C Ratio(X)	0.35	0.73	0.73	0.50	0.39	0.20	0.38	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	192	522	531	204	1069	477	962	0	0	918	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.1	33.4	33.5	41.0	29.0	27.5	15.4	0.0	0.0	21.9	0.0	0.0
Incr Delay (d2), s/veh	1.8	9.1	9.2	2.5	1.0	0.9	1.2	0.0	0.0	7.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.6	6.7	1.7	3.1	1.4	3.7	0.0	0.0	11.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	42.6	42.7	43.5	30.0	28.4	16.6	0.0	0.0	29.3	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		621			495			281			551	
Approach Delay, s/veh		42.7			31.9			16.6			29.3	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	29.3		52.8	10.5	31.5		52.8				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	6.2	17.1		12.9	4.2	9.9		36.8				
Green Ext Time (p_c), s	0.1	5.2		5.1	0.0	4.9		9.0				

Intersection Summary												
HCM 6th Ctrl Delay			32.4									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	8	0	0	0
Future Vol, veh/h	0	27	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	61	18	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	18	0	-	0	79	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1612	-	-	-	929	1066
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	967	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1612	-	-	-	929	1066
Mov Cap-2 Maneuver	-	-	-	-	929	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	967	-

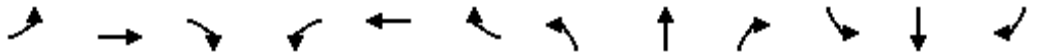
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1612	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	26	836	6	559	71	9	9	220	90
v/c Ratio	0.14	0.67	0.04	0.51	0.14	0.05	0.06	0.50	0.15
Control Delay	30.2	18.9	30.7	18.5	16.3	30.6	30.7	27.4	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	18.9	30.7	18.5	16.3	30.6	30.7	27.4	18.1
Queue Length 50th (ft)	8	117	2	71	15	3	3	59	15
Queue Length 95th (ft)	35	228	14	150	50	18	18	#195	81
Internal Link Dist (ft)		1213		1278			262		404
Turn Bay Length (ft)	300		300		200	200		300	
Base Capacity (vph)	438	2900	438	2903	1299	438	539	438	638
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.29	0.01	0.19	0.05	0.02	0.02	0.50	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	788	7	6	531	67	9	2	7	209	5	81
Future Volume (veh/h)	25	788	7	6	531	67	9	2	7	209	5	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	26	829	7	6	559	71	9	2	7	220	5	85
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	172	1221	10	13	886	395	20	35	123	278	21	364
Arrive On Green	0.10	0.36	0.36	0.01	0.26	0.26	0.01	0.10	0.10	0.17	0.26	0.26
Sat Flow, veh/h	1682	3411	29	1682	3357	1497	1682	344	1205	1682	84	1426
Grp Volume(v), veh/h	26	408	428	6	559	71	9	0	9	220	0	90
Grp Sat Flow(s),veh/h/ln	1682	1678	1761	1682	1678	1497	1682	0	1550	1682	0	1510
Q Serve(g_s), s	0.7	10.1	10.1	0.2	7.2	1.8	0.3	0.0	0.3	6.2	0.0	2.3
Cycle Q Clear(g_c), s	0.7	10.1	10.1	0.2	7.2	1.8	0.3	0.0	0.3	6.2	0.0	2.3
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.78	1.00		0.94
Lane Grp Cap(c), veh/h	172	601	631	13	886	395	20	0	158	278	0	385
V/C Ratio(X)	0.15	0.68	0.68	0.45	0.63	0.18	0.45	0.00	0.06	0.79	0.00	0.23
Avail Cap(c_a), veh/h	532	1728	1814	532	3456	1542	532	0	648	532	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	13.4	13.4	24.2	15.9	13.9	24.1	0.0	19.9	19.7	0.0	14.5
Incr Delay (d2), s/veh	0.4	1.4	1.3	21.4	0.7	0.2	15.4	0.0	0.1	5.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.8	2.9	0.1	2.1	0.6	0.2	0.0	0.1	2.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	14.7	14.6	45.6	16.7	14.2	39.5	0.0	20.0	24.7	0.0	14.8
LnGrp LOS	C	B	B	D	B	B	D	A	C	C	A	B
Approach Vol, veh/h		862			636			18			310	
Approach Delay, s/veh		14.9			16.7			29.8			21.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	22.1	5.1	17.0	9.5	17.4	12.6	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.2	12.1	2.3	4.3	2.7	9.2	8.2	2.3
Green Ext Time (p_c), s	0.0	4.9	0.0	0.4	0.0	3.7	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	128	28	19	21	2	14	86	41	6	33	7
Future Vol, veh/h	9	128	28	19	21	2	14	86	41	6	33	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	168	37	25	28	3	18	113	54	8	43	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	8.3	8.9	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	5%	45%	13%
Vol Thru, %	61%	78%	50%	72%
Vol Right, %	29%	17%	5%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	141	165	42	46
LT Vol	14	9	19	6
Through Vol	86	128	21	33
RT Vol	41	28	2	7
Lane Flow Rate	186	217	55	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.233	0.273	0.075	0.08
Departure Headway (Hd)	4.528	4.521	4.862	4.765
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	792	795	736	750
Service Time	2.561	2.552	2.901	2.805
HCM Lane V/C Ratio	0.235	0.273	0.075	0.081
HCM Control Delay	8.9	9.3	8.3	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	1.1	0.2	0.3

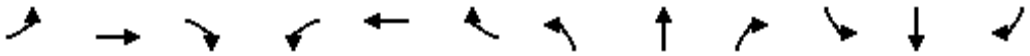
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	27	0	0	0	8	136	0	0	89	0
Future Vol, veh/h	0	0	27	0	0	0	8	136	0	0	89	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	30	0	0	0	9	151	0	0	99	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	268	268	99	283	268	151	99	0	0	-	-	0
Stage 1	99	99	-	169	169	-	-	-	-	-	-	-
Stage 2	169	169	-	114	99	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	-	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	-	-	-
Pot Cap-1 Maneuver	671	626	938	655	626	877	1451	-	-	0	-	-
Stage 1	890	800	-	817	746	-	-	-	-	0	-	-
Stage 2	817	746	-	874	800	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	668	622	938	631	622	877	1451	-	-	-	-	-
Mov Cap-2 Maneuver	668	622	-	631	622	-	-	-	-	-	-	-
Stage 1	884	800	-	811	741	-	-	-	-	-	-	-
Stage 2	811	741	-	846	800	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	0	0.4	0
HCM LOS	A	A		

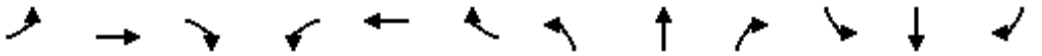
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1451	-	-	938	-	-	-
HCM Lane V/C Ratio	0.006	-	-	0.032	-	-	-
HCM Control Delay (s)	7.5	0	-	9	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	696	341	198	425	211	209	395	188	125	335	51
v/c Ratio	0.55	0.67	0.74	0.70	0.37	0.41	0.69	0.54	0.57	0.53	0.56	0.19
Control Delay	52.2	33.1	41.3	55.6	26.3	29.1	52.2	37.4	43.3	49.8	40.7	37.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	33.1	41.3	55.6	26.3	29.1	52.2	37.4	43.3	49.8	40.7	37.9
Queue Length 50th (ft)	69	188	180	112	98	95	116	110	101	70	98	27
Queue Length 95th (ft)	153	302	334	#286	177	199	#260	188	202	150	161	66
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	304	1512	676	304	1512	676	383	1120	501	383	1120	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.46	0.50	0.65	0.28	0.31	0.55	0.35	0.38	0.33	0.30	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	633	310	180	387	192	190	359	171	114	305	46
Future Volume (veh/h)	111	633	310	180	387	192	190	359	171	114	305	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	122	696	341	198	425	211	209	395	188	125	335	51
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	158	1066	476	245	1239	553	259	714	319	163	523	233
Arrive On Green	0.09	0.30	0.30	0.14	0.35	0.35	0.15	0.20	0.20	0.09	0.15	0.15
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	122	696	341	198	425	211	209	395	188	125	335	51
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	4.6	11.7	13.2	7.4	6.1	6.8	7.8	6.9	7.4	4.7	6.1	1.9
Cycle Q Clear(g_c), s	4.6	11.7	13.2	7.4	6.1	6.8	7.8	6.9	7.4	4.7	6.1	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	1066	476	245	1239	553	259	714	319	163	523	233
V/C Ratio(X)	0.77	0.65	0.72	0.81	0.34	0.38	0.81	0.55	0.59	0.77	0.64	0.22
Avail Cap(c_a), veh/h	402	1993	889	402	1993	889	506	1476	658	506	1476	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	20.6	21.2	28.5	16.3	16.5	28.1	24.4	24.6	30.2	27.3	25.5
Incr Delay (d2), s/veh	7.8	0.7	2.0	6.3	0.2	0.4	5.9	0.7	1.7	7.4	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.1	4.5	3.2	2.0	2.2	3.4	2.6	2.6	2.2	2.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	21.3	23.2	34.8	16.4	17.0	34.0	25.0	26.3	37.6	28.6	26.0
LnGrp LOS	D	C	C	C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		1159			834			792			511	
Approach Delay, s/veh		23.6			20.9			27.7			30.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	25.1	14.5	14.6	10.6	28.4	10.8	18.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	9.4	15.2	9.8	8.1	6.6	8.8	6.7	9.4
Green Ext Time (p_c), s	0.2	5.4	0.4	2.0	0.2	3.2	0.2	2.8

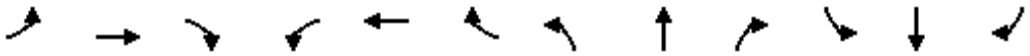
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	176.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	54	36	88	68	2	95	35	588	100	121	722	4
Future Vol, veh/h	54	36	88	68	2	95	35	588	100	121	722	4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	72	48	117	91	3	127	47	784	133	161	963	5
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

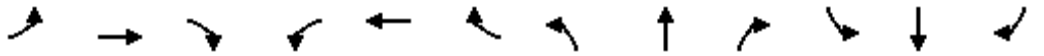
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	49	24.1	179.8	230.2
HCM LOS	E	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	66%	20%	0%	2%	0%	100%	98%
Vol Right, %	0%	0%	34%	49%	0%	98%	0%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	392	296	178	68	97	121	481	245
LT Vol	35	0	0	54	68	0	121	0	0
Through Vol	0	392	196	36	0	2	0	481	241
RT Vol	0	0	100	88	0	95	0	0	4
Lane Flow Rate	47	523	395	237	91	129	161	642	326
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.137	1.461	1.077	0.762	0.313	0.404	0.461	1.743	0.885
Departure Headway (Hd)	11.426	10.9	10.651	13.434	14.382	13.142	11.005	10.48	10.468
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	316	340	343	271	252	275	329	353	349
Service Time	9.126	8.6	8.351	11.134	12.082	10.842	8.705	8.18	8.168
HCM Lane V/C Ratio	0.149	1.538	1.152	0.875	0.361	0.469	0.489	1.819	0.934
HCM Control Delay	15.9	251.2	104.6	49	23.5	24.5	22.8	370.5	56.9
HCM Lane LOS	C	F	F	E	C	C	C	F	F
HCM 95th-tile Q	0.5	26	13.4	5.6	1.3	1.9	2.3	37.8	8.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	137	12	245	65	10	2	81	725	105	6	970	60
v/c Ratio	0.53	0.03	0.60	0.36	0.03	0.01	0.41	0.43	0.14	0.05	0.74	0.10
Control Delay	46.0	28.4	39.0	47.2	32.9	32.5	46.9	16.3	15.1	46.8	29.4	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	28.4	39.0	47.2	32.9	32.5	46.9	16.3	15.1	46.8	29.4	21.9
Queue Length 50th (ft)	75	5	132	36	5	1	45	120	28	3	246	22
Queue Length 95th (ft)	135	19	206	79	19	7	92	223	75	17	358	54
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	394	1042	886	236	876	745	281	2025	906	112	1575	705
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.01	0.28	0.28	0.01	0.00	0.29	0.36	0.12	0.05	0.62	0.09

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	10	206	55	8	2	68	609	88	5	815	50
Future Volume (veh/h)	115	10	206	55	8	2	68	609	88	5	815	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	12	245	65	10	2	81	725	105	6	970	60
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	366	310	97	280	237	109	1517	677	14	1327	592
Arrive On Green	0.10	0.20	0.20	0.06	0.15	0.15	0.06	0.43	0.43	0.01	0.38	0.38
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	137	12	245	65	10	2	81	725	105	6	970	60
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.5	0.3	8.8	2.2	0.3	0.1	2.7	8.8	2.4	0.2	14.1	1.5
Cycle Q Clear(g_c), s	4.5	0.3	8.8	2.2	0.3	0.1	2.7	8.8	2.4	0.2	14.1	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	366	310	97	280	237	109	1517	677	14	1327	592
V/C Ratio(X)	0.77	0.03	0.79	0.67	0.04	0.01	0.74	0.48	0.16	0.43	0.73	0.10
Avail Cap(c_a), veh/h	519	1369	1160	311	1151	976	370	2512	1121	148	2069	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	19.1	22.5	27.4	21.4	21.3	27.3	12.0	10.2	29.2	15.8	11.8
Incr Delay (d2), s/veh	6.7	0.0	4.5	7.7	0.1	0.0	9.5	0.2	0.1	19.7	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.1	3.3	1.1	0.1	0.0	1.3	2.8	0.7	0.2	4.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	19.2	27.1	35.1	21.4	21.3	36.8	12.2	10.3	48.9	16.6	11.9
LnGrp LOS	C	B	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		394			77			911			1036	
Approach Delay, s/veh		28.7			32.9			14.2			16.5	
Approach LOS		C			C			B			B	

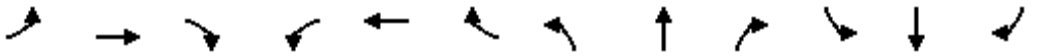
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	16.3	8.2	26.9	10.5	13.5	5.0	30.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	4.2	10.8	4.7	16.1	6.5	2.3	2.2	10.8
Green Ext Time (p_c), s	0.1	0.9	0.1	6.4	0.2	0.0	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	176	755	53	255	120	124	613	91	169	990	116
v/c Ratio	0.72	0.62	0.65	0.31	0.24	0.78	0.58	0.15	0.70	0.81	0.21
Control Delay	62.6	29.1	89.4	37.3	2.5	80.7	34.2	0.5	61.3	37.0	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	29.1	89.4	37.3	2.5	80.7	34.2	0.5	61.3	37.0	24.9
Queue Length 50th (ft)	119	203	37	77	0	87	191	0	114	327	56
Queue Length 95th (ft)	198	288	#107	125	7	#196	245	0	189	378	93
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	305	1216	81	819	501	162	1305	693	313	1608	719
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.62	0.65	0.31	0.24	0.77	0.47	0.13	0.54	0.62	0.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



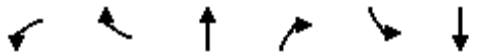
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	414	236	46	219	103	107	527	78	145	851	100
Future Volume (veh/h)	151	414	236	46	219	103	107	527	78	145	851	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	176	481	274	53	255	120	124	613	91	169	990	116
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	208	760	431	67	955	426	151	1105	493	201	1205	537
Arrive On Green	0.12	0.36	0.36	0.04	0.28	0.28	0.09	0.32	0.32	0.12	0.35	0.35
Sat Flow, veh/h	1739	2133	1209	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	176	391	364	53	255	120	124	613	91	169	990	116
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	10.4	19.7	19.9	3.2	6.1	6.4	7.4	15.4	4.5	10.0	27.4	5.6
Cycle Q Clear(g_c), s	10.4	19.7	19.9	3.2	6.1	6.4	7.4	15.4	4.5	10.0	27.4	5.6
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	618	573	67	955	426	151	1105	493	201	1205	537
V/C Ratio(X)	0.85	0.63	0.64	0.79	0.27	0.28	0.82	0.55	0.18	0.84	0.82	0.22
Avail Cap(c_a), veh/h	310	618	573	83	955	426	165	1324	591	319	1631	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	28.2	28.2	50.2	29.8	30.0	47.3	29.7	26.0	45.6	31.4	24.2
Incr Delay (d2), s/veh	12.9	4.9	5.3	32.2	0.7	1.6	25.3	0.4	0.2	10.8	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	8.3	7.8	1.9	2.5	2.5	4.2	6.2	1.6	4.8	11.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	33.0	33.5	82.4	30.5	31.6	72.6	30.1	26.2	56.4	34.0	24.4
LnGrp LOS	E	C	C	F	C	C	E	C	C	E	C	C
Approach Vol, veh/h		931			428			828			1275	
Approach Delay, s/veh		38.0			37.3			36.1			36.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	42.0	13.6	41.1	17.1	33.5	16.7	38.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.2	21.9	9.4	29.4	12.4	8.4	12.0	17.4
Green Ext Time (p_c), s	0.0	3.7	0.0	7.1	0.2	1.5	0.2	4.3

Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	36	84	885	97	1147
v/c Ratio	0.09	0.20	0.46	0.56	0.47
Control Delay	37.3	9.0	16.9	63.0	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	9.0	16.9	63.0	9.0
Queue Length 50th (ft)	22	0	201	73	190
Queue Length 95th (ft)	51	41	276	125	232
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	401	424	1931	299	2438
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.20	0.46	0.32	0.47

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	76	716	80	87	1032
Future Volume (veh/h)	32	76	716	80	87	1032
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	84	796	89	97	1147
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1882	210	122	2451
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3289	357	1767	3618
Grp Volume(v), veh/h	36	84	439	446	97	1147
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1791	1767	1763
Q Serve(g_s), s	1.9	5.2	16.4	16.4	6.5	17.6
Cycle Q Clear(g_c), s	1.9	5.2	16.4	16.4	6.5	17.6
Prop In Lane	1.00	1.00		0.20	1.00	
Lane Grp Cap(c), veh/h	405	360	1038	1054	122	2451
V/C Ratio(X)	0.09	0.23	0.42	0.42	0.79	0.47
Avail Cap(c_a), veh/h	405	360	1038	1054	302	2451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	37.7	13.5	13.5	55.1	8.3
Incr Delay (d2), s/veh	0.4	1.5	1.3	1.2	11.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.1	6.4	6.5	3.2	5.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.9	39.2	14.8	14.8	66.0	8.9
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	120		885			1244
Approach Delay, s/veh	38.5		14.8			13.4
Approach LOS	D		B			B

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				88.1		32.0	12.8	75.3
Change Period (Y+Rc), s				* 4.6		4.5	4.5	* 4.6
Max Green Setting (Gmax), s				* 84		27.5	20.5	* 58
Max Q Clear Time (g_c+I1), s				19.6		7.2	8.5	18.4
Green Ext Time (p_c), s				10.1		0.3	0.1	6.1

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	944	70	34	1033	0	11	0	37	0	0	0
Future Vol, veh/h	0	944	70	34	1033	0	11	0	37	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	3	3	3	3	2	3	2	3	2	2	2
Mvmt Flow	0	1037	77	37	1135	0	12	0	41	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1135	0	0	1114	0	0	2285	2285	1076	2305	2323	1135
Stage 1	-	-	-	-	-	-	1076	1076	-	1209	1209	-
Stage 2	-	-	-	-	-	-	1209	1209	-	1096	1114	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.13	6.52	6.23	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.527	4.018	3.327	3.518	4.018	3.318
Pot Cap-1 Maneuver	616	-	-	623	-	-	28	40	265	27	37	246
Stage 1	-	-	-	-	-	-	264	296	-	223	256	-
Stage 2	-	-	-	-	-	-	222	256	-	259	284	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	616	-	-	623	-	-	25	34	265	20	31	246
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	34	-	20	31	-
Stage 1	-	-	-	-	-	-	264	296	-	223	215	-
Stage 2	-	-	-	-	-	-	186	215	-	219	284	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	104.7	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	83	616	-	-	623	-	-	-
HCM Lane V/C Ratio	0.636	-	-	-	0.06	-	-	-
HCM Control Delay (s)	104.7	0	-	-	11.1	0	-	0
HCM Lane LOS	F	A	-	-	B	A	-	A
HCM 95th %tile Q(veh)	2.9	0	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	211	8	58	138	33	3	12	58	16	11	5
Future Vol, veh/h	16	211	8	58	138	33	3	12	58	16	11	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	18	243	9	67	159	38	3	14	67	18	13	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	197	0	0	252	0	0	606	615	248	636	600	178
Stage 1	-	-	-	-	-	-	284	284	-	312	312	-
Stage 2	-	-	-	-	-	-	322	331	-	324	288	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1382	-	-	1319	-	-	410	408	793	392	416	868
Stage 1	-	-	-	-	-	-	725	678	-	701	659	-
Stage 2	-	-	-	-	-	-	692	647	-	690	675	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1382	-	-	1319	-	-	378	382	793	332	390	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	378	382	-	332	390	-
Stage 1	-	-	-	-	-	-	716	669	-	692	625	-
Stage 2	-	-	-	-	-	-	639	614	-	611	666	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	2	11.2	15.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	378	670	1382	-	-	1319	-	-	389
HCM Lane V/C Ratio	0.009	0.12	0.013	-	-	0.051	-	-	0.095
HCM Control Delay (s)	14.6	11.1	7.6	-	-	7.9	-	-	15.2
HCM Lane LOS	B	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	103	31	41	39	1	27	0	52	0	1	1
Future Vol, veh/h	0	103	31	41	39	1	27	0	52	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	116	35	46	44	1	30	0	58	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	151	0	0	272	271	134	300	288	45
Stage 1	-	-	-	-	-	-	134	134	-	137	137	-
Stage 2	-	-	-	-	-	-	138	137	-	163	151	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1570	-	-	1436	-	-	683	637	918	654	624	1028
Stage 1	-	-	-	-	-	-	872	787	-	869	785	-
Stage 2	-	-	-	-	-	-	868	785	-	841	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1570	-	-	1436	-	-	664	616	918	597	603	1028
Mov Cap-2 Maneuver	-	-	-	-	-	-	664	616	-	597	603	-
Stage 1	-	-	-	-	-	-	872	787	-	869	759	-
Stage 2	-	-	-	-	-	-	837	759	-	787	774	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.8	10	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	812	1570	-	-	1436	-	-	760
HCM Lane V/C Ratio	0.109	-	-	-	0.032	-	-	0.003
HCM Control Delay (s)	10	0	-	-	7.6	0	-	9.8
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

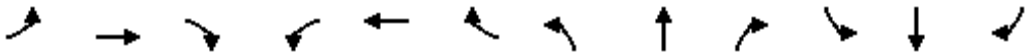
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	4	0	2	0	77	11	5	69	0
Future Vol, veh/h	0	0	0	4	0	2	0	77	11	5	69	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	71	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	6	0	2	0	83	12	5	74	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	174	179	74	173	173	89	74	0	0	95	0	0
Stage 1	84	84	-	89	89	-	-	-	-	-	-	-
Stage 2	90	95	-	84	84	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	793	718	993	794	724	975	1538	-	-	1512	-	-
Stage 1	929	829	-	923	825	-	-	-	-	-	-	-
Stage 2	922	820	-	929	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	790	716	993	792	722	975	1538	-	-	1512	-	-
Mov Cap-2 Maneuver	790	716	-	792	722	-	-	-	-	-	-	-
Stage 1	929	827	-	923	825	-	-	-	-	-	-	-
Stage 2	920	820	-	926	827	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.4	0	0.5
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	-	835	1512	-	-
HCM Lane V/C Ratio	-	-	-	-	0.009	0.004	-	-
HCM Control Delay (s)	0	-	-	0	9.4	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

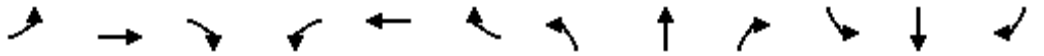


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	63	738	291	115	604	92	392	232	193	38	75	90
v/c Ratio	0.53	0.81	0.33	0.56	0.58	0.10	3.21	0.62	0.41	0.42	0.15	0.27
Control Delay	64.3	32.4	6.9	52.9	18.9	3.2	1031.7	44.6	7.9	62.5	36.7	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	32.4	6.9	52.9	18.9	3.2	1031.7	44.6	7.9	62.5	36.7	3.8
Queue Length 50th (ft)	40	394	28	71	257	0	~449	142	0	24	22	0
Queue Length 95th (ft)	#102	#744	96	132	431	25	#679	222	57	#66	42	15
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	120	908	878	280	1048	932	122	707	720	91	1281	659
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.81	0.33	0.41	0.58	0.10	3.21	0.33	0.27	0.42	0.06	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



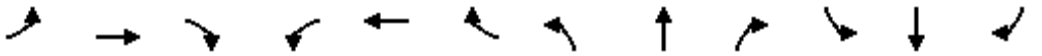
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	679	268	106	556	85	361	213	178	35	69	83
Future Volume (veh/h)	58	679	268	106	556	85	361	213	178	35	69	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	738	291	115	604	92	392	232	193	38	75	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	999	847	146	1067	904	127	298	253	60	432	193
Arrive On Green	0.05	0.53	0.53	0.08	0.57	0.57	0.07	0.16	0.16	0.03	0.12	0.12
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	63	738	291	115	604	92	392	232	193	38	75	90
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	3.3	28.6	9.9	6.0	19.3	2.5	6.7	11.2	11.0	2.0	1.8	5.0
Cycle Q Clear(g_c), s	3.3	28.6	9.9	6.0	19.3	2.5	6.7	11.2	11.0	2.0	1.8	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	999	847	146	1067	904	127	298	253	60	432	193
V/C Ratio(X)	0.78	0.74	0.34	0.79	0.57	0.10	3.09	0.78	0.76	0.64	0.17	0.47
Avail Cap(c_a), veh/h	125	999	847	290	1067	904	127	729	618	95	1321	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	16.9	12.5	42.4	12.8	9.2	43.7	38.0	37.9	44.9	37.1	38.5
Incr Delay (d2), s/veh	15.0	4.9	1.1	9.1	2.2	0.2	961.8	4.4	4.8	10.8	0.2	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	11.3	3.3	2.8	7.1	0.8	36.7	5.2	4.4	1.0	0.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	21.7	13.6	51.6	15.0	9.4	1005.5	42.4	42.7	55.7	37.3	40.3
LnGrp LOS	E	C	B	D	B	A	F	D	D	E	D	D
Approach Vol, veh/h		1092			811			817			203	
Approach Delay, s/veh		21.8			19.6			504.5			42.1	
Approach LOS		C			B			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	54.8	11.2	15.9	8.8	58.2	7.6	19.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.0	30.6	8.7	7.0	5.3	21.3	4.0	13.2
Green Ext Time (p_c), s	0.1	4.7	0.0	0.7	0.0	3.9	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	157.5
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	35	287	109	174	223	517	254	36	358
v/c Ratio	0.38	0.49	0.62	0.23	0.77	0.69	0.32	0.38	0.40
Control Delay	66.9	30.9	66.2	23.5	63.6	35.5	4.2	66.5	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	30.9	66.2	23.5	63.6	35.5	4.2	66.5	37.4
Queue Length 50th (ft)	27	155	82	86	166	342	0	28	117
Queue Length 95th (ft)	62	245	142	142	247	477	53	64	170
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	94	589	209	750	364	750	789	97	888
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.49	0.52	0.23	0.61	0.69	0.32	0.37	0.40

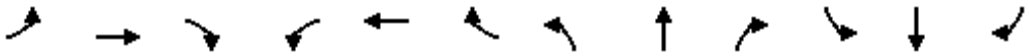
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	140	130	102	131	33	210	486	239	34	306	30
Future Volume (veh/h)	33	140	130	102	131	33	210	486	239	34	306	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	149	138	109	139	35	223	517	254	36	326	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	305	283	135	560	141	255	739	626	53	922	90
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.14	0.40	0.40	0.03	0.28	0.28
Sat Flow, veh/h	1781	894	828	1781	1442	363	1781	1870	1585	1781	3271	319
Grp Volume(v), veh/h	35	0	287	109	0	174	223	517	254	36	176	182
Grp Sat Flow(s),veh/h/ln	1781	0	1721	1781	0	1805	1781	1870	1585	1781	1777	1813
Q Serve(g_s), s	2.2	0.0	15.1	6.9	0.0	7.5	14.0	26.4	13.2	2.3	9.0	9.2
Cycle Q Clear(g_c), s	2.2	0.0	15.1	6.9	0.0	7.5	14.0	26.4	13.2	2.3	9.0	9.2
Prop In Lane	1.00		0.48	1.00		0.20	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	52	0	588	135	0	701	255	739	626	53	501	511
V/C Ratio(X)	0.67	0.00	0.49	0.81	0.00	0.25	0.88	0.70	0.41	0.68	0.35	0.36
Avail Cap(c_a), veh/h	95	0	588	210	0	701	366	739	626	98	501	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	29.7	52.0	0.0	23.7	48.0	28.9	24.9	54.9	32.7	32.8
Incr Delay (d2), s/veh	13.8	0.0	2.9	11.9	0.0	0.8	15.1	5.4	1.9	14.1	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	6.4	3.4	0.0	3.2	7.1	12.3	5.1	1.2	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	0.0	32.6	63.9	0.0	24.5	63.1	34.3	26.8	69.0	34.7	34.7
LnGrp LOS	E	A	C	E	A	C	E	C	C	E	C	C
Approach Vol, veh/h		322			283			994			394	
Approach Delay, s/veh		36.6			39.7			38.9			37.8	
Approach LOS		D			D			D			D	

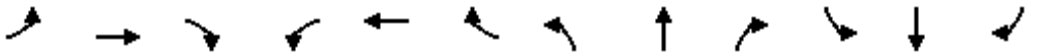
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	43.6	20.9	36.7	7.9	48.9	7.9	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	8.9	17.1	16.0	11.2	4.2	9.5	4.3	28.4
Green Ext Time (p_c), s	0.1	1.5	0.3	1.6	0.0	0.9	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	127	429	87	107	234	222	184	808	144	229	442	65
v/c Ratio	0.65	0.37	0.15	0.61	0.21	0.34	0.75	0.83	0.29	0.79	0.42	0.14
Control Delay	75.1	38.2	8.4	75.5	37.3	6.6	75.7	54.0	20.6	74.7	38.9	35.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	38.2	8.4	75.5	37.3	6.6	75.7	54.0	20.6	74.7	38.9	35.9
Queue Length 50th (ft)	108	155	0	92	81	0	157	348	45	195	161	41
Queue Length 95th (ft)	191	234	43	166	133	65	260	461	109	311	227	84
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	263	1149	572	236	1109	648	318	1203	588	371	1311	586
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.37	0.15	0.45	0.21	0.34	0.58	0.67	0.24	0.62	0.34	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	420	85	105	229	218	180	792	141	224	433	64
Future Volume (veh/h)	124	420	85	105	229	218	180	792	141	224	433	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	429	87	107	234	222	184	808	144	229	442	65
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	1261	563	133	1218	543	214	973	434	261	1065	475
Arrive On Green	0.09	0.35	0.35	0.07	0.34	0.34	0.12	0.27	0.27	0.15	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	127	429	87	107	234	222	184	808	144	229	442	65
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.4	10.6	4.5	7.1	5.5	12.8	12.1	25.6	8.7	15.1	11.9	3.6
Cycle Q Clear(g_c), s	8.4	10.6	4.5	7.1	5.5	12.8	12.1	25.6	8.7	15.1	11.9	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	155	1261	563	133	1218	543	214	973	434	261	1065	475
V/C Ratio(X)	0.82	0.34	0.15	0.80	0.19	0.41	0.86	0.83	0.33	0.88	0.41	0.14
Avail Cap(c_a), veh/h	290	1261	563	260	1218	543	350	1321	589	409	1439	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	28.3	26.4	54.5	27.7	30.1	51.7	40.9	34.7	50.1	33.5	30.6
Incr Delay (d2), s/veh	10.2	0.7	0.6	10.7	0.4	2.3	11.1	3.4	0.4	12.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.4	1.7	3.4	2.3	5.1	5.9	11.2	3.3	7.4	5.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	29.1	26.9	65.2	28.0	32.4	62.8	44.3	35.2	62.7	33.8	30.7
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		643			563			1136			736	
Approach Delay, s/veh		35.7			36.8			46.1			42.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	47.0	18.9	40.4	14.9	45.5	22.0	37.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	42.5	23.5	48.5	19.5	40.5	27.5	44.5
Max Q Clear Time (g_c+I1), s	9.1	12.6	14.1	13.9	10.4	14.8	17.1	27.6
Green Ext Time (p_c), s	0.1	2.8	0.3	3.0	0.2	2.0	0.4	5.2

Intersection Summary	
HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	124	12	1	84
Future Vol, veh/h	5	1	124	12	1	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	6	1	138	13	1	93

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	240	145	0	0	151	0
Stage 1	145	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	733	884	-	-	1388	-
Stage 1	865	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	732	884	-	-	1388	-
Mov Cap-2 Maneuver	732	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	754	1388	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	9.8	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	40	823	19	722	53
v/c Ratio	0.10	0.41	0.19	0.34	0.14
Control Delay	10.1	11.2	54.1	7.6	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	11.2	54.1	7.6	10.4
Queue Length 50th (ft)	8	116	12	97	0
Queue Length 95th (ft)	30	218	39	125	33
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	395	1990	182	2489	382
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.41	0.10	0.29	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	765	8	18	679	0	4	0	46	0	0	0
Future Volume (veh/h)	38	765	8	18	679	0	4	0	46	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	40	814	9	19	722	0	4	0	49			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	455	2017	22	32	2185	0	25	0	308			
Arrive On Green	0.62	0.62	0.62	0.02	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	656	3229	36	1598	3272	0	108	0	1325			
Grp Volume(v), veh/h	40	402	421	19	722	0	53	0	0			
Grp Sat Flow(s),veh/h/ln	656	1594	1671	1598	1594	0	1434	0	0			
Q Serve(g_s), s	2.9	13.9	13.9	1.3	10.1	0.0	3.2	0.0	0.0			
Cycle Q Clear(g_c), s	6.3	13.9	13.9	1.3	10.1	0.0	3.2	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.08		0.92			
Lane Grp Cap(c), veh/h	455	995	1044	32	2185	0	333	0	0			
V/C Ratio(X)	0.09	0.40	0.40	0.59	0.33	0.00	0.16	0.00	0.00			
Avail Cap(c_a), veh/h	455	995	1044	182	2484	0	333	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.7	10.3	10.3	53.3	7.0	0.0	33.6	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.2	1.2	16.3	0.1	0.0	1.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.3	4.5	0.6	2.6	0.0	1.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	11.6	11.5	69.6	7.1	0.0	34.6	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		863			741			53				
Approach Delay, s/veh		11.5			8.7			34.6				
Approach LOS		B			A			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.7	73.0				79.7		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.3	15.9				12.1		5.2				
Green Ext Time (p_c), s	0.0	5.4				4.9		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.0									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	288	12	501	120	66	721
v/c Ratio	0.20	0.61	0.06	0.46	0.24	0.25	0.50
Control Delay	16.3	23.8	30.8	18.3	18.8	28.6	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	23.8	30.8	18.3	18.8	28.6	13.6
Queue Length 50th (ft)	26	81	4	72	31	20	71
Queue Length 95th (ft)	74	196	22	150	86	67	204
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	1231	1019	328	2765	1237	673	3033
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.28	0.04	0.18	0.10	0.10	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	62	36	103	59	94	11	446	107	59	641	1
Future Volume (veh/h)	1	62	36	103	59	94	11	446	107	59	641	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	70	40	116	66	106	12	501	120	66	720	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	99	295	167	264	129	150	26	965	430	111	1162	2
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.02	0.29	0.29	0.07	0.34	0.34
Sat Flow, veh/h	4	1048	592	457	457	533	1668	3328	1485	1668	3410	5
Grp Volume(v), veh/h	111	0	0	288	0	0	12	501	120	66	351	370
Grp Sat Flow(s),veh/h/ln	1643	0	0	1447	0	0	1668	1664	1485	1668	1664	1751
Q Serve(g_s), s	0.0	0.0	0.0	4.5	0.0	0.0	0.3	4.7	2.3	1.4	6.6	6.6
Cycle Q Clear(g_c), s	1.9	0.0	0.0	6.5	0.0	0.0	0.3	4.7	2.3	1.4	6.6	6.6
Prop In Lane	0.01		0.36	0.40		0.37	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	560	0	0	543	0	0	26	965	430	111	567	596
V/C Ratio(X)	0.20	0.00	0.00	0.53	0.00	0.00	0.46	0.52	0.28	0.60	0.62	0.62
Avail Cap(c_a), veh/h	1792	0	0	1597	0	0	426	4335	1933	874	2614	2751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	0.0	11.9	0.0	0.0	18.2	11.1	10.2	16.9	10.3	10.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.0	12.0	0.4	0.3	5.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.7	0.0	0.0	0.2	1.0	0.5	0.5	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	0.0	0.0	12.7	0.0	0.0	30.2	11.5	10.6	21.9	11.4	11.3
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		111			288			633			787	
Approach Delay, s/veh		10.5			12.7			11.7			12.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	5.1	17.2		15.0	7.0	15.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	9.5	58.5		38.5	19.5	48.5				
Max Q Clear Time (g_c+I1), s		3.9	2.3	8.6		8.5	3.4	6.7				
Green Ext Time (p_c), s		0.6	0.0	4.1		2.0	0.1	3.5				

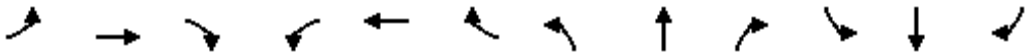
Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	270	309	268	184	399	100	88	467	76	67	844
v/c Ratio	0.99	0.31	0.43	0.77	0.43	0.21	0.54	0.49	0.15	0.47	0.92
Control Delay	98.3	31.9	6.3	67.4	34.6	7.5	59.9	34.6	4.7	59.2	51.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.3	31.9	6.3	67.4	34.6	7.5	59.9	34.6	4.7	59.2	51.1
Queue Length 50th (ft)	~200	93	0	127	124	0	62	146	0	47	290
Queue Length 95th (ft)	#395	141	65	#234	182	42	114	208	25	93	#445
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	274	997	629	274	925	484	274	960	495	274	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.31	0.43	0.67	0.43	0.21	0.32	0.49	0.15	0.24	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	287	249	171	371	93	82	434	71	62	522	263
Future Volume (veh/h)	251	287	249	171	371	93	82	434	71	62	522	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	270	309	268	184	399	100	88	467	76	67	561	283
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	285	1101	491	212	957	427	110	984	439	84	601	303
Arrive On Green	0.18	0.34	0.34	0.13	0.30	0.30	0.07	0.31	0.31	0.05	0.29	0.29
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	270	309	268	184	399	100	88	467	76	67	436	408
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	17.8	7.5	16.2	12.0	10.7	5.7	5.8	12.7	4.2	4.4	28.4	28.4
Cycle Q Clear(g_c), s	17.8	7.5	16.2	12.0	10.7	5.7	5.8	12.7	4.2	4.4	28.4	28.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	285	1101	491	212	957	427	110	984	439	84	467	437
V/C Ratio(X)	0.95	0.28	0.55	0.87	0.42	0.23	0.80	0.47	0.17	0.79	0.93	0.94
Avail Cap(c_a), veh/h	285	1101	491	285	957	427	285	984	439	285	478	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	25.7	28.6	45.8	30.3	28.5	49.4	30.3	27.3	50.4	37.2	37.2
Incr Delay (d2), s/veh	39.4	0.6	4.3	18.7	1.3	1.3	12.4	0.4	0.2	15.3	25.3	26.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	2.8	5.7	5.7	4.0	2.0	2.6	4.6	1.4	2.1	13.5	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.2	26.4	32.9	64.4	31.6	29.8	61.8	30.6	27.5	65.7	62.4	64.0
LnGrp LOS	F	C	C	E	C	C	E	C	C	E	E	E
Approach Vol, veh/h		847			683			631			911	
Approach Delay, s/veh		46.6			40.2			34.6			63.3	
Approach LOS		D			D			C			E	

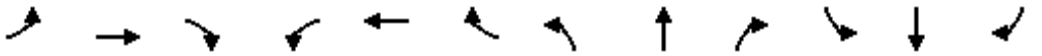
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	41.3	11.8	35.7	23.5	36.5	10.1	37.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	32.0	19.0	32.0	19.0	32.0	19.0	32.0
Max Q Clear Time (g_c+I1), s	14.0	18.2	7.8	30.4	19.8	12.7	6.4	14.7
Green Ext Time (p_c), s	0.2	2.2	0.1	0.8	0.0	2.4	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	20	66	13	204	724	16	4	943	119
v/c Ratio	0.21	0.09	0.15	0.90	0.45	0.02	0.05	0.89	0.21
Control Delay	57.5	0.3	56.9	86.7	20.2	0.1	54.5	46.1	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	0.3	56.9	86.7	20.2	0.1	54.5	46.1	4.3
Queue Length 50th (ft)	13	0	9	140	145	0	3	305	0
Queue Length 95th (ft)	41	0	31	#311	277	0	15	#447	30
Internal Link Dist (ft)					1421			2552	
Turn Bay Length (ft)	200	110	120	250		275	305		110
Base Capacity (vph)	110	719	95	227	1601	763	95	1190	617
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.09	0.14	0.90	0.45	0.02	0.04	0.79	0.19

Intersection Summary

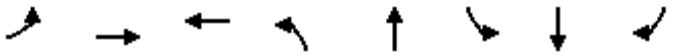
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	59	12	0	0	182	644	14	4	839	106
Future Volume (veh/h)	18	0	59	12	0	0	182	644	14	4	839	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	20	0	66	13	0	0	204	724	16	4	943	119
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	34	1155	515	24	1136	507	227	1498	668	8	1061	473
Arrive On Green	0.02	0.00	0.36	0.01	0.00	0.00	0.14	0.46	0.46	0.01	0.33	0.33
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	20	0	66	13	0	0	204	724	16	4	943	119
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.4	0.0	3.4	0.9	0.0	0.0	13.7	17.2	0.7	0.3	30.6	6.7
Cycle Q Clear(g_c), s	1.4	0.0	3.4	0.9	0.0	0.0	13.7	17.2	0.7	0.3	30.6	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	1155	515	24	1136	507	227	1498	668	8	1061	473
V/C Ratio(X)	0.59	0.00	0.13	0.54	0.00	0.00	0.90	0.48	0.02	0.47	0.89	0.25
Avail Cap(c_a), veh/h	110	1155	515	95	1136	507	227	1498	668	95	1184	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	0.0	24.1	54.3	0.0	0.0	46.9	20.7	16.3	55.0	35.4	27.4
Incr Delay (d2), s/veh	15.5	0.0	0.5	17.2	0.0	0.0	33.8	0.2	0.0	35.4	7.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	0.5	0.0	0.0	7.4	5.9	0.2	0.2	12.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.4	0.0	24.6	71.5	0.0	0.0	80.7	20.9	16.3	90.5	43.3	27.6
LnGrp LOS	E	A	C	E	A	A	F	C	B	F	D	C
Approach Vol, veh/h		86			13			944			1066	
Approach Delay, s/veh		35.0			71.5			33.8			41.8	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	44.0	20.0	40.8	6.8	43.4	5.1	55.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	2.9	5.4	15.7	32.6	3.4	0.0	2.3	19.2
Green Ext Time (p_c), s	0.0	0.2	0.0	3.7	0.0	0.0	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D

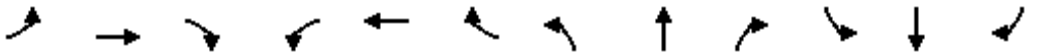


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	23	37	2	328	1005	6	903	195
v/c Ratio	0.12	0.09	0.01	1.83	0.51	0.03	0.63	0.26
Control Delay	21.6	0.4	20.0	416.6	6.8	21.6	11.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	0.4	20.0	416.6	6.8	21.6	11.8	2.4
Queue Length 50th (ft)	5	0	1	~133	50	1	86	0
Queue Length 95th (ft)	24	0	5	#312	160	11	129	20
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	615	816	658	179	3214	413	3223	1442
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.05	0.00	1.83	0.31	0.01	0.28	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

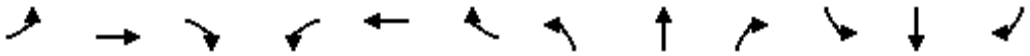
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	845	19	5	777	168
Future Volume (veh/h)	20	0	32	1	0	1	282	845	19	5	777	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	983	22	6	903	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	328	0	174	183	31	85	196	1801	40	13	1438	641
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.12	0.55	0.55	0.01	0.44	0.44
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3272	73	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	492	513	6	903	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1709	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	8.1	8.1	0.2	9.0	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	8.1	8.1	0.2	9.0	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	328	0	174	299	0	0	196	901	941	13	1438	641
V/C Ratio(X)	0.07	0.00	0.21	0.01	0.00	0.00	1.68	0.55	0.55	0.45	0.63	0.30
Avail Cap(c_a), veh/h	841	0	749	832	0	0	196	2869	2997	450	6245	2785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	16.7	16.3	0.0	0.0	18.5	6.1	6.1	20.7	9.1	7.6
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.0	325.7	0.5	0.5	22.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	19.1	1.0	1.0	0.1	1.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	17.3	16.3	0.0	0.0	344.2	6.6	6.5	43.2	9.6	7.9
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1333			1104	
Approach Delay, s/veh		17.0			16.3			89.6			9.4	
Approach LOS		B			B			F			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	9.5	22.9		9.5	4.8	27.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	5.0	80.0		21.5	11.5	73.5				
Max Q Clear Time (g_c+I1), s		3.0	7.0	11.0		2.0	2.2	10.1				
Green Ext Time (p_c), s		0.2	0.0	7.5		0.0	0.0	6.6				

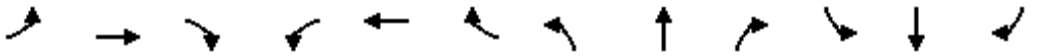
Intersection Summary												
HCM 6th Ctrl Delay			52.4									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	98	183	239	68	149	244	198	918	75	198	624	53
v/c Ratio	0.79	0.15	0.35	0.63	0.14	0.37	0.82	0.88	0.14	0.91	0.62	0.12
Control Delay	97.4	29.7	5.3	83.1	30.7	5.6	78.3	50.7	4.9	95.8	40.9	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.4	29.7	5.3	83.1	30.7	5.6	78.3	50.7	4.9	95.8	40.9	33.0
Queue Length 50th (ft)	81	56	0	56	45	0	158	368	0	164	234	32
Queue Length 95th (ft)	#185	87	59	#122	74	60	#277	454	27	#320	298	65
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	126	1194	687	115	1101	655	270	1180	584	218	1077	481
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.15	0.35	0.59	0.14	0.37	0.73	0.78	0.13	0.91	0.58	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	170	222	63	139	227	184	854	70	184	580	49
Future Volume (veh/h)	91	170	222	63	139	227	184	854	70	184	580	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	98	183	239	68	149	244	198	918	75	198	624	53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	120	1205	537	86	1136	507	224	1045	466	222	1041	464
Arrive On Green	0.07	0.36	0.36	0.05	0.34	0.34	0.13	0.31	0.31	0.13	0.31	0.31
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	98	183	239	68	149	244	198	918	75	198	624	53
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	7.0	4.5	14.9	4.9	3.8	15.8	14.2	31.8	4.5	14.2	19.3	3.1
Cycle Q Clear(g_c), s	7.0	4.5	14.9	4.9	3.8	15.8	14.2	31.8	4.5	14.2	19.3	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	1205	537	86	1136	507	224	1045	466	222	1041	464
V/C Ratio(X)	0.82	0.15	0.44	0.79	0.13	0.48	0.88	0.88	0.16	0.89	0.60	0.11
Avail Cap(c_a), veh/h	130	1205	537	119	1136	507	280	1218	543	226	1112	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.1	26.6	30.0	57.5	28.1	32.0	52.2	40.0	30.6	52.3	35.8	30.2
Incr Delay (d2), s/veh	30.1	0.3	2.7	21.5	0.2	3.3	22.8	6.8	0.2	32.1	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	1.8	5.5	2.5	1.5	5.9	7.2	13.4	1.6	7.7	7.6	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.3	26.9	32.6	79.0	28.3	35.3	75.0	46.8	30.8	84.5	36.6	30.4
LnGrp LOS	F	C	C	E	C	D	E	D	C	F	D	C
Approach Vol, veh/h		520			461			1191			875	
Approach Delay, s/veh		40.7			39.5			50.5			47.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	48.5	20.8	42.5	13.2	46.0	20.7	42.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	6.9	16.9	16.2	21.3	9.0	17.8	16.2	33.8
Green Ext Time (p_c), s	0.0	1.8	0.2	3.6	0.0	1.6	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	5	2	0	1	17	155	1	0	121	56
Future Vol, veh/h	57	0	5	2	0	1	17	155	1	0	121	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	0	5	2	0	1	18	165	1	0	129	60

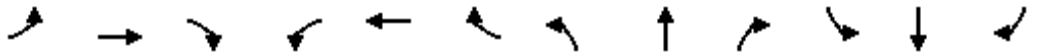
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	5	0	0	224	130	3	213	132	1
Stage 1	-	-	-	-	-	-	125	125	-	5	5	-
Stage 2	-	-	-	-	-	-	99	5	-	208	127	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1596	-	-	1590	-	-	723	753	1069	735	751	1072
Stage 1	-	-	-	-	-	-	869	785	-	1007	884	-
Stage 2	-	-	-	-	-	-	898	884	-	785	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1590	-	-	573	724	1069	588	722	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	724	-	588	722	-
Stage 1	-	-	-	-	-	-	836	755	-	969	883	-
Stage 2	-	-	-	-	-	-	724	883	-	590	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	4.8	11.9	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	707	1596	-	-	1590	-	-	805
HCM Lane V/C Ratio	0.26	0.038	-	-	0.001	-	-	0.234
HCM Control Delay (s)	11.9	7.3	0	-	7.3	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-	-	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	66	343	35	26	583	101	89	147
v/c Ratio	0.22	0.20	0.04	0.10	0.43	0.15	0.22	0.42
Control Delay	21.4	8.0	2.6	22.6	13.7	4.4	16.8	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	8.0	2.6	22.6	13.7	4.4	16.8	19.8
Queue Length 50th (ft)	16	18	0	6	66	0	19	32
Queue Length 95th (ft)	52	71	10	28	131	27	57	89
Internal Link Dist (ft)		2540			1252		326	432
Turn Bay Length (ft)	310		300	315		155		
Base Capacity (vph)	1061	2897	1304	1061	2897	1311	1433	1232
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.12	0.03	0.02	0.20	0.08	0.06	0.12

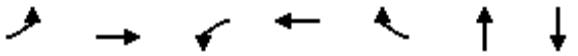
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	322	33	24	548	95	13	65	6	64	57	17
Future Volume (veh/h)	62	322	33	24	548	95	13	65	6	64	57	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	66	343	35	26	583	101	14	69	6	68	61	18
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	121	1271	567	56	1141	509	163	224	18	270	116	30
Arrive On Green	0.07	0.37	0.37	0.03	0.33	0.33	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	169	1454	117	631	750	193
Grp Volume(v), veh/h	66	343	35	26	583	101	89	0	0	147	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1741	0	0	1573	0	0
Q Serve(g_s), s	1.1	2.1	0.4	0.5	4.1	1.4	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	1.1	2.1	0.4	0.5	4.1	1.4	1.3	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.07	0.46		0.12
Lane Grp Cap(c), veh/h	121	1271	567	56	1141	509	405	0	0	416	0	0
V/C Ratio(X)	0.54	0.27	0.06	0.46	0.51	0.20	0.22	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	1532	4470	1994	1532	4470	1994	2357	0	0	2150	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	6.7	6.2	14.5	8.2	7.3	11.4	0.0	0.0	11.9	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.1	0.0	5.9	0.4	0.2	0.3	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.2	0.6	0.2	0.4	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	6.8	6.2	20.3	8.5	7.5	11.7	0.0	0.0	12.4	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		444			710			89			147	
Approach Delay, s/veh		8.4			8.8			11.7			12.4	
Approach LOS		A			A			B			B	

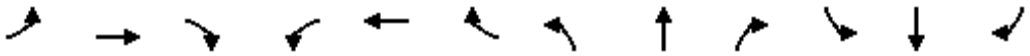
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	15.7		9.2	6.6	14.6		9.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.5	4.1		4.5	3.1	6.1		3.3				
Green Ext Time (p_c), s	0.0	2.1		0.9	0.1	3.9		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		9.2	
HCM 6th LOS		A	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	95	422	168	466	189	286	251
v/c Ratio	0.38	0.50	0.54	0.41	0.30	0.55	0.64
Control Delay	40.2	28.0	39.3	24.2	5.4	26.0	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	28.0	39.3	24.2	5.4	26.0	31.1
Queue Length 50th (ft)	41	84	72	92	0	101	93
Queue Length 95th (ft)	99	151	150	157	33	189	182
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	429	1469	656	1945	950	850	644
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.29	0.26	0.24	0.20	0.34	0.39

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	289	49	134	373	151	34	131	63	88	70	42
Future Volume (veh/h)	76	289	49	134	373	151	34	131	63	88	70	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	95	361	61	168	466	189	42	164	79	110	88	52
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	229	831	139	271	1054	470	109	269	118	217	157	75
Arrive On Green	0.13	0.28	0.28	0.16	0.31	0.31	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1711	2925	490	1711	3413	1522	154	1062	467	512	620	297
Grp Volume(v), veh/h	95	209	213	168	466	189	285	0	0	250	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1708	1711	1706	1522	1683	0	0	1429	0	0
Q Serve(g_s), s	3.0	5.9	6.0	5.4	6.5	5.8	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	3.0	5.9	6.0	5.4	6.5	5.8	8.7	0.0	0.0	9.0	0.0	0.0
Prop In Lane	1.00		0.29	1.00		1.00	0.15		0.28	0.44		0.21
Lane Grp Cap(c), veh/h	229	485	485	271	1054	470	496	0	0	449	0	0
V/C Ratio(X)	0.42	0.43	0.44	0.62	0.44	0.40	0.58	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	550	953	954	839	2483	1108	1174	0	0	1025	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.5	17.3	17.3	23.2	16.3	16.1	19.8	0.0	0.0	19.7	0.0	0.0
Incr Delay (d2), s/veh	1.2	2.2	2.3	2.3	1.1	2.0	3.8	0.0	0.0	3.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.2	2.2	2.0	2.1	1.8	3.6	0.0	0.0	3.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	19.5	19.6	25.5	17.4	18.1	23.6	0.0	0.0	23.6	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		517			823			285			250	
Approach Delay, s/veh		20.5			19.2			23.6			23.6	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	23.8		21.9	11.9	25.3		21.9				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	7.4	8.0		10.7	5.0	8.5		11.0				
Green Ext Time (p_c), s	0.4	5.5		4.3	0.2	9.8		3.8				

Intersection Summary			
HCM 6th Ctrl Delay		20.8	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	1	0	2	0
Future Vol, veh/h	0	0	1	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	0	2	0	4	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1450	-	-	-	950	1003
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1450	-	-	-	950	1003
Mov Cap-2 Maneuver	-	-	-	-	950	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1450	-	-	-	950
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	339	6	4	649	0	3	0	2	0	0	0
Future Vol, veh/h	0	339	6	4	649	0	3	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	377	7	4	721	0	3	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	721	0	0	384	0	0	750	1110	192	918	1113	361
Stage 1	-	-	-	-	-	-	381	381	-	729	729	-
Stage 2	-	-	-	-	-	-	369	729	-	189	384	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	832	-	-	1122	-	-	288	197	796	216	197	616
Stage 1	-	-	-	-	-	-	594	594	-	365	410	-
Stage 2	-	-	-	-	-	-	604	410	-	775	593	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	832	-	-	1122	-	-	287	196	796	215	196	616
Mov Cap-2 Maneuver	-	-	-	-	-	-	287	196	-	215	196	-
Stage 1	-	-	-	-	-	-	594	594	-	365	408	-
Stage 2	-	-	-	-	-	-	602	408	-	773	593	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.5	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	386	832	-	-	1122	-	-	-
HCM Lane V/C Ratio	0.014	-	-	-	0.004	-	-	-
HCM Control Delay (s)	14.5	0	-	-	8.2	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	64	30	26	99	4	17	31	7	2	58	8
Future Vol, veh/h	5	64	30	26	99	4	17	31	7	2	58	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	89	42	36	138	6	24	43	10	3	81	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	9.1	8.5	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	5%	20%	3%
Vol Thru, %	56%	65%	77%	85%
Vol Right, %	13%	30%	3%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	99	129	68
LT Vol	17	5	26	2
Through Vol	31	64	99	58
RT Vol	7	30	4	8
Lane Flow Rate	76	138	179	94
Geometry Grp	1	1	1	1
Degree of Util (X)	0.104	0.172	0.231	0.126
Departure Headway (Hd)	4.878	4.492	4.632	4.805
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	733	798	774	745
Service Time	2.917	2.524	2.663	2.843
HCM Lane V/C Ratio	0.104	0.173	0.231	0.126
HCM Control Delay	8.5	8.5	9.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.9	0.4

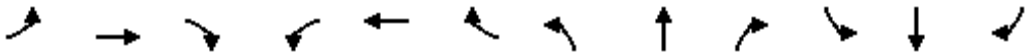
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	0	0	63	0	0	119	0
Future Vol, veh/h	1	0	0	0	0	0	0	63	0	0	119	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	0	0	0	0	0	0	97	0	0	183	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	280	280	183	280	280	97	183	0	0	97	0	0
Stage 1	183	183	-	97	97	-	-	-	-	-	-	-
Stage 2	97	97	-	183	183	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	660	618	844	660	618	943	1357	-	-	1460	-	-
Stage 1	805	737	-	895	803	-	-	-	-	-	-	-
Stage 2	895	803	-	805	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	660	618	844	660	618	943	1357	-	-	1460	-	-
Mov Cap-2 Maneuver	660	618	-	660	618	-	-	-	-	-	-	-
Stage 1	805	737	-	895	803	-	-	-	-	-	-	-
Stage 2	895	803	-	805	737	-	-	-	-	-	-	-

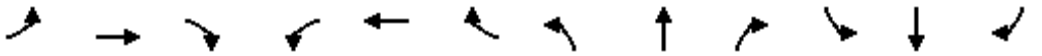
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	0	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1357	-	-	660	-	1460	-	-
HCM Lane V/C Ratio	-	-	-	0.002	-	-	-	-
HCM Control Delay (s)	0	-	-	10.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	24	316	130	126	544	48	189	103	72	20	151	29
v/c Ratio	0.13	0.45	0.41	0.44	0.48	0.10	0.53	0.07	0.12	0.11	0.46	0.10
Control Delay	34.9	28.1	31.6	33.8	21.4	20.1	32.3	17.1	18.2	35.1	32.9	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	28.1	31.6	33.8	21.4	20.1	32.3	17.1	18.2	35.1	32.9	27.9
Queue Length 50th (ft)	9	61	47	47	76	11	69	12	16	8	56	10
Queue Length 95th (ft)	36	122	117	117	186	47	159	39	60	32	133	37
Internal Link Dist (ft)		349			1207			1910			486	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	439	2185	977	439	2185	977	553	1629	728	553	851	723
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.14	0.13	0.29	0.25	0.05	0.34	0.06	0.10	0.04	0.18	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	284	117	113	490	43	170	93	65	18	136	26
Future Volume (veh/h)	22	284	117	113	490	43	170	93	65	18	136	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	24	316	130	126	544	48	189	103	72	20	151	29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	50	689	307	165	917	409	249	900	401	43	257	218
Arrive On Green	0.03	0.20	0.20	0.09	0.26	0.26	0.14	0.26	0.26	0.02	0.14	0.14
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	1826	1547
Grp Volume(v), veh/h	24	316	130	126	544	48	189	103	72	20	151	29
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1826	1547
Q Serve(g_s), s	0.6	3.4	3.1	3.0	5.8	1.0	4.5	1.0	1.5	0.5	3.3	0.7
Cycle Q Clear(g_c), s	0.6	3.4	3.1	3.0	5.8	1.0	4.5	1.0	1.5	0.5	3.3	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	50	689	307	165	917	409	249	900	401	43	257	218
V/C Ratio(X)	0.48	0.46	0.42	0.77	0.59	0.12	0.76	0.11	0.18	0.46	0.59	0.13
Avail Cap(c_a), veh/h	633	3135	1398	633	3135	1398	796	2321	1035	796	1221	1035
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	15.0	14.9	18.8	13.7	11.9	17.5	12.0	12.3	20.5	17.1	16.0
Incr Delay (d2), s/veh	6.8	0.5	0.9	7.2	0.6	0.1	4.7	0.1	0.2	7.6	2.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.0	0.9	1.2	1.6	0.3	1.7	0.3	0.4	0.3	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	15.5	15.9	26.0	14.3	12.0	22.2	12.1	12.5	28.1	19.3	16.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		470			718			364			200	
Approach Delay, s/veh		16.2			16.2			17.4			19.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	13.0	10.6	10.5	5.7	15.8	5.6	15.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.0	5.4	6.5	5.3	2.6	7.8	2.5	3.5
Green Ext Time (p_c), s	0.2	2.2	0.4	0.8	0.0	3.4	0.0	0.7

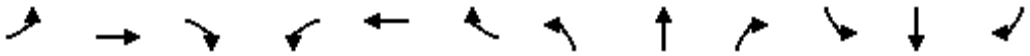
Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	24	138	22	66	62	257	73	60	336	26
Future Vol, veh/h	5	2	24	138	22	66	62	257	73	60	336	26
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	6	3	31	177	28	85	79	329	94	77	431	33
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

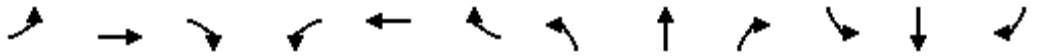
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12	15.3	15	16.9
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	16%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	6%	0%	25%	0%	100%	81%
Vol Right, %	0%	0%	46%	77%	0%	75%	0%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	171	159	31	138	88	60	224	138
LT Vol	62	0	0	5	138	0	60	0	0
Through Vol	0	171	86	2	0	22	0	224	112
RT Vol	0	0	73	24	0	66	0	0	26
Lane Flow Rate	79	220	203	40	177	113	77	287	177
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.176	0.455	0.402	0.092	0.416	0.233	0.168	0.587	0.355
Departure Headway (Hd)	7.961	7.45	7.121	8.356	8.461	7.427	7.867	7.356	7.222
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	451	483	504	428	425	483	456	491	497
Service Time	5.71	5.199	4.869	6.126	6.215	5.18	5.614	5.103	4.968
HCM Lane V/C Ratio	0.175	0.455	0.403	0.093	0.416	0.234	0.169	0.585	0.356
HCM Control Delay	12.4	16.3	14.6	12	17.1	12.4	12.2	20.1	13.9
HCM Lane LOS	B	C	B	B	C	B	B	C	B
HCM 95th-tile Q	0.6	2.3	1.9	0.3	2	0.9	0.6	3.7	1.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	30	2	49	247	33	7	217	405	53	2	459	135
v/c Ratio	0.21	0.01	0.30	0.61	0.05	0.01	0.60	0.26	0.07	0.02	0.63	0.41
Control Delay	38.3	31.5	37.0	34.6	20.7	21.2	36.6	14.0	13.6	36.0	31.2	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	31.5	37.0	34.6	20.7	21.2	36.6	14.0	13.6	36.0	31.2	30.1
Queue Length 50th (ft)	13	1	22	103	9	2	92	55	13	1	103	55
Queue Length 95th (ft)	38	7	52	180	32	12	163	101	38	7	141	98
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	147	853	725	414	1134	964	368	2094	937	117	1593	712
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.00	0.07	0.60	0.03	0.01	0.59	0.19	0.06	0.02	0.29	0.19

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	2	41	205	27	6	180	336	44	2	381	112
Future Volume (veh/h)	25	2	41	205	27	6	180	336	44	2	381	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	2	49	247	33	7	217	405	53	2	459	135
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	59	178	151	311	443	375	276	1309	584	5	769	343
Arrive On Green	0.03	0.10	0.10	0.18	0.24	0.24	0.16	0.37	0.37	0.00	0.22	0.22
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	30	2	49	247	33	7	217	405	53	2	459	135
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	0.9	0.1	1.5	7.0	0.7	0.2	6.1	4.2	1.1	0.1	6.1	3.8
Cycle Q Clear(g_c), s	0.9	0.1	1.5	7.0	0.7	0.2	6.1	4.2	1.1	0.1	6.1	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	178	151	311	443	375	276	1309	584	5	769	343
V/C Ratio(X)	0.51	0.01	0.32	0.79	0.07	0.02	0.79	0.31	0.09	0.42	0.60	0.39
Avail Cap(c_a), veh/h	214	1234	1045	601	1640	1390	533	3028	1351	170	2303	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	21.1	21.7	20.3	15.2	15.0	20.9	11.4	10.5	25.7	18.1	17.2
Incr Delay (d2), s/veh	6.5	0.0	1.2	4.6	0.1	0.0	5.0	0.1	0.1	48.8	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	3.0	0.3	0.1	2.5	1.3	0.3	0.1	2.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	21.1	23.0	24.9	15.2	15.0	25.9	11.6	10.5	74.5	18.8	17.9
LnGrp LOS	C	C	C	C	B	B	C	B	B	E	B	B
Approach Vol, veh/h		81			287			675			596	
Approach Delay, s/veh		25.9			23.6			16.1			18.8	
Approach LOS		C			C			B			B	

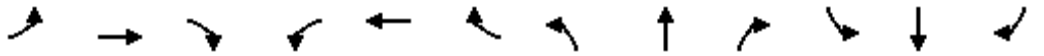
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	9.5	12.6	15.9	6.2	16.9	4.6	23.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	9.0	3.5	8.1	8.1	2.9	2.7	2.1	6.2
Green Ext Time (p_c), s	0.5	0.1	0.3	3.3	0.0	0.2	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	463	98	449	117	261	595	119	81	601	153
v/c Ratio	0.46	0.37	0.73	0.35	0.18	0.89	0.51	0.20	0.55	0.75	0.43
Control Delay	61.1	16.3	80.7	27.2	3.9	76.1	31.1	5.6	63.0	45.0	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	16.3	80.7	27.2	3.9	76.1	31.1	5.6	63.0	45.0	39.0
Queue Length 50th (ft)	40	69	68	123	0	180	181	0	54	205	91
Queue Length 95th (ft)	80	107	#147	168	22	#315	213	32	101	240	138
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	146	1250	135	1290	662	294	1429	708	168	1177	526
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.37	0.73	0.35	0.18	0.89	0.42	0.17	0.48	0.51	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	205	179	81	373	97	217	494	99	67	499	127
Future Volume (veh/h)	49	205	179	81	373	97	217	494	99	67	499	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	59	247	216	98	449	117	261	595	119	81	601	153
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	76	656	551	123	1366	609	291	1145	510	103	770	343
Arrive On Green	0.04	0.37	0.37	0.07	0.39	0.39	0.17	0.33	0.33	0.06	0.22	0.22
Sat Flow, veh/h	1739	1788	1502	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	59	239	224	98	449	117	261	595	119	81	601	153
Grp Sat Flow(s),veh/h/ln	1739	1735	1556	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.5	10.5	11.0	5.8	9.3	5.1	15.2	14.4	5.8	4.8	16.9	8.8
Cycle Q Clear(g_c), s	3.5	10.5	11.0	5.8	9.3	5.1	15.2	14.4	5.8	4.8	16.9	8.8
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	636	570	123	1366	609	291	1145	510	103	770	343
V/C Ratio(X)	0.78	0.38	0.39	0.80	0.33	0.19	0.90	0.52	0.23	0.79	0.78	0.45
Avail Cap(c_a), veh/h	154	636	570	143	1366	609	310	1503	670	178	1238	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	24.1	24.3	47.5	21.9	20.6	42.3	28.1	25.2	48.1	37.9	34.8
Incr Delay (d2), s/veh	15.9	1.7	2.0	23.7	0.6	0.7	26.0	0.4	0.2	12.2	1.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.2	4.0	3.2	3.6	1.9	8.4	5.8	2.1	2.4	7.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	25.8	26.3	71.1	22.5	21.3	68.3	28.5	25.4	60.3	39.7	35.7
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		522			664			975			835	
Approach Delay, s/veh		30.4			29.5			38.7			41.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	42.5	21.8	27.5	9.0	45.3	10.6	38.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.2	37.3	10.6	44.9
Max Q Clear Time (g_c+I1), s	7.8	13.0	17.2	18.9	5.5	11.3	6.8	16.4
Green Ext Time (p_c), s	0.0	2.4	0.1	4.1	0.0	2.9	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	86	76	1000	33	596
v/c Ratio	0.23	0.19	0.60	0.11	0.25
Control Delay	40.3	9.6	23.4	43.3	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	9.6	23.4	43.3	6.7
Queue Length 50th (ft)	55	0	281	22	77
Queue Length 95th (ft)	88	29	287	45	85
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	376	395	1680	290	2398
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	0.19	0.60	0.11	0.25

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	68	60	757	33	26	471
Future Volume (veh/h)	68	60	757	33	26	471
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	86	76	958	42	33	596
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1665	73	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3448	147	1725	3532
Grp Volume(v), veh/h	86	76	491	509	33	596
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1785	1725	1721
Q Serve(g_s), s	4.9	4.9	24.2	24.2	1.9	7.4
Cycle Q Clear(g_c), s	4.9	4.9	24.2	24.2	1.9	7.4
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	381	339	853	885	295	2423
V/C Ratio(X)	0.23	0.22	0.58	0.58	0.11	0.25
Avail Cap(c_a), veh/h	381	339	853	885	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	38.3	21.3	21.3	42.1	6.4
Incr Delay (d2), s/veh	1.4	1.5	1.0	0.9	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	9.8	10.1	0.9	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.7	39.9	22.3	22.3	42.8	6.6
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	162		1000			629
Approach Delay, s/veh	39.8		22.3			8.5
Approach LOS	D		C			A

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				89.0		31.0	25.0	64.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				84.5		26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s				9.4		6.9	3.9	26.2
Green Ext Time (p_c), s				4.8		0.4	0.0	7.9

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	10.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	397	10	84	705	0	63	0	83	0	0	0
Future Vol, veh/h	0	397	10	84	705	0	63	0	83	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	451	11	95	801	0	72	0	94	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	801	0	0	462	0	0	1448	1448	457	1495	1453	801
Stage 1	-	-	-	-	-	-	457	457	-	991	991	-
Stage 2	-	-	-	-	-	-	991	991	-	504	462	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	822	-	-	1099	-	-	109	131	604	101	130	384
Stage 1	-	-	-	-	-	-	583	568	-	296	324	-
Stage 2	-	-	-	-	-	-	296	324	-	550	565	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	1099	-	-	96	111	604	75	110	384
Mov Cap-2 Maneuver	-	-	-	-	-	-	96	111	-	75	110	-
Stage 1	-	-	-	-	-	-	583	568	-	296	273	-
Stage 2	-	-	-	-	-	-	250	273	-	464	565	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	94.2	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	184	822	-	-	1099	-	-	-
HCM Lane V/C Ratio	0.902	-	-	-	0.087	-	-	-
HCM Control Delay (s)	94.2	0	-	-	8.6	0	-	0
HCM Lane LOS	F	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	6.8	0	-	-	0.3	-	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	102	2	42	178	9	2	10	44	26	6	15
Future Vol, veh/h	10	102	2	42	178	9	2	10	44	26	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	138	3	57	241	12	3	14	59	35	8	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	253	0	0	141	0	0	543	535	140	565	530	247
Stage 1	-	-	-	-	-	-	168	168	-	361	361	-
Stage 2	-	-	-	-	-	-	375	367	-	204	169	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1318	-	-	1448	-	-	452	453	911	437	456	794
Stage 1	-	-	-	-	-	-	836	761	-	659	628	-
Stage 2	-	-	-	-	-	-	648	624	-	800	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	1448	-	-	418	430	911	384	433	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	418	430	-	384	433	-
Stage 1	-	-	-	-	-	-	827	753	-	652	604	-
Stage 2	-	-	-	-	-	-	598	600	-	727	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.4	10.4	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	418	755	1318	-	-	1448	-	-	468
HCM Lane V/C Ratio	0.006	0.097	0.01	-	-	0.039	-	-	0.136
HCM Control Delay (s)	13.7	10.3	7.8	-	-	7.6	-	-	13.9
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.3	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	33	14	54	68	1	21	1	24	0	0	0
Future Vol, veh/h	0	33	14	54	68	1	21	1	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	39	17	64	81	1	25	1	29	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	56	0	0	258	258	48	273	266	82
Stage 1	-	-	-	-	-	-	48	48	-	210	210	-
Stage 2	-	-	-	-	-	-	210	210	-	63	56	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1515	-	-	1549	-	-	695	646	1021	679	640	978
Stage 1	-	-	-	-	-	-	965	855	-	792	728	-
Stage 2	-	-	-	-	-	-	792	728	-	948	848	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1549	-	-	672	618	1021	638	612	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	672	618	-	638	612	-
Stage 1	-	-	-	-	-	-	965	855	-	792	697	-
Stage 2	-	-	-	-	-	-	758	697	-	920	848	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.3	9.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	816	1515	-	-	1549	-	-	-
HCM Lane V/C Ratio	0.067	-	-	-	0.042	-	-	-
HCM Control Delay (s)	9.7	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	-

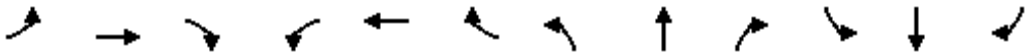
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	51	0	0	73	0
Future Vol, veh/h	0	0	0	0	0	0	0	51	0	0	73	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0	0	64	0	0	91	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	155	155	91	155	155	64	91	0	0	64	0	0
Stage 1	91	91	-	64	64	-	-	-	-	-	-	-
Stage 2	64	64	-	91	91	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	809	735	964	809	735	998	1498	-	-	1532	-	-
Stage 1	914	818	-	944	840	-	-	-	-	-	-	-
Stage 2	944	840	-	914	818	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	809	735	964	809	735	998	1498	-	-	1532	-	-
Mov Cap-2 Maneuver	809	735	-	809	735	-	-	-	-	-	-	-
Stage 1	914	818	-	944	840	-	-	-	-	-	-	-
Stage 2	944	840	-	914	818	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1498	-	-	-	-	1532	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

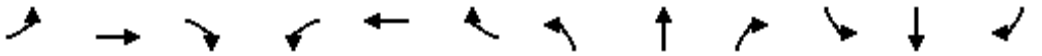


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	349	95	238	687	218	152	319	189	229	414	159
v/c Ratio	0.89	0.53	0.15	0.90	0.94	0.30	1.32	0.78	0.38	1.11	0.43	0.29
Control Delay	91.6	33.5	2.1	82.2	56.0	6.2	232.4	54.5	7.1	140.0	34.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.6	33.5	2.1	82.2	56.0	6.2	232.4	54.5	7.1	140.0	34.3	6.0
Queue Length 50th (ft)	121	194	0	167	458	11	~138	214	0	~184	127	0
Queue Length 95th (ft)	#225	274	5	#284	#636	44	#250	264	33	#311	147	31
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	192	653	643	265	729	737	115	575	619	207	1276	672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.53	0.15	0.90	0.94	0.30	1.32	0.55	0.31	1.11	0.32	0.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	276	75	188	543	172	120	252	149	181	327	126
Future Volume (veh/h)	135	276	75	188	543	172	120	252	149	181	327	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	349	95	238	687	218	152	319	189	229	414	159
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	677	574	267	749	634	119	376	319	213	903	403
Arrive On Green	0.11	0.36	0.36	0.15	0.40	0.40	0.07	0.20	0.20	0.12	0.25	0.25
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	171	349	95	238	687	218	152	319	189	229	414	159
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	10.2	15.8	4.4	14.1	37.5	10.3	7.2	17.7	11.6	12.9	10.6	9.0
Cycle Q Clear(g_c), s	10.2	15.8	4.4	14.1	37.5	10.3	7.2	17.7	11.6	12.9	10.6	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	677	574	267	749	634	119	376	319	213	903	403
V/C Ratio(X)	0.86	0.52	0.17	0.89	0.92	0.34	1.28	0.85	0.59	1.07	0.46	0.39
Avail Cap(c_a), veh/h	199	677	574	273	749	634	119	591	501	213	1310	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	26.9	23.3	44.9	30.6	22.5	50.2	41.4	39.0	47.4	33.9	33.3
Incr Delay (d2), s/veh	29.8	2.8	0.6	28.2	18.0	1.5	174.1	6.7	1.8	82.3	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	7.0	1.7	8.0	18.9	3.9	8.9	8.5	4.5	10.4	4.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	29.7	23.9	73.1	48.6	23.9	224.3	48.1	40.7	129.7	34.3	33.9
LnGrp LOS	E	C	C	E	D	C	F	D	D	F	C	C
Approach Vol, veh/h		615			1143			660			802	
Approach Delay, s/veh		41.9			49.0			86.6			61.4	
Approach LOS		D			D			F			E	

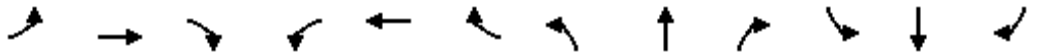
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	43.5	11.7	31.9	16.5	47.6	17.4	26.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	16.1	17.8	9.2	12.6	12.2	39.5	14.9	19.7
Green Ext Time (p_c), s	0.0	2.0	0.0	3.1	0.0	1.6	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	58.5
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	74	427	284	252	157	420	135	51	736
v/c Ratio	0.54	0.73	0.87	0.32	0.79	0.70	0.22	0.59	0.88
Control Delay	67.6	36.6	72.5	22.8	77.5	43.4	6.0	83.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	36.6	72.5	22.8	77.5	43.4	6.0	83.5	55.5
Queue Length 50th (ft)	56	233	213	122	119	292	0	39	288
Queue Length 95th (ft)	102	332	#324	178	#205	388	40	#92	#363
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	155	583	356	792	214	601	603	86	841
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.73	0.80	0.32	0.73	0.70	0.22	0.59	0.88

Intersection Summary

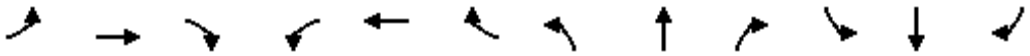
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	111	256	244	165	52	135	361	116	44	561	72
Future Volume (veh/h)	64	111	256	244	165	52	135	361	116	44	561	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	129	298	284	192	60	157	420	135	51	652	84
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	158	364	314	597	187	185	592	502	66	790	102
Arrive On Green	0.05	0.31	0.31	0.18	0.44	0.44	0.10	0.32	0.32	0.04	0.25	0.25
Sat Flow, veh/h	1781	502	1160	1781	1366	427	1781	1870	1585	1781	3166	407
Grp Volume(v), veh/h	74	0	427	284	0	252	157	420	135	51	365	371
Grp Sat Flow(s),veh/h/ln	1781	0	1662	1781	0	1793	1781	1870	1585	1781	1777	1797
Q Serve(g_s), s	4.7	0.0	27.3	18.0	0.0	10.6	10.0	22.8	7.3	3.3	22.4	22.5
Cycle Q Clear(g_c), s	4.7	0.0	27.3	18.0	0.0	10.6	10.0	22.8	7.3	3.3	22.4	22.5
Prop In Lane	1.00		0.70	1.00		0.24	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	95	0	522	314	0	784	185	592	502	66	444	449
V/C Ratio(X)	0.78	0.00	0.82	0.91	0.00	0.32	0.85	0.71	0.27	0.78	0.82	0.83
Avail Cap(c_a), veh/h	159	0	522	365	0	784	220	592	502	88	444	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	0.0	36.5	46.5	0.0	21.2	50.7	34.7	29.4	55.0	40.8	40.9
Incr Delay (d2), s/veh	12.9	0.0	13.3	23.2	0.0	1.1	22.5	7.0	1.3	25.9	15.8	15.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	12.5	9.7	0.0	4.5	5.5	11.1	2.9	1.9	11.4	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	0.0	49.8	69.7	0.0	22.3	73.3	41.7	30.7	80.9	56.7	56.7
LnGrp LOS	E	A	D	E	A	C	E	D	C	F	E	E
Approach Vol, veh/h		501			536			712			787	
Approach Delay, s/veh		52.3			47.5			46.6			58.3	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	40.7	16.5	33.3	10.6	54.9	8.7	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	20.0	29.3	12.0	24.5	6.7	12.6	5.3	24.8
Green Ext Time (p_c), s	0.3	1.4	0.1	1.4	0.0	1.4	0.0	2.2

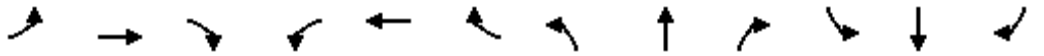
Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	56	279	50	188	320	152	255	549	183	350	851	110
v/c Ratio	0.50	0.28	0.09	0.78	0.24	0.22	0.83	0.69	0.39	0.88	0.86	0.25
Control Delay	82.5	42.5	0.3	81.2	33.5	5.9	78.6	54.6	15.2	75.2	58.0	41.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.5	42.5	0.3	81.2	33.5	5.9	78.6	54.6	15.2	75.2	58.0	41.4
Queue Length 50th (ft)	52	112	0	175	116	0	235	252	31	320	401	81
Queue Length 95th (ft)	99	154	0	253	155	44	325	305	90	#426	464	131
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	128	988	544	292	1315	683	370	935	523	474	1143	511
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.28	0.09	0.64	0.24	0.22	0.69	0.59	0.35	0.74	0.74	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	240	43	162	275	131	219	472	157	301	732	95
Future Volume (veh/h)	48	240	43	162	275	131	219	472	157	301	732	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	279	50	188	320	152	255	549	183	350	851	110
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	1074	479	216	1360	607	284	797	356	380	990	441
Arrive On Green	0.04	0.30	0.30	0.12	0.38	0.38	0.16	0.22	0.22	0.21	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	56	279	50	188	320	152	255	549	183	350	851	110
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.0	7.7	2.9	13.4	7.9	8.5	18.2	18.4	13.1	24.9	29.4	7.0
Cycle Q Clear(g_c), s	4.0	7.7	2.9	13.4	7.9	8.5	18.2	18.4	13.1	24.9	29.4	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	72	1074	479	216	1360	607	284	797	356	380	990	441
V/C Ratio(X)	0.78	0.26	0.10	0.87	0.24	0.25	0.90	0.69	0.51	0.92	0.86	0.25
Avail Cap(c_a), veh/h	136	1074	479	309	1360	607	392	987	440	502	1207	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	34.2	32.6	56.0	27.1	27.3	53.4	46.1	44.1	49.9	44.4	36.2
Incr Delay (d2), s/veh	16.1	0.6	0.4	17.0	0.4	1.0	18.2	1.5	1.2	18.9	5.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.3	1.2	6.8	3.3	3.3	9.4	8.1	5.2	12.8	13.3	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.6	34.8	33.0	72.9	27.5	28.3	71.6	47.6	45.2	68.8	49.9	36.5
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		385			660			987			1311	
Approach Delay, s/veh		40.8			40.6			53.4			53.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	43.7	25.1	40.6	9.8	54.1	32.2	33.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	37.0	28.5	44.0	9.9	49.6	36.5	36.0
Max Q Clear Time (g_c+I1), s	15.4	9.7	20.2	31.4	6.0	10.5	26.9	20.4
Green Ext Time (p_c), s	0.3	1.7	0.4	4.6	0.0	2.3	0.7	3.5

Intersection Summary	
HCM 6th Ctrl Delay	49.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	62	2	0	114
Future Vol, veh/h	5	1	62	2	0	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	8	2	95	3	0	175

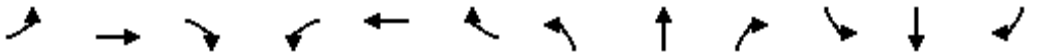
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	272	97	0	0	98	0
Stage 1	97	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	705	943	-	-	1458	-
Stage 1	912	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	705	943	-	-	1458	-
Mov Cap-2 Maneuver	705	-	-	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	736	1458	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Control Delay (s)	-	-	10	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	42	848	63	803	50
v/c Ratio	0.12	0.44	0.44	0.35	0.14
Control Delay	12.1	13.5	57.3	6.6	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	13.5	57.3	6.6	10.1
Queue Length 50th (ft)	12	166	43	99	0
Queue Length 95th (ft)	33	233	87	127	30
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	353	1927	291	2647	357
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.12	0.44	0.22	0.30	0.14

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	777	3	58	739	0	11	0	35	0	0	0
Future Volume (veh/h)	39	777	3	58	739	0	11	0	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	42	845	3	63	803	0	12	0	38			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	446	2042	7	80	2296	0	77	0	243			
Arrive On Green	0.61	0.61	0.61	0.05	0.70	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	624	3344	12	1640	3358	0	360	0	1139			
Grp Volume(v), veh/h	42	413	435	63	803	0	50	0	0			
Grp Sat Flow(s),veh/h/ln	624	1636	1720	1640	1636	0	1499	0	0			
Q Serve(g_s), s	3.0	13.9	13.9	4.0	10.2	0.0	2.9	0.0	0.0			
Cycle Q Clear(g_c), s	3.6	13.9	13.9	4.0	10.2	0.0	2.9	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.24		0.76			
Lane Grp Cap(c), veh/h	446	999	1050	80	2296	0	319	0	0			
V/C Ratio(X)	0.09	0.41	0.41	0.79	0.35	0.00	0.16	0.00	0.00			
Avail Cap(c_a), veh/h	446	999	1050	303	2741	0	319	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	8.8	10.7	10.7	49.7	6.2	0.0	33.8	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.3	1.2	15.7	0.1	0.0	1.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.5	4.7	1.9	2.5	0.0	1.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	12.0	11.9	65.4	6.3	0.0	34.9	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		890			866			50				
Approach Delay, s/veh		11.8			10.6			34.9				
Approach LOS		B			B			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.6	69.0				78.6		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	6.0	15.9				12.2		4.9				
Green Ext Time (p_c), s	0.1	5.6				5.6		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.9									
HCM 6th LOS			B									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	89	211	49	831	114	75	561
v/c Ratio	0.19	0.56	0.21	0.62	0.19	0.29	0.37
Control Delay	21.4	28.4	32.0	18.4	15.4	31.6	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	28.4	32.0	18.4	15.4	31.6	13.5
Queue Length 50th (ft)	26	68	17	126	27	25	74
Queue Length 95th (ft)	70	157	56	233	72	75	142
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	870	709	532	3125	1398	596	3160
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.30	0.09	0.27	0.08	0.13	0.18

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	61	17	86	60	40	43	731	100	66	494	0
Future Volume (veh/h)	1	61	17	86	60	40	43	731	100	66	494	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	1	69	19	98	68	45	49	831	114	75	561	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	91	276	75	247	125	66	90	1359	606	121	1421	0
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.05	0.40	0.40	0.07	0.41	0.00
Sat Flow, veh/h	6	1364	372	581	618	325	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	89	0	0	211	0	0	49	831	114	75	561	0
Grp Sat Flow(s),veh/h/ln	1742	0	0	1524	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	3.3	0.0	0.0	1.1	7.8	2.0	1.7	4.6	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	5.1	0.0	0.0	1.1	7.8	2.0	1.7	4.6	0.0
Prop In Lane	0.01		0.21	0.46		0.21	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	442	0	0	438	0	0	90	1359	606	121	1421	0
V/C Ratio(X)	0.20	0.00	0.00	0.48	0.00	0.00	0.54	0.61	0.19	0.62	0.39	0.00
Avail Cap(c_a), veh/h	1223	0	0	1097	0	0	701	5210	2324	786	5380	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	0.0	14.8	0.0	0.0	18.8	9.8	8.0	18.4	8.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.0	5.0	0.4	0.1	5.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.6	0.0	0.0	0.5	1.6	0.4	0.7	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	0.0	0.0	15.7	0.0	0.0	23.8	10.2	8.2	23.4	8.5	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	A	C	A	A
Approach Vol, veh/h		89			211			994			636	
Approach Delay, s/veh		13.8			15.7			10.7			10.3	
Approach LOS		B			B			B			B	

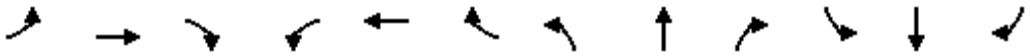
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.7	6.6	21.3		12.7	7.4	20.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	16.5	63.5		26.5	18.5	61.5				
Max Q Clear Time (g_c+I1), s		3.7	3.1	6.6		7.1	3.7	9.8				
Green Ext Time (p_c), s		0.4	0.1	3.5		1.2	0.1	6.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	288	435	123	118	352	128	216	702	172	106	729
v/c Ratio	0.84	0.44	0.23	0.60	0.51	0.31	0.80	0.68	0.33	0.68	0.88
Control Delay	64.1	34.9	5.8	60.3	43.9	8.2	68.3	37.3	14.2	72.9	48.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	34.9	5.8	60.3	43.9	8.2	68.3	37.3	14.2	72.9	48.2
Queue Length 50th (ft)	210	142	0	88	130	0	160	240	36	80	246
Queue Length 95th (ft)	#340	205	39	145	182	47	#276	311	93	#161	#347
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	409	980	533	409	687	414	311	1181	594	173	928
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.44	0.23	0.29	0.51	0.31	0.69	0.59	0.29	0.61	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	418	118	113	338	123	207	674	165	102	438	262
Future Volume (veh/h)	276	418	118	113	338	123	207	674	165	102	438	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	288	435	123	118	352	128	216	702	172	106	456	273
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	321	1084	483	146	736	328	247	1090	486	131	517	308
Arrive On Green	0.19	0.33	0.33	0.09	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1990	1184
Grp Volume(v), veh/h	288	435	123	118	352	128	216	702	172	106	378	351
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	17.6	10.6	6.3	7.3	9.6	7.7	13.2	18.7	9.2	6.5	22.7	23.0
Cycle Q Clear(g_c), s	17.6	10.6	6.3	7.3	9.6	7.7	13.2	18.7	9.2	6.5	22.7	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	321	1084	483	146	736	328	247	1090	486	131	429	396
V/C Ratio(X)	0.90	0.40	0.25	0.81	0.48	0.39	0.87	0.64	0.35	0.81	0.88	0.89
Avail Cap(c_a), veh/h	439	1084	483	439	736	328	334	1265	564	187	486	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	26.9	25.5	46.3	35.0	34.2	43.1	29.5	26.3	46.9	36.8	36.9
Incr Delay (d2), s/veh	16.6	1.1	1.3	9.9	2.2	3.5	17.3	0.9	0.4	16.0	15.6	17.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	4.0	2.2	3.2	3.8	2.9	6.3	6.9	0.1	3.1	10.3	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	28.0	26.8	56.2	37.2	37.7	60.4	30.4	26.7	63.0	52.4	54.4
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		846			598			1090			835	
Approach Delay, s/veh		37.8			41.1			35.8			54.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	38.5	20.0	31.4	24.6	27.6	12.7	38.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	9.3	12.6	15.2	25.0	19.6	11.6	8.5	20.7
Green Ext Time (p_c), s	0.2	2.1	0.3	1.9	0.5	1.8	0.1	4.6

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	1	162	39	10	96	896	21	3	718	49
v/c Ratio	0.90	0.00	0.23	0.40	0.02	0.55	0.70	0.03	0.03	0.77	0.09
Control Delay	110.9	25.0	5.2	63.5	0.0	58.2	29.0	0.1	52.7	40.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.9	25.0	5.2	63.5	0.0	58.2	29.0	0.1	52.7	40.1	0.4
Queue Length 50th (ft)	72	0	0	26	0	62	242	0	2	235	0
Queue Length 95th (ft)	#207	2	48	68	0	127	366	0	13	316	0
Internal Link Dist (ft)		205					1421			2552	
Turn Bay Length (ft)	200		110	120	105	250		275	305		110
Base Capacity (vph)	118	1405	720	102	657	245	1580	755	102	1279	654
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.00	0.23	0.38	0.02	0.39	0.57	0.03	0.03	0.56	0.07

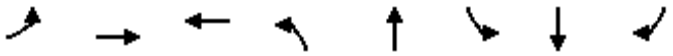
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	1	159	38	0	10	94	878	21	3	704	48
Future Volume (veh/h)	104	1	159	38	0	10	94	878	21	3	704	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	106	1	162	39	0	10	96	896	21	3	718	49
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	126	1437	641	55	1294	577	120	1108	494	7	881	393
Arrive On Green	0.08	0.44	0.44	0.03	0.00	0.40	0.07	0.34	0.34	0.00	0.27	0.27
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	106	1	162	39	0	10	96	896	21	3	718	49
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.2	0.0	6.8	2.3	0.0	0.4	5.6	24.3	0.9	0.2	20.0	2.5
Cycle Q Clear(g_c), s	6.2	0.0	6.8	2.3	0.0	0.4	5.6	24.3	0.9	0.2	20.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	1437	641	55	1294	577	120	1108	494	7	881	393
V/C Ratio(X)	0.84	0.00	0.25	0.71	0.00	0.02	0.80	0.81	0.04	0.46	0.82	0.12
Avail Cap(c_a), veh/h	126	1437	641	110	1294	577	261	1664	742	110	1361	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	15.3	17.2	46.6	0.0	17.9	44.4	29.3	21.6	48.4	33.3	26.9
Incr Delay (d2), s/veh	36.8	0.0	0.9	15.5	0.0	0.1	11.4	1.9	0.0	42.5	2.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	2.2	1.2	0.0	0.1	2.5	8.8	0.3	0.1	7.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	15.3	18.2	62.1	0.0	18.0	55.8	31.2	21.6	90.9	35.6	27.0
LnGrp LOS	F	B	B	E	A	B	E	C	C	F	D	C
Approach Vol, veh/h		269			49			1013			770	
Approach Delay, s/veh		43.0			53.1			33.3			35.2	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	47.2	11.6	30.7	12.0	43.0	4.9	37.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.3	8.8	7.6	22.0	8.2	2.4	2.2	26.3
Green Ext Time (p_c), s	0.0	0.5	0.1	4.2	0.0	0.0	0.0	5.8

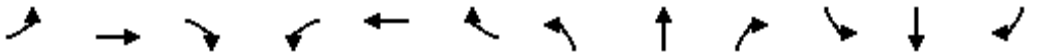
Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	184	311	11	75	1055	1	1186	40
v/c Ratio	0.61	0.67	0.04	0.60	0.53	0.01	0.74	0.05
Control Delay	35.0	20.6	23.3	58.9	10.3	36.0	17.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	20.6	23.3	58.9	10.3	36.0	17.6	2.3
Queue Length 50th (ft)	70	55	4	32	110	0	196	0
Queue Length 95th (ft)	136	128	16	#103	232	5	266	8
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	461	625	477	124	3118	261	3203	1434
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.50	0.02	0.60	0.34	0.00	0.37	0.03

Intersection Summary

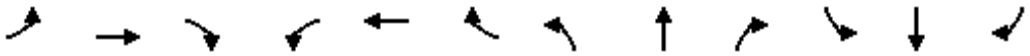
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	6	0	3	61	851	3	1	961	32
Future Volume (veh/h)	149	0	252	6	0	3	61	851	3	1	961	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	7	0	4	75	1051	4	1	1186	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	416	0	380	134	19	35	96	1811	7	3	1586	708
Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.06	0.53	0.53	0.00	0.48	0.48
Sat Flow, veh/h	1323	0	1485	167	73	137	1668	3401	13	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	11	0	0	75	514	541	1	1186	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	376	0	0	1668	1664	1749	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	12.7	0.1	0.0	0.0	2.9	13.5	13.5	0.0	18.6	0.9
Cycle Q Clear(g_c), s	9.2	0.0	12.7	12.8	0.0	0.0	2.9	13.5	13.5	0.0	18.6	0.9
Prop In Lane	1.00		1.00	0.64		0.36	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	416	0	380	188	0	0	96	886	932	3	1586	708
V/C Ratio(X)	0.44	0.00	0.82	0.06	0.00	0.00	0.78	0.58	0.58	0.39	0.75	0.06
Avail Cap(c_a), veh/h	560	0	542	312	0	0	130	1875	1971	272	4035	1800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	22.5	19.0	0.0	0.0	29.9	10.2	10.2	32.1	13.7	9.1
Incr Delay (d2), s/veh	0.7	0.0	6.5	0.1	0.0	0.0	19.3	0.6	0.6	74.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	4.8	0.1	0.0	0.0	1.5	3.4	3.5	0.1	5.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	0.0	29.0	19.1	0.0	0.0	49.2	10.8	10.7	106.3	14.4	9.1
LnGrp LOS	C	A	C	B	A	A	D	B	B	F	B	A
Approach Vol, veh/h		495			11			1130			1227	
Approach Delay, s/veh		26.4			19.1			13.3			14.3	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.0	8.2	35.2		21.0	4.6	38.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.0	78.0		23.5	10.5	72.5				
Max Q Clear Time (g_c+I1), s		14.7	4.9	20.6		14.8	2.0	15.5				
Green Ext Time (p_c), s		1.8	0.0	10.0		0.0	0.0	7.0				

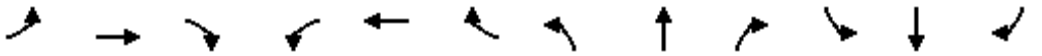
Intersection Summary												
HCM 6th Ctrl Delay			16.0									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	104	250	252	88	168	201	173	723	67	273	870	102
v/c Ratio	0.81	0.23	0.38	0.69	0.15	0.32	0.87	0.85	0.14	0.91	0.83	0.22
Control Delay	97.4	31.8	5.6	83.5	30.8	5.7	92.4	54.4	0.6	84.7	46.7	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.4	31.8	5.6	83.5	30.8	5.7	92.4	54.4	0.6	84.7	46.7	31.9
Queue Length 50th (ft)	86	79	0	72	51	0	142	294	0	223	342	60
Queue Length 95th (ft)	#192	117	61	#151	82	56	#280	370	0	#395	423	106
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	132	1098	659	137	1096	624	204	978	525	310	1189	532
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.23	0.38	0.64	0.15	0.32	0.85	0.74	0.13	0.88	0.73	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	235	237	83	158	189	163	680	63	257	818	96
Future Volume (veh/h)	98	235	237	83	158	189	163	680	63	257	818	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	104	250	252	88	168	201	173	723	67	273	870	102
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	126	1182	527	109	1147	511	198	837	373	298	1037	463
Arrive On Green	0.08	0.36	0.36	0.07	0.34	0.34	0.12	0.25	0.25	0.18	0.31	0.31
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	104	250	252	88	168	201	173	723	67	273	870	102
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	7.4	6.3	15.9	6.3	4.2	12.4	12.3	25.0	4.3	19.4	29.3	6.1
Cycle Q Clear(g_c), s	7.4	6.3	15.9	6.3	4.2	12.4	12.3	25.0	4.3	19.4	29.3	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	1182	527	109	1147	511	198	837	373	298	1037	463
V/C Ratio(X)	0.82	0.21	0.48	0.81	0.15	0.39	0.87	0.86	0.18	0.92	0.84	0.22
Avail Cap(c_a), veh/h	139	1182	527	144	1147	511	215	1022	456	326	1243	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	27.1	30.2	55.5	27.2	29.9	52.2	43.1	35.3	48.6	38.6	30.6
Incr Delay (d2), s/veh	29.5	0.4	3.1	21.7	0.3	2.3	29.0	6.6	0.2	28.1	4.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	2.5	5.8	3.2	1.6	4.5	6.6	10.6	1.5	10.0	11.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	27.5	33.3	77.2	27.5	32.2	81.2	49.7	35.6	76.7	43.1	30.9
LnGrp LOS	F	C	C	E	C	C	F	D	D	E	D	C
Approach Vol, veh/h		606			457			963			1245	
Approach Delay, s/veh		39.7			39.1			54.4			49.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	47.3	18.8	42.0	13.6	46.0	26.0	34.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	15.5	45.0	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	8.3	17.9	14.3	31.3	9.4	14.4	21.4	27.0
Green Ext Time (p_c), s	0.0	2.2	0.1	4.7	0.0	1.6	0.2	3.3

Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	19	2	0	0	8	179	1	0	179	56
Future Vol, veh/h	57	0	19	2	0	0	8	179	1	0	179	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	0	20	2	0	0	8	188	1	0	188	59

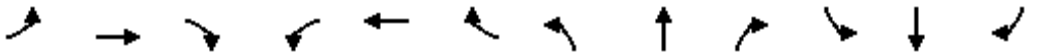
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	20	0	0	258	134	10	229	144	0
Stage 1	-	-	-	-	-	-	130	130	-	4	4	-
Stage 2	-	-	-	-	-	-	128	4	-	225	140	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	-	-	-	1570	-	-	687	749	1060	718	740	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	885	-
Stage 2	-	-	-	-	-	-	866	885	-	769	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1570	-	-	-	748	1060	577	739	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	748	-	577	739	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	884	-
Stage 2	-	-	-	-	-	-	681	884	-	583	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1570	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	-	-	-	7.3	0	-	-
HCM Lane LOS	-	-	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	74	595	17	11	377	131	127	291
v/c Ratio	0.24	0.43	0.03	0.05	0.38	0.24	0.24	0.58
Control Delay	24.2	12.5	0.1	26.9	17.7	5.8	14.0	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	12.5	0.1	26.9	17.7	5.8	14.0	19.1
Queue Length 50th (ft)	19	48	0	3	48	0	24	63
Queue Length 95th (ft)	66	157	1	19	111	37	72	166
Internal Link Dist (ft)		2540			1252		326	432
Turn Bay Length (ft)	310		300	315		155		
Base Capacity (vph)	1087	2746	1239	1087	2746	1254	1219	1136
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.22	0.01	0.01	0.14	0.10	0.10	0.26

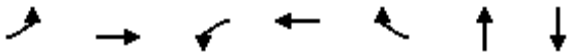
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	565	16	10	358	124	35	62	24	112	65	100
Future Volume (veh/h)	70	565	16	10	358	124	35	62	24	112	65	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	74	595	17	11	377	131	37	65	25	118	68	105
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	127	1072	478	25	868	387	213	296	91	283	135	152
Arrive On Green	0.07	0.31	0.31	0.01	0.25	0.25	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	275	1061	327	483	482	545
Grp Volume(v), veh/h	74	595	17	11	377	131	127	0	0	291	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1663	0	0	1510	0	0
Q Serve(g_s), s	1.4	4.9	0.3	0.2	3.1	2.4	0.0	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear(g_c), s	1.4	4.9	0.3	0.2	3.1	2.4	1.9	0.0	0.0	5.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.29		0.20	0.41		0.36
Lane Grp Cap(c), veh/h	127	1072	478	25	868	387	600	0	0	570	0	0
V/C Ratio(X)	0.58	0.56	0.04	0.44	0.43	0.34	0.21	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	1362	3975	1773	1362	3975	1773	1951	0	0	1870	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	9.8	8.2	16.7	10.7	10.5	9.6	0.0	0.0	10.9	0.0	0.0
Incr Delay (d2), s/veh	4.1	0.5	0.0	11.7	0.3	0.5	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.0	0.0	0.1	0.7	0.5	0.6	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	10.3	8.2	28.4	11.1	11.0	9.8	0.0	0.0	11.6	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	A	A	A	B	A	A
Approach Vol, veh/h		686			519			127			291	
Approach Delay, s/veh		11.2			11.4			9.8			11.6	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	15.2		14.0	7.0	13.1		14.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.2	6.9		7.7	3.4	5.1		3.9				
Green Ext Time (p_c), s	0.0	3.7		2.0	0.1	2.6		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		11.2	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	40	583	71	345	77	273	547
v/c Ratio	0.23	0.69	0.39	0.36	0.16	0.39	0.87
Control Delay	54.1	42.1	57.5	34.0	8.9	13.7	39.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	42.1	57.5	34.0	8.9	13.7	39.9
Queue Length 50th (ft)	29	212	53	116	0	83	338
Queue Length 95th (ft)	56	231	86	136	26	114	390
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	184	1001	196	1096	542	873	788
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.58	0.36	0.31	0.14	0.31	0.69

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	409	40	55	266	59	40	51	119	175	146	100
Future Volume (veh/h)	31	409	40	55	266	59	40	51	119	175	146	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	40	531	52	71	345	77	52	66	155	227	190	130
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	116	732	72	151	866	386	151	195	394	312	233	153
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1682	3089	302	1682	3357	1497	218	406	820	536	484	318
Grp Volume(v), veh/h	40	288	295	71	345	77	273	0	0	547	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1712	1682	1678	1497	1444	0	0	1338	0	0
Q Serve(g_s), s	2.1	14.8	14.9	3.8	8.0	3.8	0.0	0.0	0.0	23.7	0.0	0.0
Cycle Q Clear(g_c), s	2.1	14.8	14.9	3.8	8.0	3.8	10.3	0.0	0.0	34.0	0.0	0.0
Prop In Lane	1.00		0.18	1.00		1.00	0.19		0.57	0.41		0.24
Lane Grp Cap(c), veh/h	116	398	406	151	866	386	740	0	0	698	0	0
V/C Ratio(X)	0.34	0.72	0.73	0.47	0.40	0.20	0.37	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	194	529	539	207	1082	483	981	0	0	930	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.6	32.9	32.9	40.5	28.8	27.2	15.2	0.0	0.0	21.6	0.0	0.0
Incr Delay (d2), s/veh	1.7	8.9	8.9	2.3	1.1	0.9	1.1	0.0	0.0	7.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.5	6.6	1.6	3.1	1.3	3.6	0.0	0.0	10.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	41.8	41.8	42.8	29.8	28.1	16.3	0.0	0.0	28.8	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		623			493			273			547	
Approach Delay, s/veh		41.9			31.4			16.3			28.8	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	29.2		52.1	10.5	31.2		52.1				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	5.8	16.9		12.3	4.1	10.0		36.0				
Green Ext Time (p_c), s	0.1	5.3		4.9	0.0	5.0		9.1				

Intersection Summary			
HCM 6th Ctrl Delay		31.9	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1634	-	-	-	1026	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1634	-	-	-	1026	1088
Mov Cap-2 Maneuver	-	-	-	-	1026	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1634	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	726	2	6	514	4	7	0	7	3	0	0
Future Vol, veh/h	0	726	2	6	514	4	7	0	7	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	764	2	6	541	4	7	0	7	3	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	545	0	0	766	0	0	1048	1322	383	937	1321	273
Stage 1	-	-	-	-	-	-	765	765	-	555	555	-
Stage 2	-	-	-	-	-	-	283	557	-	382	766	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	973	-	-	799	-	-	173	146	596	209	147	704
Stage 1	-	-	-	-	-	-	347	394	-	466	494	-
Stage 2	-	-	-	-	-	-	681	493	-	594	394	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	973	-	-	799	-	-	172	145	596	205	146	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	172	145	-	205	146	-
Stage 1	-	-	-	-	-	-	347	394	-	466	490	-
Stage 2	-	-	-	-	-	-	676	489	-	587	394	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19.3	22.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	267	973	-	-	799	-	-	205
HCM Lane V/C Ratio	0.055	-	-	-	0.008	-	-	0.015
HCM Control Delay (s)	19.3	0	-	-	9.5	-	-	22.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	119	28	14	18	2	14	88	25	6	33	7
Future Vol, veh/h	9	119	28	14	18	2	14	88	25	6	33	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	157	37	18	24	3	18	116	33	8	43	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	8.1	8.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	6%	41%	13%
Vol Thru, %	69%	76%	53%	72%
Vol Right, %	20%	18%	6%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	127	156	34	46
LT Vol	14	9	14	6
Through Vol	88	119	18	33
RT Vol	25	28	2	7
Lane Flow Rate	167	205	45	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.21	0.254	0.059	0.079
Departure Headway (Hd)	4.527	4.459	4.786	4.683
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	794	807	748	765
Service Time	2.553	2.484	2.818	2.712
HCM Lane V/C Ratio	0.21	0.254	0.06	0.08
HCM Control Delay	8.8	9	8.1	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1	0.2	0.3

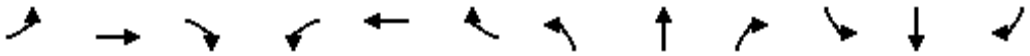
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	121	0	0	85	0
Future Vol, veh/h	0	0	0	0	0	0	0	121	0	0	85	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	0	0	0	0	134	0	0	94	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	228	228	94	228	228	134	94	0	0	134	0	0
Stage 1	94	94	-	134	134	-	-	-	-	-	-	-
Stage 2	134	134	-	94	94	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	713	659	944	713	659	897	1457	-	-	1408	-	-
Stage 1	896	804	-	853	772	-	-	-	-	-	-	-
Stage 2	853	772	-	896	804	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	713	659	944	713	659	897	1457	-	-	1408	-	-
Mov Cap-2 Maneuver	713	659	-	713	659	-	-	-	-	-	-	-
Stage 1	896	804	-	853	772	-	-	-	-	-	-	-
Stage 2	853	772	-	896	804	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

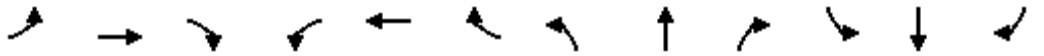
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1457	-	-	-	-	1408	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	104	596	163	198	397	211	156	387	190	125	307	45
v/c Ratio	0.49	0.69	0.42	0.69	0.35	0.41	0.59	0.46	0.50	0.53	0.74	0.13
Control Delay	49.0	36.0	33.8	52.6	27.4	31.1	48.0	32.1	36.4	47.9	45.5	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	36.0	33.8	52.6	27.4	31.1	48.0	32.1	36.4	47.9	45.5	31.4
Queue Length 50th (ft)	56	162	78	106	93	97	83	97	93	67	162	20
Queue Length 95th (ft)	127	258	158	#267	170	203	174	170	189	145	300	56
Internal Link Dist (ft)		349			1207			1910			486	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	315	1568	701	315	1568	701	397	1168	522	397	611	519
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.38	0.23	0.63	0.25	0.30	0.39	0.33	0.36	0.31	0.50	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	542	148	180	361	192	142	352	173	114	279	41
Future Volume (veh/h)	95	542	148	180	361	192	142	352	173	114	279	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	104	596	163	198	397	211	156	387	190	125	307	45
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	879	392	247	1102	491	202	824	368	164	394	334
Arrive On Green	0.08	0.25	0.25	0.14	0.31	0.31	0.11	0.23	0.23	0.09	0.21	0.21
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	104	596	163	198	397	211	156	387	190	125	307	45
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1856	1572
Q Serve(g_s), s	3.7	9.7	5.5	6.9	5.5	6.7	5.4	6.0	6.7	4.4	9.9	1.5
Cycle Q Clear(g_c), s	3.7	9.7	5.5	6.9	5.5	6.7	5.4	6.0	6.7	4.4	9.9	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	879	392	247	1102	491	202	824	368	164	394	334
V/C Ratio(X)	0.77	0.68	0.42	0.80	0.36	0.43	0.77	0.47	0.52	0.76	0.78	0.13
Avail Cap(c_a), veh/h	433	2144	956	433	2144	956	544	1587	708	544	835	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	21.5	19.9	26.4	16.9	17.3	27.2	20.9	21.1	28.0	23.5	20.2
Incr Delay (d2), s/veh	8.7	0.9	0.7	5.9	0.2	0.6	6.2	0.4	1.1	7.2	3.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.4	1.8	2.9	1.8	2.2	2.4	2.2	2.3	2.0	4.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	22.4	20.6	32.3	17.1	17.9	33.5	21.3	22.3	35.2	26.9	20.4
LnGrp LOS	D	C	C	C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		863			806			733			477	
Approach Delay, s/veh		23.8			21.0			24.1			28.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	20.3	11.7	17.9	9.4	24.3	10.4	19.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	8.9	11.7	7.4	11.9	5.7	8.7	6.4	8.7
Green Ext Time (p_c), s	0.3	4.1	0.3	1.6	0.1	3.0	0.2	2.8

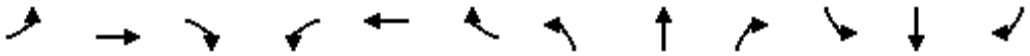
Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	110.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	37	90	69	2	85	36	544	102	88	568	4
Future Vol, veh/h	55	37	90	69	2	85	36	544	102	88	568	4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	73	49	120	92	3	113	48	725	136	117	757	5
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

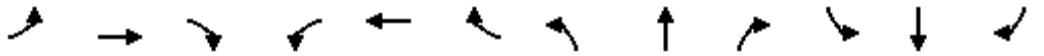
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	42.3	21	128.5	131.3
HCM LOS	E	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	64%	20%	0%	2%	0%	100%	98%
Vol Right, %	0%	0%	36%	49%	0%	98%	0%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	363	283	182	69	87	88	379	193
LT Vol	36	0	0	55	69	0	88	0	0
Through Vol	0	363	181	37	0	2	0	379	189
RT Vol	0	0	102	90	0	85	0	0	4
Lane Flow Rate	48	484	378	243	92	116	117	505	258
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.135	1.295	0.985	0.742	0.306	0.348	0.333	1.362	0.694
Departure Headway (Hd)	10.73	10.205	9.941	11.933	13.04	11.8	10.673	10.149	10.134
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	336	358	366	306	278	307	339	364	358
Service Time	8.43	7.905	7.641	9.633	10.74	9.5	8.373	7.849	7.834
HCM Lane V/C Ratio	0.143	1.352	1.033	0.794	0.331	0.378	0.345	1.387	0.721
HCM Control Delay	15.1	181	75.7	42.3	21.4	20.7	18.6	207.7	32.9
HCM Lane LOS	C	F	F	E	C	C	C	F	D
HCM 95th-tile Q	0.5	21.1	11.2	5.5	1.3	1.5	1.4	23.7	5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	136	12	250	67	11	2	82	676	107	6	802	48
v/c Ratio	0.47	0.03	0.63	0.32	0.03	0.01	0.36	0.43	0.15	0.04	0.68	0.09
Control Delay	41.9	27.1	37.5	43.7	31.4	31.5	43.1	16.6	15.8	45.6	28.3	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	27.1	37.5	43.7	31.4	31.5	43.1	16.6	15.8	45.6	28.3	22.9
Queue Length 50th (ft)	66	5	117	33	5	1	40	111	29	3	192	17
Queue Length 95th (ft)	134	19	210	82	20	7	93	207	77	17	286	46
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	479	1112	945	287	993	844	342	2099	939	137	1822	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.01	0.26	0.23	0.01	0.00	0.24	0.32	0.11	0.04	0.44	0.06

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	10	210	56	9	2	69	568	90	5	674	40
Future Volume (veh/h)	114	10	210	56	9	2	69	568	90	5	674	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	136	12	250	67	11	2	82	676	107	6	802	48
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	379	322	103	300	254	115	1373	612	14	1171	522
Arrive On Green	0.10	0.21	0.21	0.06	0.16	0.16	0.07	0.39	0.39	0.01	0.33	0.33
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	136	12	250	67	11	2	82	676	107	6	802	48
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.1	0.3	8.2	2.0	0.3	0.1	2.5	7.8	2.4	0.2	10.6	1.1
Cycle Q Clear(g_c), s	4.1	0.3	8.2	2.0	0.3	0.1	2.5	7.8	2.4	0.2	10.6	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	379	322	103	300	254	115	1373	612	14	1171	522
V/C Ratio(X)	0.76	0.03	0.78	0.65	0.04	0.01	0.71	0.49	0.17	0.43	0.68	0.09
Avail Cap(c_a), veh/h	570	1505	1275	342	1266	1072	407	2762	1232	163	2275	1015
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	17.1	20.2	24.8	19.0	18.9	24.6	12.3	10.7	26.6	15.4	12.3
Incr Delay (d2), s/veh	6.5	0.0	4.1	6.7	0.0	0.0	7.9	0.3	0.1	19.5	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.1	2.9	1.0	0.1	0.0	1.2	2.4	0.7	0.1	3.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	17.1	24.3	31.5	19.0	18.9	32.5	12.6	10.8	46.0	16.2	12.4
LnGrp LOS	C	B	C	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		398			80			865			856	
Approach Delay, s/veh		26.0			29.5			14.3			16.2	
Approach LOS		C			C			B			B	

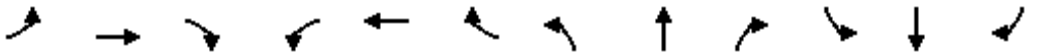
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	15.6	8.0	22.5	10.0	13.3	4.9	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	4.0	10.2	4.5	12.6	6.1	2.3	2.2	9.8
Green Ext Time (p_c), s	0.1	0.9	0.1	5.4	0.2	0.0	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	176	765	53	257	116	126	571	93	158	848	110
v/c Ratio	0.70	0.60	0.62	0.29	0.22	0.74	0.60	0.17	0.66	0.78	0.23
Control Delay	57.4	25.8	80.8	33.5	2.0	72.3	35.5	0.7	55.7	36.9	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	25.8	80.8	33.5	2.0	72.3	35.5	0.7	55.7	36.9	26.5
Queue Length 50th (ft)	111	186	35	71	0	82	172	0	100	265	53
Queue Length 95th (ft)	185	270	#100	118	5	#185	229	0	168	314	90
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	324	1283	86	882	526	172	1386	725	332	1707	763
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.60	0.62	0.29	0.22	0.73	0.41	0.13	0.48	0.50	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



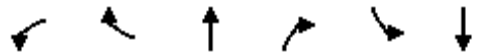
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	419	239	46	221	100	108	491	80	136	729	95
Future Volume (veh/h)	151	419	239	46	221	100	108	491	80	136	729	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	176	487	278	53	257	116	126	571	93	158	848	110
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	210	811	461	68	1036	462	154	999	445	192	1073	479
Arrive On Green	0.12	0.38	0.38	0.04	0.30	0.30	0.09	0.29	0.29	0.11	0.31	0.31
Sat Flow, veh/h	1739	2131	1211	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	176	396	369	53	257	116	126	571	93	158	848	110
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	9.8	18.1	18.2	3.0	5.5	5.6	7.0	13.8	4.5	8.8	22.0	5.2
Cycle Q Clear(g_c), s	9.8	18.1	18.2	3.0	5.5	5.6	7.0	13.8	4.5	8.8	22.0	5.2
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	660	612	68	1036	462	154	999	445	192	1073	479
V/C Ratio(X)	0.84	0.60	0.60	0.78	0.25	0.25	0.82	0.57	0.21	0.82	0.79	0.23
Avail Cap(c_a), veh/h	332	660	612	88	1036	462	176	1415	631	341	1742	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	24.5	24.6	47.0	26.2	26.2	44.1	29.9	26.6	42.9	31.1	25.3
Incr Delay (d2), s/veh	10.3	4.0	4.4	28.2	0.6	1.3	22.4	0.5	0.2	8.6	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	7.4	6.9	1.7	2.2	2.2	3.9	5.6	1.6	4.1	8.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	28.5	28.9	75.1	26.8	27.5	66.5	30.4	26.8	51.5	32.5	25.6
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		941			426			790			1116	
Approach Delay, s/veh		33.2			33.0			35.8			34.5	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	42.0	13.3	35.0	16.4	33.9	15.4	32.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.0	20.2	9.0	24.0	11.8	7.6	10.8	15.8
Green Ext Time (p_c), s	0.0	3.9	0.0	6.5	0.2	1.5	0.2	4.0

Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	36	86	850	98	1014
v/c Ratio	0.09	0.20	0.44	0.56	0.42
Control Delay	37.3	9.0	16.6	63.1	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	9.0	16.6	63.1	8.4
Queue Length 50th (ft)	22	0	190	74	158
Queue Length 95th (ft)	51	42	262	126	196
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	401	425	1932	299	2438
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.20	0.44	0.33	0.42

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	77	684	81	88	913
Future Volume (veh/h)	32	77	684	81	88	913
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	86	760	90	98	1014
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1869	221	123	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3268	376	1767	3618
Grp Volume(v), veh/h	36	86	422	428	98	1014
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1788	1767	1763
Q Serve(g_s), s	1.9	5.4	15.5	15.5	6.6	14.7
Cycle Q Clear(g_c), s	1.9	5.4	15.5	15.5	6.6	14.7
Prop In Lane	1.00	1.00		0.21	1.00	
Lane Grp Cap(c), veh/h	405	360	1038	1052	123	2453
V/C Ratio(X)	0.09	0.24	0.41	0.41	0.79	0.41
Avail Cap(c_a), veh/h	405	360	1038	1052	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	37.7	13.4	13.4	55.0	7.8
Incr Delay (d2), s/veh	0.4	1.6	1.2	1.2	10.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.2	6.1	6.2	3.2	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.8	39.3	14.5	14.5	65.9	8.3
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	122		850			1112
Approach Delay, s/veh	38.6		14.5			13.4
Approach LOS	D		B			B

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				88.0		32.0	12.9	75.1
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s				16.7		7.4	8.6	17.5
Green Ext Time (p_c), s				8.4		0.3	0.1	5.8

Intersection Summary								
HCM 6th Ctrl Delay			15.3					
HCM 6th LOS			B					

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	860	65	35	1010	0	9	0	38	0	0	0
Future Vol, veh/h	0	860	65	35	1010	0	9	0	38	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	3	3	3	3	2	3	2	3	2	2	2
Mvmt Flow	0	945	71	38	1110	0	10	0	42	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1110	0	0	1016	0	0	2167	2167	981	2188	2202	1110
Stage 1	-	-	-	-	-	-	981	981	-	1186	1186	-
Stage 2	-	-	-	-	-	-	1186	1186	-	1002	1016	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.13	6.52	6.23	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.527	4.018	3.327	3.518	4.018	3.318
Pot Cap-1 Maneuver	629	-	-	679	-	-	34	47	301	33	45	255
Stage 1	-	-	-	-	-	-	299	328	-	230	262	-
Stage 2	-	-	-	-	-	-	229	262	-	292	315	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	629	-	-	679	-	-	30	40	301	25	38	255
Mov Cap-2 Maneuver	-	-	-	-	-	-	30	40	-	25	38	-
Stage 1	-	-	-	-	-	-	299	328	-	230	224	-
Stage 2	-	-	-	-	-	-	196	224	-	251	315	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	63.8	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	110	629	-	-	679	-	-	-
HCM Lane V/C Ratio	0.47	-	-	-	0.057	-	-	-
HCM Control Delay (s)	63.8	0	-	-	10.6	0	-	0
HCM Lane LOS	F	A	-	-	B	A	-	A
HCM 95th %tile Q(veh)	2.1	0	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	188	3	59	132	33	1	12	59	16	11	5
Future Vol, veh/h	16	188	3	59	132	33	1	12	59	16	11	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	18	216	3	68	152	38	1	14	68	18	13	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	190	0	0	219	0	0	571	580	218	602	562	171
Stage 1	-	-	-	-	-	-	254	254	-	307	307	-
Stage 2	-	-	-	-	-	-	317	326	-	295	255	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1390	-	-	1356	-	-	433	427	824	413	437	875
Stage 1	-	-	-	-	-	-	753	699	-	705	663	-
Stage 2	-	-	-	-	-	-	696	650	-	716	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1390	-	-	1356	-	-	400	401	824	351	410	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	400	401	-	351	410	-
Stage 1	-	-	-	-	-	-	743	690	-	696	630	-
Stage 2	-	-	-	-	-	-	644	618	-	636	689	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.1	10.8	14.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	400	699	1390	-	-	1356	-	-	410
HCM Lane V/C Ratio	0.003	0.117	0.013	-	-	0.05	-	-	0.09
HCM Control Delay (s)	14	10.8	7.6	-	-	7.8	-	-	14.6
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	82	27	42	32	1	26	0	53	0	1	1
Future Vol, veh/h	0	82	27	42	32	1	26	0	53	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	92	30	47	36	1	29	0	60	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	37	0	0	122	0	0	239	238	107	268	253	37
Stage 1	-	-	-	-	-	-	107	107	-	131	131	-
Stage 2	-	-	-	-	-	-	132	131	-	137	122	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1580	-	-	1472	-	-	717	665	950	687	652	1038
Stage 1	-	-	-	-	-	-	901	809	-	875	790	-
Stage 2	-	-	-	-	-	-	874	790	-	869	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1472	-	-	697	643	950	628	630	1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	697	643	-	628	630	-
Stage 1	-	-	-	-	-	-	901	809	-	875	764	-
Stage 2	-	-	-	-	-	-	843	764	-	815	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.2	9.7	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	849	1580	-	-	1472	-	-	784
HCM Lane V/C Ratio	0.105	-	-	-	0.032	-	-	0.003
HCM Control Delay (s)	9.7	0	-	-	7.5	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0

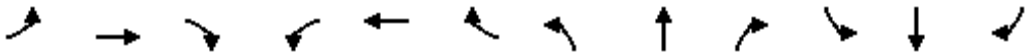
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	0	0	78	0	0	69	0
Future Vol, veh/h	0	0	0	1	0	0	0	78	0	0	69	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	1	0	0	0	84	0	0	74	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	158	158	74	158	158	84	74	0	0	84	0	0
Stage 1	74	74	-	84	84	-	-	-	-	-	-	-
Stage 2	84	84	-	74	74	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	813	738	993	813	738	981	1538	-	-	1526	-	-
Stage 1	940	837	-	929	829	-	-	-	-	-	-	-
Stage 2	929	829	-	940	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	813	738	993	813	738	981	1538	-	-	1526	-	-
Mov Cap-2 Maneuver	813	738	-	813	738	-	-	-	-	-	-	-
Stage 1	940	837	-	929	829	-	-	-	-	-	-	-
Stage 2	929	829	-	940	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.4	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	-	813	1526	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	0	-	-	0	9.4	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

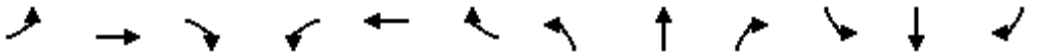


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	670	280	117	586	93	389	235	197	38	76	87
v/c Ratio	0.44	0.74	0.32	0.56	0.56	0.10	3.19	0.62	0.41	0.42	0.15	0.26
Control Delay	59.4	28.8	5.8	53.0	18.6	3.2	1020.9	44.8	7.8	62.6	36.6	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	28.8	5.8	53.0	18.6	3.2	1020.9	44.8	7.8	62.6	36.6	3.4
Queue Length 50th (ft)	32	339	20	72	246	0	~446	144	0	24	22	0
Queue Length 95th (ft)	76	#642	81	135	416	26	#677	225	57	#66	42	12
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	120	905	882	279	1047	931	122	706	722	91	1279	659
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.74	0.32	0.42	0.56	0.10	3.19	0.33	0.27	0.42	0.06	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



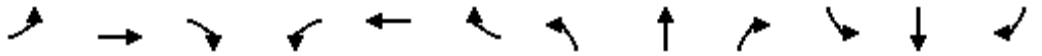
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	616	258	108	539	86	358	216	181	35	70	80
Future Volume (veh/h)	47	616	258	108	539	86	358	216	181	35	70	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	670	280	117	586	93	389	235	197	38	76	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	991	840	148	1073	909	127	302	256	60	438	195
Arrive On Green	0.04	0.53	0.53	0.08	0.57	0.57	0.07	0.16	0.16	0.03	0.12	0.12
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	51	670	280	117	586	93	389	235	197	38	76	87
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	2.7	24.6	9.4	6.0	18.2	2.5	6.7	11.3	11.1	2.0	1.8	4.8
Cycle Q Clear(g_c), s	2.7	24.6	9.4	6.0	18.2	2.5	6.7	11.3	11.1	2.0	1.8	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	70	991	840	148	1073	909	127	302	256	60	438	195
V/C Ratio(X)	0.73	0.68	0.33	0.79	0.55	0.10	3.05	0.78	0.77	0.64	0.17	0.45
Avail Cap(c_a), veh/h	126	991	840	291	1073	909	127	733	621	95	1329	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	16.1	12.6	42.1	12.4	9.0	43.5	37.7	37.6	44.7	36.8	38.1
Incr Delay (d2), s/veh	13.5	3.7	1.1	9.1	2.0	0.2	943.6	4.3	4.9	10.7	0.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	9.6	3.2	2.9	6.6	0.8	36.2	5.3	4.5	1.0	0.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	19.8	13.6	51.2	14.4	9.3	987.1	42.0	42.5	55.4	36.9	39.7
LnGrp LOS	E	B	B	D	B	A	F	D	D	E	D	D
Approach Vol, veh/h		1001			796			821			201	
Approach Delay, s/veh		20.0			19.2			489.9			41.6	
Approach LOS		C			B			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	54.1	11.2	16.0	8.2	58.2	7.6	19.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.0	26.6	8.7	6.8	4.7	20.2	4.0	13.3
Green Ext Time (p_c), s	0.1	4.6	0.0	0.6	0.0	3.8	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	158.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	263	111	175	221	521	259	36	352
v/c Ratio	0.39	0.45	0.63	0.23	0.76	0.70	0.33	0.38	0.40
Control Delay	67.4	29.8	66.7	23.5	63.5	35.7	4.2	66.5	37.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.4	29.8	66.7	23.5	63.5	35.7	4.2	66.5	37.3
Queue Length 50th (ft)	28	138	83	87	165	346	0	28	115
Queue Length 95th (ft)	64	222	144	143	245	482	54	64	167
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	94	589	209	750	364	749	791	97	889
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.45	0.53	0.23	0.61	0.70	0.33	0.37	0.40

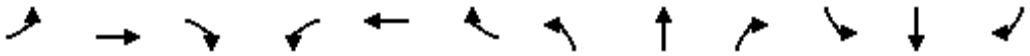
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	131	117	104	131	34	208	490	243	34	300	31
Future Volume (veh/h)	34	131	117	104	131	34	208	490	243	34	300	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	139	124	111	139	36	221	521	259	36	319	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	310	277	138	556	144	253	739	626	53	920	95
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.14	0.40	0.40	0.03	0.28	0.28
Sat Flow, veh/h	1781	911	813	1781	1433	371	1781	1870	1585	1781	3253	334
Grp Volume(v), veh/h	36	0	263	111	0	175	221	521	259	36	173	179
Grp Sat Flow(s),veh/h/ln	1781	0	1724	1781	0	1804	1781	1870	1585	1781	1777	1810
Q Serve(g_s), s	2.3	0.0	13.6	7.0	0.0	7.5	13.9	26.7	13.5	2.3	8.9	9.0
Cycle Q Clear(g_c), s	2.3	0.0	13.6	7.0	0.0	7.5	13.9	26.7	13.5	2.3	8.9	9.0
Prop In Lane	1.00		0.47	1.00		0.21	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	53	0	587	138	0	700	253	739	626	53	503	512
V/C Ratio(X)	0.68	0.00	0.45	0.81	0.00	0.25	0.87	0.71	0.41	0.68	0.34	0.35
Avail Cap(c_a), veh/h	95	0	587	210	0	700	366	739	626	98	503	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	29.3	52.0	0.0	23.7	48.1	29.0	25.0	55.0	32.6	32.6
Incr Delay (d2), s/veh	14.1	0.0	2.5	12.5	0.0	0.9	14.9	5.6	2.0	14.1	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	5.8	3.5	0.0	3.2	7.0	12.5	5.2	1.2	3.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	0.0	31.8	64.4	0.0	24.6	62.9	34.6	27.0	69.1	34.5	34.5
LnGrp LOS	E	A	C	E	A	C	E	C	C	E	C	C
Approach Vol, veh/h		299			286			1001			388	
Approach Delay, s/veh		36.3			40.0			38.9			37.7	
Approach LOS		D			D			D			D	

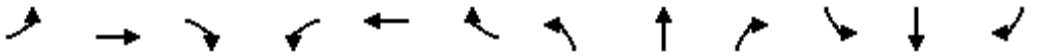
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	43.5	20.7	36.9	7.9	48.9	7.9	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.0	15.6	15.9	11.0	4.3	9.5	4.3	28.7
Green Ext Time (p_c), s	0.1	1.4	0.3	1.6	0.0	0.9	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	129	423	88	109	234	220	187	819	147	216	439	66
v/c Ratio	0.66	0.37	0.15	0.62	0.21	0.34	0.75	0.83	0.30	0.77	0.42	0.14
Control Delay	75.0	38.0	8.3	75.4	37.1	6.5	75.7	53.8	20.7	73.5	39.1	36.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.0	38.0	8.3	75.4	37.1	6.5	75.7	53.8	20.7	73.5	39.1	36.1
Queue Length 50th (ft)	110	151	0	93	80	0	158	351	47	183	161	42
Queue Length 95th (ft)	194	231	44	170	133	65	263	468	113	294	225	85
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	264	1153	575	237	1113	649	319	1207	590	373	1316	588
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.37	0.15	0.46	0.21	0.34	0.59	0.68	0.25	0.58	0.33	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	415	86	107	229	216	183	803	144	212	430	65
Future Volume (veh/h)	126	415	86	107	229	216	183	803	144	212	430	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	423	88	109	234	220	187	819	147	216	439	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	1267	565	135	1224	546	218	986	440	248	1046	466
Arrive On Green	0.09	0.36	0.36	0.08	0.34	0.34	0.12	0.28	0.28	0.14	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	129	423	88	109	234	220	187	819	147	216	439	66
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.5	10.4	4.5	7.2	5.5	12.6	12.3	25.8	8.8	14.2	11.9	3.7
Cycle Q Clear(g_c), s	8.5	10.4	4.5	7.2	5.5	12.6	12.3	25.8	8.8	14.2	11.9	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	1267	565	135	1224	546	218	986	440	248	1046	466
V/C Ratio(X)	0.82	0.33	0.16	0.81	0.19	0.40	0.86	0.83	0.33	0.87	0.42	0.14
Avail Cap(c_a), veh/h	291	1267	565	262	1224	546	351	1327	592	411	1446	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	28.0	26.1	54.2	27.4	29.7	51.3	40.4	34.3	50.3	33.9	31.0
Incr Delay (d2), s/veh	10.1	0.7	0.6	10.6	0.3	2.2	11.4	3.4	0.4	10.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.3	1.7	3.5	2.3	5.0	6.0	11.3	3.4	6.9	5.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	28.7	26.7	64.8	27.8	31.9	62.8	43.9	34.7	61.0	34.1	31.1
LnGrp LOS	E	C	C	E	C	C	E	D	C	E	C	C
Approach Vol, veh/h		640			563			1153			721	
Approach Delay, s/veh		35.4			36.6			45.8			41.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	47.0	19.1	39.6	15.0	45.5	21.1	37.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	42.5	23.5	48.5	19.5	40.5	27.5	44.5
Max Q Clear Time (g_c+I1), s	9.2	12.4	14.3	13.9	10.5	14.6	16.2	27.8
Green Ext Time (p_c), s	0.1	2.7	0.3	3.0	0.2	2.0	0.4	5.3

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	109	12	1	80
Future Vol, veh/h	5	1	109	12	1	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	6	1	121	13	1	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	219	128	0	0	134	0
Stage 1	128	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	754	904	-	-	1408	-
Stage 1	881	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	753	904	-	-	1408	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	775	1408	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	9.7	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	40	915	27	756	72
v/c Ratio	0.11	0.47	0.26	0.35	0.19
Control Delay	11.2	13.1	56.6	7.5	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	13.1	56.6	7.5	11.2
Queue Length 50th (ft)	12	190	19	103	2
Queue Length 95th (ft)	31	255	49	132	41
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	374	1944	177	2428	383
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.47	0.15	0.31	0.19

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	852	8	25	711	0	4	0	64	0	0	0
Future Volume (veh/h)	38	852	8	25	711	0	4	0	64	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	40	906	9	27	756	0	4	0	68			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	440	2008	20	41	2191	0	18	0	312			
Arrive On Green	0.62	0.62	0.62	0.03	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	635	3234	32	1598	3272	0	79	0	1351			
Grp Volume(v), veh/h	40	447	468	27	756	0	72	0	0			
Grp Sat Flow(s),veh/h/ln	635	1594	1672	1598	1594	0	1431	0	0			
Q Serve(g_s), s	3.0	16.3	16.3	1.8	10.7	0.0	4.5	0.0	0.0			
Cycle Q Clear(g_c), s	6.5	16.3	16.3	1.8	10.7	0.0	4.5	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.06		0.94			
Lane Grp Cap(c), veh/h	440	990	1038	41	2191	0	331	0	0			
V/C Ratio(X)	0.09	0.45	0.45	0.66	0.35	0.00	0.22	0.00	0.00			
Avail Cap(c_a), veh/h	440	990	1038	181	2471	0	331	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.9	11.0	11.0	53.3	7.1	0.0	34.3	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.5	1.4	16.9	0.1	0.0	1.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.1	5.4	0.9	2.8	0.0	1.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.3	12.5	12.4	70.1	7.2	0.0	35.8	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		955			783			72				
Approach Delay, s/veh		12.4			9.3			35.8				
Approach LOS		B			A			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.3	73.0				80.3		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.8	18.3				12.7		6.5				
Green Ext Time (p_c), s	0.0	6.2				5.2		0.3				

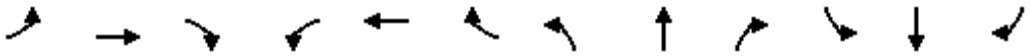
Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	302	12	504	120	110	727
v/c Ratio	0.20	0.65	0.07	0.52	0.28	0.38	0.48
Control Delay	17.6	26.5	33.7	22.3	22.3	31.1	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	26.5	33.7	22.3	22.3	31.1	13.8
Queue Length 50th (ft)	29	94	4	81	34	36	77
Queue Length 95th (ft)	77	215	23	170	96	103	218
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	1107	920	291	2621	1172	597	2927
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.33	0.04	0.19	0.10	0.18	0.25

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	62	36	103	59	107	11	449	107	98	646	1
Future Volume (veh/h)	1	62	36	103	59	107	11	449	107	98	646	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	70	40	116	66	120	12	504	120	110	726	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	95	303	171	255	127	166	26	906	404	150	1181	2
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.02	0.27	0.27	0.09	0.35	0.35
Sat Flow, veh/h	3	1048	592	435	438	576	1668	3328	1485	1668	3410	5
Grp Volume(v), veh/h	111	0	0	302	0	0	12	504	120	110	354	373
Grp Sat Flow(s),veh/h/ln	1643	0	0	1449	0	0	1668	1664	1485	1668	1664	1751
Q Serve(g_s), s	0.0	0.0	0.0	4.9	0.0	0.0	0.3	5.0	2.5	2.5	6.8	6.8
Cycle Q Clear(g_c), s	2.0	0.0	0.0	7.1	0.0	0.0	0.3	5.0	2.5	2.5	6.8	6.8
Prop In Lane	0.01		0.36	0.38		0.40	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	569	0	0	547	0	0	26	906	404	150	576	606
V/C Ratio(X)	0.20	0.00	0.00	0.55	0.00	0.00	0.46	0.56	0.30	0.74	0.61	0.61
Avail Cap(c_a), veh/h	1726	0	0	1540	0	0	410	4175	1862	841	2518	2649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	12.2	0.0	0.0	18.9	12.1	11.1	17.2	10.5	10.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.9	0.0	0.0	12.1	0.5	0.4	6.8	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.9	0.0	0.0	0.2	1.2	0.5	1.0	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.6	0.0	0.0	13.1	0.0	0.0	31.0	12.6	11.5	24.0	11.6	11.5
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		111			302			636			837	
Approach Delay, s/veh		10.6			13.1			12.7			13.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.7	5.1	17.9		15.7	8.0	15.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	9.5	58.5		38.5	19.5	48.5				
Max Q Clear Time (g_c+I1), s		4.0	2.3	8.8		9.1	4.5	7.0				
Green Ext Time (p_c), s		0.6	0.0	4.2		2.1	0.2	3.5				

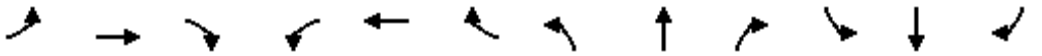
Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	270	420	268	242	440	103	88	467	235	72	844
v/c Ratio	0.99	0.45	0.44	0.88	0.48	0.21	0.54	0.49	0.42	0.49	0.92
Control Delay	98.3	34.9	6.5	77.9	35.3	7.5	59.9	34.9	9.9	59.5	51.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.3	34.9	6.5	77.9	35.3	7.5	59.9	34.9	9.9	59.5	51.1
Queue Length 50th (ft)	~200	132	0	174	138	0	62	146	21	50	290
Queue Length 95th (ft)	#395	192	65	#344	201	43	114	210	91	98	#445
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	274	925	603	274	925	486	274	953	562	274	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.45	0.44	0.88	0.48	0.21	0.32	0.49	0.42	0.26	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	391	249	225	409	96	82	434	219	67	522	263
Future Volume (veh/h)	251	391	249	225	409	96	82	434	219	67	522	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	270	420	268	242	440	103	88	467	235	72	561	283
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	285	990	441	268	957	427	110	972	433	91	601	303
Arrive On Green	0.18	0.31	0.31	0.17	0.30	0.30	0.07	0.30	0.30	0.06	0.29	0.29
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	270	420	268	242	440	103	88	467	235	72	436	408
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	17.8	11.2	17.1	15.8	12.0	5.8	5.8	12.7	14.7	4.7	28.4	28.4
Cycle Q Clear(g_c), s	17.8	11.2	17.1	15.8	12.0	5.8	5.8	12.7	14.7	4.7	28.4	28.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	285	990	441	268	957	427	110	972	433	91	467	437
V/C Ratio(X)	0.95	0.42	0.61	0.90	0.46	0.24	0.80	0.48	0.54	0.79	0.93	0.94
Avail Cap(c_a), veh/h	285	990	441	285	957	427	285	972	433	285	478	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	29.6	31.7	44.0	30.7	28.6	49.4	30.6	31.3	50.1	37.2	37.2
Incr Delay (d2), s/veh	39.4	1.3	6.1	28.6	1.6	1.3	12.4	0.4	1.4	14.4	25.3	26.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	4.2	6.2	8.1	4.5	2.0	2.6	4.6	4.9	2.2	13.5	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.2	31.0	37.8	72.5	32.3	29.9	61.8	31.0	32.7	64.5	62.4	64.0
LnGrp LOS	F	C	D	E	C	C	E	C	C	E	E	E
Approach Vol, veh/h		958			785			790			916	
Approach Delay, s/veh		47.6			44.4			34.9			63.3	
Approach LOS		D			D			C			E	

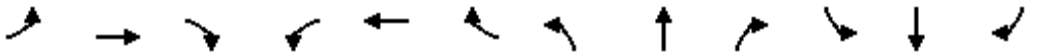
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	37.6	11.8	35.7	23.5	36.5	10.5	37.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	32.0	19.0	32.0	19.0	32.0	19.0	32.0
Max Q Clear Time (g_c+I1), s	17.8	19.1	7.8	30.4	19.8	14.0	6.7	16.7
Green Ext Time (p_c), s	0.1	2.7	0.1	0.8	0.0	2.6	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	48.1
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	20	66	13	204	890	16	4	1003	119
v/c Ratio	0.21	0.09	0.15	0.92	0.55	0.02	0.05	0.90	0.20
Control Delay	57.9	0.3	57.2	91.9	21.6	0.1	54.8	47.4	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	0.3	57.2	91.9	21.6	0.1	54.8	47.4	4.2
Queue Length 50th (ft)	14	0	9	142	191	0	3	334	0
Queue Length 95th (ft)	41	0	31	#311	359	0	15	#514	30
Internal Link Dist (ft)					1421			2552	
Turn Bay Length (ft)	200	110	120	250		275	305		110
Base Capacity (vph)	107	707	93	222	1626	774	93	1162	606
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.09	0.14	0.92	0.55	0.02	0.04	0.86	0.20

Intersection Summary

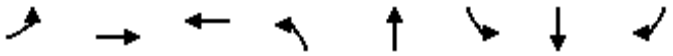
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	59	12	0	0	182	792	14	4	893	106
Future Volume (veh/h)	18	0	59	12	0	0	182	792	14	4	893	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	20	0	66	13	0	0	204	890	16	4	1003	119
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	34	1135	506	24	1116	498	223	1527	681	8	1098	490
Arrive On Green	0.02	0.00	0.35	0.01	0.00	0.00	0.14	0.47	0.47	0.01	0.34	0.34
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	20	0	66	13	0	0	204	890	16	4	1003	119
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.4	0.0	3.5	0.9	0.0	0.0	14.0	22.6	0.7	0.3	33.4	6.7
Cycle Q Clear(g_c), s	1.4	0.0	3.5	0.9	0.0	0.0	14.0	22.6	0.7	0.3	33.4	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	1135	506	24	1116	498	223	1527	681	8	1098	490
V/C Ratio(X)	0.60	0.00	0.13	0.54	0.00	0.00	0.91	0.58	0.02	0.47	0.91	0.24
Avail Cap(c_a), veh/h	108	1135	506	94	1116	498	223	1527	681	94	1164	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	0.0	25.0	55.2	0.0	0.0	48.0	21.8	16.0	56.0	35.8	26.9
Incr Delay (d2), s/veh	15.7	0.0	0.5	17.4	0.0	0.0	37.6	0.6	0.0	35.5	10.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	0.5	0.0	0.0	7.7	7.8	0.2	0.2	13.8	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.6	0.0	25.5	72.6	0.0	0.0	85.6	22.4	16.0	91.5	46.4	27.2
LnGrp LOS	E	A	C	E	A	A	F	C	B	F	D	C
Approach Vol, veh/h		86			13			1110			1126	
Approach Delay, s/veh		36.0			72.6			33.9			44.5	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	44.0	20.0	42.7	6.8	43.3	5.1	57.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	2.9	5.5	16.0	35.4	3.4	0.0	2.3	24.6
Green Ext Time (p_c), s	0.0	0.2	0.0	2.8	0.0	0.0	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

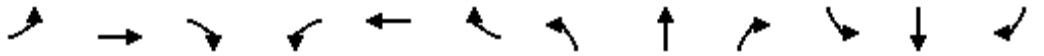


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	23	37	2	328	1177	6	966	195
v/c Ratio	0.13	0.10	0.01	1.94	0.57	0.03	0.63	0.25
Control Delay	24.1	0.5	22.5	466.9	7.1	24.2	11.4	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	0.5	22.5	466.9	7.1	24.2	11.4	2.1
Queue Length 50th (ft)	6	0	1	~142	63	1	95	0
Queue Length 95th (ft)	27	0	6	#357	201	12	140	19
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	579	772	622	169	3214	389	3223	1442
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.05	0.00	1.94	0.37	0.02	0.30	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

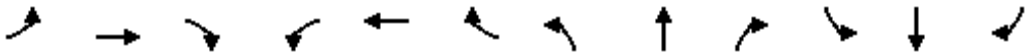
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	993	19	5	831	168
Future Volume (veh/h)	20	0	32	1	0	1	282	993	19	5	831	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1155	22	6	966	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	316	0	168	176	30	82	188	1862	35	13	1505	671
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.57	0.57	0.01	0.46	0.46
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3284	63	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	575	602	6	966	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1711	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	10.2	10.2	0.2	9.8	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	10.2	10.2	0.2	9.8	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	316	0	168	288	0	0	188	927	970	13	1505	671
V/C Ratio(X)	0.07	0.00	0.22	0.01	0.00	0.00	1.74	0.62	0.62	0.46	0.64	0.29
Avail Cap(c_a), veh/h	810	0	721	802	0	0	188	2763	2890	433	6015	2683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	17.5	17.1	0.0	0.0	19.3	6.3	6.3	21.5	9.0	7.3
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.0	0.0	0.0	354.3	0.7	0.7	22.6	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	20.0	1.3	1.3	0.1	1.8	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	0.0	18.1	17.1	0.0	0.0	373.6	7.0	7.0	44.0	9.5	7.6
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1505			1167	
Approach Delay, s/veh		17.9			17.1			86.9			9.3	
Approach LOS		B			B			F			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	9.5	24.5		9.5	4.8	29.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	5.0	80.0		21.5	11.5	73.5				
Max Q Clear Time (g_c+I1), s		3.0	7.0	11.8		2.0	2.2	12.2				
Green Ext Time (p_c), s		0.2	0.0	8.2		0.0	0.0	8.4				

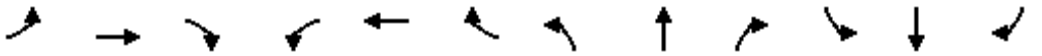
Intersection Summary												
HCM 6th Ctrl Delay			52.2									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	183	239	68	149	253	198	1058	75	201	674	56
v/c Ratio	0.87	0.16	0.36	0.65	0.14	0.39	0.83	0.95	0.13	0.95	0.63	0.12
Control Delay	111.8	30.8	5.4	86.2	31.8	5.7	81.2	58.6	4.8	106.4	40.9	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.8	30.8	5.4	86.2	31.8	5.7	81.2	58.6	4.8	106.4	40.9	32.7
Queue Length 50th (ft)	90	57	0	57	46	0	162	452	0	171	257	34
Queue Length 95th (ft)	#202	87	59	#122	74	61	#277	#588	27	#327	326	68
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	122	1154	672	111	1064	648	261	1141	568	211	1063	475
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.16	0.36	0.61	0.14	0.39	0.76	0.93	0.13	0.95	0.63	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	170	222	63	139	235	184	984	70	187	627	52
Future Volume (veh/h)	99	170	222	63	139	235	184	984	70	187	627	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	106	183	239	68	149	253	198	1058	75	201	674	56
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	124	1159	517	85	1082	482	223	1128	503	216	1114	497
Arrive On Green	0.07	0.35	0.35	0.05	0.32	0.32	0.13	0.34	0.34	0.13	0.33	0.33
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	106	183	239	68	149	253	198	1058	75	201	674	56
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	8.0	4.9	16.0	5.1	4.1	17.8	14.9	39.4	4.5	15.2	21.6	3.3
Cycle Q Clear(g_c), s	8.0	4.9	16.0	5.1	4.1	17.8	14.9	39.4	4.5	15.2	21.6	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	1159	517	85	1082	482	223	1128	503	216	1114	497
V/C Ratio(X)	0.85	0.16	0.46	0.80	0.14	0.52	0.89	0.94	0.15	0.93	0.61	0.11
Avail Cap(c_a), veh/h	124	1159	517	114	1082	482	267	1160	517	216	1114	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	29.2	32.8	60.5	31.0	35.6	54.9	41.4	29.9	55.6	36.0	29.9
Incr Delay (d2), s/veh	40.5	0.3	3.0	24.2	0.3	4.0	25.5	13.9	0.1	42.8	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	1.9	6.0	2.7	1.6	6.8	7.7	17.6	1.6	8.8	8.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.5	29.5	35.8	84.6	31.2	39.6	80.5	55.3	30.0	98.4	36.9	30.0
LnGrp LOS	F	C	D	F	C	D	F	E	C	F	D	C
Approach Vol, veh/h		528			470			1331			931	
Approach Delay, s/veh		46.4			43.5			57.6			49.8	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	49.0	21.6	47.2	14.0	46.0	21.0	47.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	7.1	18.0	16.9	23.6	10.0	19.8	17.2	41.4
Green Ext Time (p_c), s	0.0	1.8	0.2	3.8	0.0	1.6	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

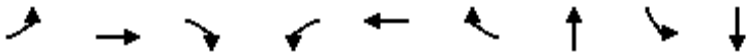
Intersection	
Int Delay, s/veh	11.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	2	20	21	1	2	22	173	7	2	181	56
Future Vol, veh/h	57	2	20	21	1	2	22	173	7	2	181	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	2	21	22	1	2	23	184	7	2	193	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	23	0	0	308	182	13	276	191	2
Stage 1	-	-	-	-	-	-	135	135	-	46	46	-
Stage 2	-	-	-	-	-	-	173	47	-	230	145	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1593	-	-	1566	-	-	637	705	1056	668	697	1071
Stage 1	-	-	-	-	-	-	859	777	-	958	849	-
Stage 2	-	-	-	-	-	-	820	848	-	764	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1593	-	-	1566	-	-	448	668	1056	502	661	1071
Mov Cap-2 Maneuver	-	-	-	-	-	-	448	668	-	502	661	-
Stage 1	-	-	-	-	-	-	825	747	-	921	837	-
Stage 2	-	-	-	-	-	-	588	836	-	549	739	-

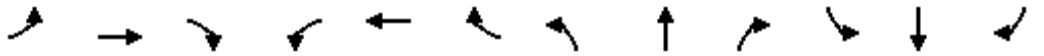
Approach	EB	WB	NB	SB
HCM Control Delay, s	5.3	6.4	13.4	12.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	642	1593	-	-	1566	-	-	724
HCM Lane V/C Ratio	0.335	0.038	-	-	0.014	-	-	0.351
HCM Control Delay (s)	13.4	7.3	0	-	7.3	0	-	12.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	1.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	168	514	35	31	652	166	108	101	111
v/c Ratio	0.46	0.27	0.04	0.14	0.59	0.28	0.31	0.36	0.30
Control Delay	25.8	8.9	2.1	28.2	18.7	5.2	22.4	25.6	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	8.9	2.1	28.2	18.7	5.2	22.4	25.6	18.2
Queue Length 50th (ft)	47	30	0	9	87	2	27	28	21
Queue Length 95th (ft)	123	108	9	38	178	41	80	82	71
Internal Link Dist (ft)		2540			1252		326		432
Turn Bay Length (ft)	310		300	315		155		200	
Base Capacity (vph)	876	2547	1153	876	2547	1179	1263	1043	1273
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.20	0.03	0.04	0.26	0.14	0.09	0.10	0.09

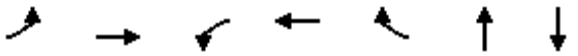
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	483	33	29	613	156	13	71	17	95	59	45
Future Volume (veh/h)	158	483	33	29	613	156	13	71	17	95	59	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	168	514	35	31	652	166	14	76	18	101	63	48
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	225	1505	671	64	1184	528	133	170	38	413	134	102
Arrive On Green	0.13	0.44	0.44	0.04	0.34	0.34	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	122	1214	267	1261	954	727
Grp Volume(v), veh/h	168	514	35	31	652	166	108	0	0	101	0	111
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1604	0	0	1261	0	1680
Q Serve(g_s), s	3.3	3.5	0.5	0.6	5.4	2.8	0.1	0.0	0.0	0.0	0.0	2.1
Cycle Q Clear(g_c), s	3.3	3.5	0.5	0.6	5.4	2.8	2.3	0.0	0.0	1.9	0.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	0.13		0.17	1.00		0.43
Lane Grp Cap(c), veh/h	225	1505	671	64	1184	528	341	0	0	413	0	236
V/C Ratio(X)	0.75	0.34	0.05	0.48	0.55	0.31	0.32	0.00	0.00	0.24	0.00	0.47
Avail Cap(c_a), veh/h	1328	3876	1729	1328	3876	1729	2004	0	0	1674	0	1917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	6.5	5.7	16.6	9.3	8.5	13.8	0.0	0.0	13.8	0.0	13.9
Incr Delay (d2), s/veh	4.9	0.1	0.0	5.5	0.4	0.3	0.5	0.0	0.0	0.3	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.5	0.1	0.3	1.0	0.5	0.7	0.0	0.0	0.6	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	6.7	5.7	22.1	9.7	8.8	14.3	0.0	0.0	14.1	0.0	15.3
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	B
Approach Vol, veh/h		717			849			108			212	
Approach Delay, s/veh		9.6			10.0			14.3			14.7	
Approach LOS		A			A			B			B	

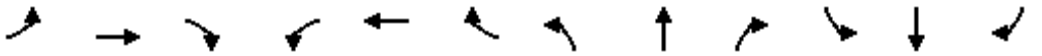
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	19.8		9.4	9.1	16.6		9.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.6	5.5		4.1	5.3	7.4		4.3				
Green Ext Time (p_c), s	0.0	3.2		1.0	0.4	4.7		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		10.6	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	95	426	171	466	189	328	259
v/c Ratio	0.38	0.51	0.55	0.41	0.30	0.62	0.67
Control Delay	41.4	29.0	40.4	24.8	5.4	28.3	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	29.0	40.4	24.8	5.4	28.3	32.8
Queue Length 50th (ft)	43	90	77	96	0	124	101
Queue Length 95th (ft)	99	153	153	157	32	223	193
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	418	1430	638	1894	930	819	603
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.30	0.27	0.25	0.20	0.40	0.43

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	289	52	137	373	151	42	149	71	88	77	42
Future Volume (veh/h)	76	289	52	137	373	151	42	149	71	88	77	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	95	361	65	171	466	189	52	186	89	110	96	52
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	222	802	143	261	1024	457	116	292	127	215	175	78
Arrive On Green	0.13	0.28	0.28	0.15	0.30	0.30	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1711	2894	516	1711	3413	1522	175	1042	455	472	625	277
Grp Volume(v), veh/h	95	211	215	171	466	189	327	0	0	258	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1703	1711	1706	1522	1672	0	0	1374	0	0
Q Serve(g_s), s	3.2	6.3	6.5	5.8	6.9	6.2	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.2	6.3	6.5	5.8	6.9	6.2	10.4	0.0	0.0	10.1	0.0	0.0
Prop In Lane	1.00		0.30	1.00		1.00	0.16		0.27	0.43		0.20
Lane Grp Cap(c), veh/h	222	473	472	261	1024	457	535	0	0	467	0	0
V/C Ratio(X)	0.43	0.45	0.45	0.65	0.45	0.41	0.61	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	524	908	906	800	2365	1055	1115	0	0	959	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.9	18.5	18.5	24.7	17.6	17.3	19.9	0.0	0.0	19.4	0.0	0.0
Incr Delay (d2), s/veh	1.3	2.4	2.5	2.8	1.1	2.2	4.1	0.0	0.0	3.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.4	2.4	2.2	2.3	2.0	4.3	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	20.9	21.0	27.5	18.7	19.5	23.9	0.0	0.0	23.1	0.0	0.0
LnGrp LOS	C	C	C	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		521			826			327			258	
Approach Delay, s/veh		21.9			20.7			23.9			23.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.5	24.2		24.4	12.1	25.6		24.4				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	7.8	8.5		12.4	5.2	8.9		12.1				
Green Ext Time (p_c), s	0.4	5.5		4.9	0.2	9.8		3.9				

Intersection Summary			
HCM 6th Ctrl Delay		21.9	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	23	0	2	0
Future Vol, veh/h	0	11	23	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	26	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	20	43	0	8	0

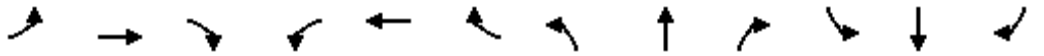
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	43	0	-	0	63	43
Stage 1	-	-	-	-	43	-
Stage 2	-	-	-	-	20	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1398	-	-	-	875	951
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	933	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1398	-	-	-	875	951
Mov Cap-2 Maneuver	-	-	-	-	875	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	933	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1398	-	-	-	875
HCM Lane V/C Ratio	-	-	-	-	0.009
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	148	426	4	820	251	10	14	89	69
v/c Ratio	0.51	0.22	0.03	0.68	0.47	0.07	0.09	0.38	0.20
Control Delay	37.5	8.9	38.2	23.3	22.2	38.0	37.9	37.2	28.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	8.9	38.2	23.3	22.2	38.0	37.9	37.2	28.1
Queue Length 50th (ft)	61	41	2	162	85	4	6	37	23
Queue Length 95th (ft)	143	103	13	261	172	21	27	93	76
Internal Link Dist (ft)		1213		1278			262		404
Turn Bay Length (ft)	300		300		200	200		300	
Base Capacity (vph)	394	2408	394	2414	1080	394	538	394	481
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.18	0.01	0.34	0.23	0.03	0.03	0.23	0.14

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	375	8	4	738	226	9	11	2	80	5	57
Future Volume (veh/h)	133	375	8	4	738	226	9	11	2	80	5	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	148	417	9	4	820	251	10	12	2	89	6	63
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	190	1608	35	9	1245	555	22	143	24	118	20	213
Arrive On Green	0.11	0.48	0.48	0.01	0.37	0.37	0.01	0.10	0.10	0.07	0.15	0.15
Sat Flow, veh/h	1682	3359	72	1682	3357	1497	1682	1476	246	1682	132	1385
Grp Volume(v), veh/h	148	208	218	4	820	251	10	0	14	89	0	69
Grp Sat Flow(s),veh/h/ln	1682	1678	1754	1682	1678	1497	1682	0	1722	1682	0	1517
Q Serve(g_s), s	4.4	3.8	3.8	0.1	10.5	6.5	0.3	0.0	0.4	2.7	0.0	2.1
Cycle Q Clear(g_c), s	4.4	3.8	3.8	0.1	10.5	6.5	0.3	0.0	0.4	2.7	0.0	2.1
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.14	1.00		0.91
Lane Grp Cap(c), veh/h	190	803	839	9	1245	555	22	0	167	118	0	233
V/C Ratio(X)	0.78	0.26	0.26	0.44	0.66	0.45	0.46	0.00	0.08	0.76	0.00	0.30
Avail Cap(c_a), veh/h	506	1644	1717	506	3287	1466	506	0	685	506	0	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	8.0	8.0	25.6	13.5	12.3	25.3	0.0	21.2	23.6	0.0	19.3
Incr Delay (d2), s/veh	6.7	0.2	0.2	30.1	0.6	0.6	14.3	0.0	0.2	9.5	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.9	0.9	0.1	2.8	1.9	0.2	0.0	0.2	1.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	8.2	8.2	55.6	14.1	12.8	39.6	0.0	21.4	33.0	0.0	20.0
LnGrp LOS	C	A	A	E	B	B	D	A	C	C	A	C
Approach Vol, veh/h		574			1075			24			158	
Approach Delay, s/veh		13.5			14.0			29.0			27.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	29.2	5.2	12.4	10.3	23.6	8.1	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.1	5.8	2.3	4.1	6.4	12.5	4.7	2.4
Green Ext Time (p_c), s	0.0	2.2	0.0	0.3	0.2	6.6	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	68	37	56	112	4	21	31	19	2	58	8
Future Vol, veh/h	5	68	37	56	112	4	21	31	19	2	58	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	94	51	78	156	6	29	43	26	3	81	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	10	8.8	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	5%	33%	3%
Vol Thru, %	44%	62%	65%	85%
Vol Right, %	27%	34%	2%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	110	172	68
LT Vol	21	5	56	2
Through Vol	31	68	112	58
RT Vol	19	37	4	8
Lane Flow Rate	99	153	239	94
Geometry Grp	1	1	1	1
Degree of Util (X)	0.137	0.196	0.315	0.132
Departure Headway (Hd)	4.987	4.615	4.748	5.029
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	716	775	755	709
Service Time	3.041	2.662	2.793	3.084
HCM Lane V/C Ratio	0.138	0.197	0.317	0.133
HCM Control Delay	8.8	8.8	10	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.7	1.4	0.5

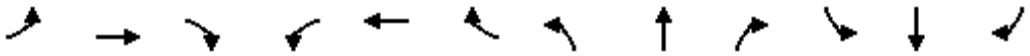
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	11	0	0	0	22	79	0	0	156	0
Future Vol, veh/h	1	0	11	0	0	0	22	79	0	0	156	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	0	17	0	0	0	34	122	0	0	240	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	430	430	240	439	430	122	240	0	0	-	-	0
Stage 1	240	240	-	190	190	-	-	-	-	-	-	-
Stage 2	190	190	-	249	240	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	-	-	-
Pot Cap-1 Maneuver	525	509	784	518	509	913	1292	-	-	0	-	-
Stage 1	750	696	-	798	732	-	-	-	-	0	-	-
Stage 2	798	732	-	742	696	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	514	495	784	496	495	913	1292	-	-	-	-	-
Mov Cap-2 Maneuver	514	495	-	496	495	-	-	-	-	-	-	-
Stage 1	729	696	-	776	712	-	-	-	-	-	-	-
Stage 2	776	712	-	726	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	0	1.7	0
HCM LOS	A	A		

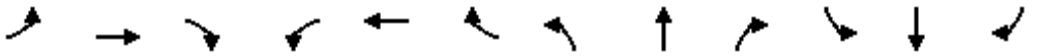
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1292	-	-	751	-	-	-
HCM Lane V/C Ratio	0.026	-	-	0.025	-	-	-
HCM Control Delay (s)	7.9	0	-	9.9	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	70	334	196	126	710	56	391	239	72	64	210	32
v/c Ratio	0.36	0.40	0.52	0.52	0.67	0.12	0.91	0.23	0.15	0.34	0.46	0.16
Control Delay	41.4	26.8	31.9	42.2	28.8	22.7	59.9	25.8	27.7	41.3	37.2	35.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	26.8	31.9	42.2	28.8	22.7	59.9	25.8	27.7	41.3	37.2	35.8
Queue Length 50th (ft)	33	72	83	58	166	21	189	48	27	30	51	14
Queue Length 95th (ft)	82	121	161	130	255	53	#468	101	76	78	99	45
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	341	1699	760	341	1699	760	430	1290	577	430	1258	563
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.20	0.26	0.37	0.42	0.07	0.91	0.19	0.12	0.15	0.17	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	301	176	113	639	50	352	215	65	58	189	29
Future Volume (veh/h)	63	301	176	113	639	50	352	215	65	58	189	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	70	334	196	126	710	56	391	239	72	64	210	32
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	98	871	388	163	1000	446	445	1080	482	94	379	169
Arrive On Green	0.06	0.25	0.25	0.09	0.29	0.29	0.26	0.31	0.31	0.05	0.11	0.11
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	70	334	196	126	710	56	391	239	72	64	210	32
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	2.5	5.0	6.7	4.4	11.4	1.7	13.4	3.2	2.1	2.2	3.6	1.2
Cycle Q Clear(g_c), s	2.5	5.0	6.7	4.4	11.4	1.7	13.4	3.2	2.1	2.2	3.6	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	871	388	163	1000	446	445	1080	482	94	379	169
V/C Ratio(X)	0.71	0.38	0.50	0.77	0.71	0.13	0.88	0.22	0.15	0.68	0.55	0.19
Avail Cap(c_a), veh/h	434	2153	960	434	2153	960	547	1594	711	547	1594	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	19.3	19.9	27.5	19.8	16.3	22.2	15.8	15.4	28.8	26.2	25.1
Incr Delay (d2), s/veh	9.2	0.3	1.0	7.6	0.9	0.1	13.1	0.1	0.1	8.5	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.7	2.2	1.9	3.8	0.5	6.3	1.1	0.6	1.1	1.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	19.5	20.9	35.0	20.7	16.4	35.3	15.9	15.6	37.3	27.5	25.7
LnGrp LOS	D	B	C	D	C	B	D	B	B	D	C	C
Approach Vol, veh/h		600			892			702			306	
Approach Delay, s/veh		22.1			22.5			26.7			29.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	20.1	20.4	11.3	8.0	22.4	7.8	23.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	6.4	8.7	15.4	5.6	4.5	13.4	4.2	5.2
Green Ext Time (p_c), s	0.2	2.5	0.5	1.2	0.1	4.5	0.1	1.5

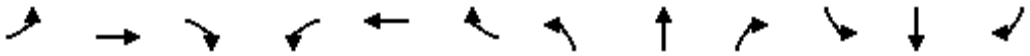
Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	42.6
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	24	138	22	118	62	509	73	79	428	26
Future Vol, veh/h	5	2	24	138	22	118	62	509	73	79	428	26
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	6	3	31	177	28	151	79	653	94	101	549	33
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.8	21.3	58.2	36.6
HCM LOS	B	C	F	E

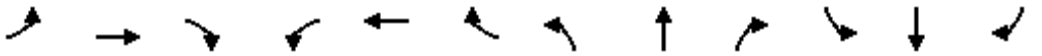
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	16%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	70%	6%	0%	16%	0%	100%	85%
Vol Right, %	0%	0%	30%	77%	0%	84%	0%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	339	243	31	138	140	79	285	169
LT Vol	62	0	0	5	138	0	79	0	0
Through Vol	0	339	170	2	0	22	0	285	143
RT Vol	0	0	73	24	0	118	0	0	26
Lane Flow Rate	79	435	311	40	177	179	101	366	216
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.202	1.045	0.729	0.116	0.502	0.454	0.261	0.891	0.52
Departure Headway (Hd)	9.165	8.649	8.431	10.717	10.404	9.291	9.444	8.927	8.816
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	394	422	432	337	349	389	383	410	411
Service Time	6.865	6.349	6.131	8.417	8.104	6.991	7.144	6.627	6.516
HCM Lane V/C Ratio	0.201	1.031	0.72	0.119	0.507	0.46	0.264	0.893	0.526
HCM Control Delay	14.2	86	30.7	14.8	23.1	19.5	15.4	51.8	20.7
HCM Lane LOS	B	F	D	B	C	C	C	F	C
HCM 95th-tile Q	0.7	14	5.8	0.4	2.7	2.3	1	9.2	2.9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	52	2	49	247	33	7	217	688	53	2	561	143
v/c Ratio	0.38	0.01	0.31	0.64	0.07	0.02	0.63	0.42	0.07	0.02	0.67	0.38
Control Delay	45.0	33.5	39.2	37.9	24.4	24.2	39.9	15.0	13.0	38.5	31.2	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	33.5	39.2	37.9	24.4	24.2	39.9	15.0	13.0	38.5	31.2	28.2
Queue Length 50th (ft)	24	1	22	108	12	3	97	104	13	1	130	58
Queue Length 95th (ft)	60	7	53	192	33	12	#175	174	37	8	172	102
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	141	817	694	397	1086	923	352	2005	897	112	1525	682
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.00	0.07	0.62	0.03	0.01	0.62	0.34	0.06	0.02	0.37	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	2	41	205	27	6	180	571	44	2	466	119
Future Volume (veh/h)	43	2	41	205	27	6	180	571	44	2	466	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	52	2	49	247	33	7	217	688	53	2	561	143
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	87	167	141	308	399	338	273	1415	631	5	879	392
Arrive On Green	0.05	0.09	0.09	0.18	0.22	0.22	0.16	0.40	0.40	0.00	0.25	0.25
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	52	2	49	247	33	7	217	688	53	2	561	143
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	1.6	0.1	1.6	7.5	0.8	0.2	6.6	8.0	1.2	0.1	7.9	4.2
Cycle Q Clear(g_c), s	1.6	0.1	1.6	7.5	0.8	0.2	6.6	8.0	1.2	0.1	7.9	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	167	141	308	399	338	273	1415	631	5	879	392
V/C Ratio(X)	0.60	0.01	0.35	0.80	0.08	0.02	0.79	0.49	0.08	0.42	0.64	0.36
Avail Cap(c_a), veh/h	200	1155	979	563	1536	1302	499	2836	1265	159	2157	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	22.8	23.5	21.8	17.2	17.0	22.4	12.2	10.1	27.4	18.4	17.0
Incr Delay (d2), s/veh	6.3	0.0	1.4	4.9	0.1	0.0	5.2	0.3	0.1	48.9	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.6	3.2	0.3	0.1	2.8	2.5	0.3	0.1	2.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	22.8	25.0	26.7	17.3	17.0	27.6	12.4	10.2	76.3	19.2	17.6
LnGrp LOS	C	C	C	C	B	B	C	B	B	E	B	B
Approach Vol, veh/h		103			287			958			706	
Approach Delay, s/veh		28.5			25.4			15.8			19.0	
Approach LOS		C			C			B			B	

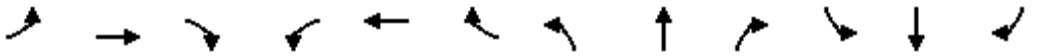
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	9.5	13.1	18.4	7.2	16.4	4.7	26.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	9.5	3.6	8.6	9.9	3.6	2.8	2.1	10.0
Green Ext Time (p_c), s	0.5	0.1	0.3	4.0	0.0	0.2	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	69	463	98	449	139	261	847	119	89	693	157
v/c Ratio	0.55	0.38	0.76	0.36	0.22	0.92	0.68	0.19	0.61	0.78	0.39
Control Delay	68.0	17.5	86.5	29.3	5.8	84.3	34.4	5.8	68.9	45.0	37.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	17.5	86.5	29.3	5.8	84.3	34.4	5.8	68.9	45.0	37.0
Queue Length 50th (ft)	48	73	70	129	0	187	284	2	62	244	94
Queue Length 95th (ft)	94	112	#152	175	36	#331	317	33	113	280	140
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	139	1212	130	1242	644	283	1378	685	162	1135	508
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.38	0.75	0.36	0.22	0.92	0.61	0.17	0.55	0.61	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	205	179	81	373	115	217	703	99	74	575	130
Future Volume (veh/h)	57	205	179	81	373	115	217	703	99	74	575	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	69	247	216	98	449	139	261	847	119	89	693	157
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	88	627	527	122	1285	573	289	1208	539	112	856	382
Arrive On Green	0.05	0.35	0.35	0.07	0.37	0.37	0.17	0.35	0.35	0.06	0.25	0.25
Sat Flow, veh/h	1739	1788	1502	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	69	239	224	98	449	139	261	847	119	89	693	157
Grp Sat Flow(s),veh/h/ln	1739	1735	1556	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	4.2	11.3	11.8	6.0	10.1	6.7	16.0	22.8	5.9	5.5	20.4	9.2
Cycle Q Clear(g_c), s	4.2	11.3	11.8	6.0	10.1	6.7	16.0	22.8	5.9	5.5	20.4	9.2
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	609	546	122	1285	573	289	1208	539	112	856	382
V/C Ratio(X)	0.78	0.39	0.41	0.80	0.35	0.24	0.90	0.70	0.22	0.79	0.81	0.41
Avail Cap(c_a), veh/h	146	609	546	136	1285	573	297	1438	641	170	1185	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	26.5	26.7	49.6	24.7	23.6	44.3	30.4	24.9	49.9	38.4	34.2
Incr Delay (d2), s/veh	13.9	1.9	2.3	25.9	0.8	1.0	28.5	1.2	0.2	13.5	3.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.6	4.4	3.4	4.0	2.5	9.0	9.3	2.1	2.7	8.7	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.8	28.4	28.9	75.6	25.4	24.6	72.9	31.7	25.1	63.4	41.4	34.9
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	C
Approach Vol, veh/h		532			686			1227			939	
Approach Delay, s/veh		33.3			32.4			39.8			42.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	42.5	22.5	31.2	10.0	44.6	11.5	42.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	8.0	13.8	18.0	22.4	6.2	12.1	7.5	24.8
Green Ext Time (p_c), s	0.0	2.4	0.0	4.4	0.0	3.0	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	38.0
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	86	76	1265	33	692
v/c Ratio	0.23	0.19	0.75	0.11	0.29
Control Delay	40.3	9.6	27.8	43.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	9.6	27.8	43.3	7.0
Queue Length 50th (ft)	55	0	401	22	93
Queue Length 95th (ft)	88	29	394	45	101
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	376	395	1682	290	2398
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	0.19	0.75	0.11	0.29

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	68	60	966	33	26	547
Future Volume (veh/h)	68	60	966	33	26	547
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	86	76	1223	42	33	692
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1683	58	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3485	116	1725	3532
Grp Volume(v), veh/h	86	76	620	645	33	692
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1790	1725	1721
Q Serve(g_s), s	4.9	4.9	34.1	34.1	1.9	8.9
Cycle Q Clear(g_c), s	4.9	4.9	34.1	34.1	1.9	8.9
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	381	339	853	888	295	2423
V/C Ratio(X)	0.23	0.22	0.73	0.73	0.11	0.29
Avail Cap(c_a), veh/h	381	339	853	888	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	38.3	23.8	23.8	42.1	6.6
Incr Delay (d2), s/veh	1.4	1.5	3.1	3.0	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	14.2	14.8	0.9	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.7	39.9	27.0	26.9	42.8	6.9
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	162		1265			725
Approach Delay, s/veh	39.8		26.9			8.5
Approach LOS	D		C			A

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		89.0		31.0	25.0	64.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		84.5		26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s		10.9		6.9	3.9	36.1
Green Ext Time (p_c), s		5.8		0.4	0.0	9.7

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	30.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	451	13	84	853	0	71	0	83	0	0	0
Future Vol, veh/h	0	451	13	84	853	0	71	0	83	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	513	15	95	969	0	81	0	94	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	969	0	0	528	0	0	1680	1680	521	1727	1687	969
Stage 1	-	-	-	-	-	-	521	521	-	1159	1159	-
Stage 2	-	-	-	-	-	-	1159	1159	-	568	528	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	711	-	-	1039	-	-	~ 75	95	555	70	94	308
Stage 1	-	-	-	-	-	-	539	532	-	238	270	-
Stage 2	-	-	-	-	-	-	238	270	-	508	528	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	711	-	-	1039	-	-	~ 64	76	555	49	75	308
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 64	76	-	49	75	-
Stage 1	-	-	-	-	-	-	539	532	-	238	217	-
Stage 2	-	-	-	-	-	-	191	217	-	422	528	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	$ 301.4	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	122	711	-	-	1039	-	-	-
HCM Lane V/C Ratio	1.434	-	-	-	0.092	-	-	-
HCM Control Delay (s)	$ 301.4	0	-	-	8.8	0	-	0
HCM Lane LOS	F	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	12.1	0	-	-	0.3	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	117	5	42	221	9	10	10	44	26	6	15
Future Vol, veh/h	10	117	5	42	221	9	10	10	44	26	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	158	7	57	299	12	14	14	59	35	8	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	311	0	0	165	0	0	623	615	162	645	612	305
Stage 1	-	-	-	-	-	-	190	190	-	419	419	-
Stage 2	-	-	-	-	-	-	433	425	-	226	193	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1255	-	-	1419	-	-	400	408	885	387	409	737
Stage 1	-	-	-	-	-	-	814	745	-	614	592	-
Stage 2	-	-	-	-	-	-	603	588	-	779	743	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1255	-	-	1419	-	-	368	387	885	338	388	737
Mov Cap-2 Maneuver	-	-	-	-	-	-	368	387	-	338	388	-
Stage 1	-	-	-	-	-	-	805	737	-	607	568	-
Stage 2	-	-	-	-	-	-	555	564	-	705	735	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.2	11.3	15.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	368	715	1255	-	-	1419	-	-	417
HCM Lane V/C Ratio	0.037	0.102	0.011	-	-	0.04	-	-	0.152
HCM Control Delay (s)	15.2	10.6	7.9	-	-	7.6	-	-	15.2
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.3	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	46	17	54	103	1	29	1	24	0	0	0
Future Vol, veh/h	0	46	17	54	103	1	29	1	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	55	20	64	123	1	35	1	29	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	124	0	0	75	0	0	317	317	65	332	327	124
Stage 1	-	-	-	-	-	-	65	65	-	252	252	-
Stage 2	-	-	-	-	-	-	252	252	-	80	75	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1463	-	-	1524	-	-	636	599	999	621	591	927
Stage 1	-	-	-	-	-	-	946	841	-	752	698	-
Stage 2	-	-	-	-	-	-	752	698	-	929	833	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1463	-	-	1524	-	-	614	572	999	582	564	927
Mov Cap-2 Maneuver	-	-	-	-	-	-	614	572	-	582	564	-
Stage 1	-	-	-	-	-	-	946	841	-	752	667	-
Stage 2	-	-	-	-	-	-	718	667	-	901	833	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.6	10.3	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	740	1463	-	-	1524	-	-	-
HCM Lane V/C Ratio	0.087	-	-	-	0.042	-	-	-
HCM Control Delay (s)	10.3	0	-	-	7.5	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	-

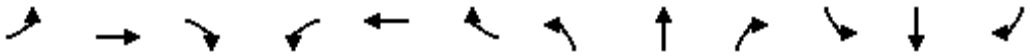
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	18	0	8	0	51	7	3	73	0
Future Vol, veh/h	0	0	0	18	0	8	0	51	7	3	73	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	23	0	10	0	64	9	4	91	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	173	172	91	168	168	69	91	0	0	73	0	0
Stage 1	99	99	-	69	69	-	-	-	-	-	-	-
Stage 2	74	73	-	99	99	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	788	719	964	794	723	991	1498	-	-	1520	-	-
Stage 1	905	811	-	939	835	-	-	-	-	-	-	-
Stage 2	933	832	-	905	811	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	779	717	964	792	721	991	1498	-	-	1520	-	-
Mov Cap-2 Maneuver	779	717	-	792	721	-	-	-	-	-	-	-
Stage 1	905	809	-	939	835	-	-	-	-	-	-	-
Stage 2	924	832	-	902	809	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.4	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1498	-	-	-	844	1520	-	-
HCM Lane V/C Ratio	-	-	-	-	0.039	0.002	-	-
HCM Control Delay (s)	0	-	-	0	9.4	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-

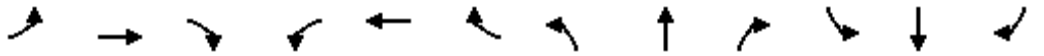


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	180	403	104	238	830	218	175	319	189	229	414	182
v/c Ratio	0.94	0.62	0.16	0.90	1.14	0.30	1.52	0.78	0.38	1.11	0.43	0.33
Control Delay	100.6	35.9	2.8	82.2	111.2	8.9	307.8	54.5	7.1	140.0	34.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.6	35.9	2.8	82.2	111.2	8.9	307.8	54.5	7.1	140.0	34.3	5.9
Queue Length 50th (ft)	128	233	0	167	~682	25	~172	214	0	~184	127	0
Queue Length 95th (ft)	#241	321	10	#284	#849	62	#288	264	33	#311	147	31
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	192	653	643	265	729	717	115	575	619	207	1276	687
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.62	0.16	0.90	1.14	0.30	1.52	0.55	0.31	1.11	0.32	0.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	318	82	188	656	172	138	252	149	181	327	144
Future Volume (veh/h)	142	318	82	188	656	172	138	252	149	181	327	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	403	104	238	830	218	175	319	189	229	414	182
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	677	574	267	749	634	119	376	319	213	903	403
Arrive On Green	0.11	0.36	0.36	0.15	0.40	0.40	0.07	0.20	0.20	0.12	0.25	0.25
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	180	403	104	238	830	218	175	319	189	229	414	182
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	10.8	18.9	4.8	14.1	43.1	10.3	7.2	17.7	11.6	12.9	10.6	10.4
Cycle Q Clear(g_c), s	10.8	18.9	4.8	14.1	43.1	10.3	7.2	17.7	11.6	12.9	10.6	10.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	677	574	267	749	634	119	376	319	213	903	403
V/C Ratio(X)	0.91	0.60	0.18	0.89	1.11	0.34	1.47	0.85	0.59	1.07	0.46	0.45
Avail Cap(c_a), veh/h	199	677	574	273	749	634	119	591	501	213	1310	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	27.9	23.5	44.9	32.3	22.5	50.2	41.4	39.0	47.4	33.9	33.8
Incr Delay (d2), s/veh	39.0	3.8	0.7	28.2	66.8	1.5	251.0	6.7	1.8	82.3	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	8.5	1.8	8.0	31.3	3.9	11.4	8.5	4.5	10.4	4.4	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.3	31.8	24.2	73.1	99.1	23.9	301.2	48.1	40.7	129.7	34.3	34.6
LnGrp LOS	F	C	C	E	F	C	F	D	D	F	C	C
Approach Vol, veh/h		687			1286			683			825	
Approach Delay, s/veh		44.9			81.6			110.9			60.8	
Approach LOS		D			F			F			E	

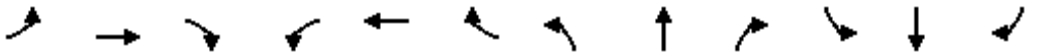
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	43.5	11.7	31.9	16.5	47.6	17.4	26.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	16.1	20.9	9.2	12.6	12.8	45.1	14.9	19.7
Green Ext Time (p_c), s	0.0	2.2	0.0	3.1	0.0	0.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	75.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	74	446	284	273	187	441	135	51	744
v/c Ratio	0.54	0.77	0.87	0.35	0.89	0.73	0.22	0.60	0.89
Control Delay	67.9	39.4	72.8	23.7	91.2	44.7	6.0	84.0	57.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.9	39.4	72.8	23.7	91.2	44.7	6.0	84.0	57.6
Queue Length 50th (ft)	56	252	213	136	145	311	0	39	292
Queue Length 95th (ft)	102	356	#324	195	#262	412	40	#92	#370
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	154	579	354	788	212	607	607	85	833
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.77	0.80	0.35	0.88	0.73	0.22	0.60	0.89

Intersection Summary

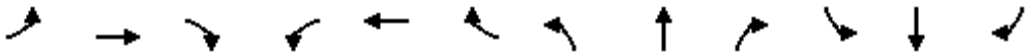
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	118	266	244	183	52	161	379	116	44	568	72
Future Volume (veh/h)	64	118	266	244	183	52	161	379	116	44	568	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	137	309	284	213	60	187	441	135	51	660	84
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	158	357	313	607	171	214	604	512	66	761	97
Arrive On Green	0.05	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	511	1152	1781	1404	395	1781	1870	1585	1781	3171	403
Grp Volume(v), veh/h	74	0	446	284	0	273	187	441	135	51	369	375
Grp Sat Flow(s),veh/h/ln	1781	0	1663	1781	0	1799	1781	1870	1585	1781	1777	1798
Q Serve(g_s), s	4.8	0.0	29.5	18.3	0.0	11.8	12.0	24.4	7.4	3.3	23.3	23.4
Cycle Q Clear(g_c), s	4.8	0.0	29.5	18.3	0.0	11.8	12.0	24.4	7.4	3.3	23.3	23.4
Prop In Lane	1.00		0.69	1.00		0.22	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	95	0	516	313	0	778	214	604	512	66	426	431
V/C Ratio(X)	0.78	0.00	0.86	0.91	0.00	0.35	0.87	0.73	0.26	0.78	0.87	0.87
Avail Cap(c_a), veh/h	157	0	516	360	0	778	217	604	512	87	426	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	0.0	38.0	47.2	0.0	22.1	50.5	35.0	29.2	55.7	42.6	42.6
Incr Delay (d2), s/veh	13.0	0.0	17.4	23.9	0.0	1.2	30.0	7.6	1.3	26.6	20.5	20.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	13.9	9.9	0.0	5.0	7.0	11.9	2.9	1.9	12.3	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	0.0	55.3	71.1	0.0	23.4	80.5	42.6	30.5	82.4	63.1	63.1
LnGrp LOS	E	A	E	E	A	C	F	D	C	F	E	E
Approach Vol, veh/h		520			557			763			795	
Approach Delay, s/veh		57.1			47.7			49.7			64.3	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	40.7	18.5	32.5	10.7	55.0	8.8	42.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	20.3	31.5	14.0	25.4	6.8	13.8	5.3	26.4
Green Ext Time (p_c), s	0.3	1.1	0.0	1.1	0.0	1.5	0.0	2.1

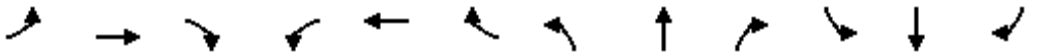
Intersection Summary	
HCM 6th Ctrl Delay	55.2
HCM 6th LOS	E



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	56	287	50	188	341	183	255	570	183	362	859	110
v/c Ratio	0.50	0.29	0.09	0.78	0.26	0.26	0.83	0.72	0.40	0.89	0.87	0.25
Control Delay	82.5	42.8	0.3	81.5	33.8	5.6	78.8	56.3	15.3	76.3	58.3	41.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.5	42.8	0.3	81.5	33.8	5.6	78.8	56.3	15.3	76.3	58.3	41.4
Queue Length 50th (ft)	53	116	0	175	126	0	237	266	31	332	406	81
Queue Length 95th (ft)	99	158	0	253	164	47	325	316	90	#462	469	131
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	128	985	543	291	1312	702	369	933	521	473	1141	510
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.29	0.09	0.65	0.26	0.26	0.69	0.61	0.35	0.77	0.75	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	247	43	162	293	157	219	490	157	311	739	95
Future Volume (veh/h)	48	247	43	162	293	157	219	490	157	311	739	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	287	50	188	341	183	255	570	183	362	859	110
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	1070	477	215	1356	605	284	780	348	392	996	444
Arrive On Green	0.04	0.30	0.30	0.12	0.38	0.38	0.16	0.22	0.22	0.22	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	56	287	50	188	341	183	255	570	183	362	859	110
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.0	8.0	3.0	13.5	8.5	10.5	18.3	19.4	13.2	25.9	29.8	7.0
Cycle Q Clear(g_c), s	4.0	8.0	3.0	13.5	8.5	10.5	18.3	19.4	13.2	25.9	29.8	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	72	1070	477	215	1356	605	284	780	348	392	996	444
V/C Ratio(X)	0.78	0.27	0.10	0.87	0.25	0.30	0.90	0.73	0.53	0.92	0.86	0.25
Avail Cap(c_a), veh/h	136	1070	477	308	1356	605	390	984	439	500	1203	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	34.5	32.8	56.2	27.5	28.1	53.6	47.2	44.8	49.6	44.4	36.2
Incr Delay (d2), s/veh	16.1	0.6	0.4	17.1	0.4	1.3	18.3	2.1	1.2	20.0	5.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.4	1.2	6.8	3.5	4.1	9.4	8.6	5.2	13.4	13.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	35.2	33.2	73.3	27.9	29.4	72.0	49.2	46.0	69.6	50.1	36.5
LnGrp LOS	E	D	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		393			712			1008			1331	
Approach Delay, s/veh		41.0			40.3			54.4			54.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	43.6	25.2	40.9	9.8	54.1	33.1	33.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	37.0	28.5	44.0	9.9	49.6	36.5	36.0
Max Q Clear Time (g_c+I1), s	15.5	10.0	20.3	31.8	6.0	12.5	27.9	21.4
Green Ext Time (p_c), s	0.3	1.7	0.4	4.6	0.0	2.6	0.7	3.6

Intersection Summary	
HCM 6th Ctrl Delay	49.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	78	2	0	151
Future Vol, veh/h	5	1	78	2	0	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	8	2	120	3	0	232

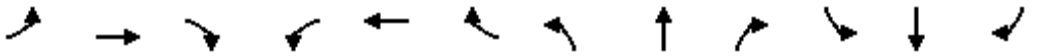
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	354	122	0	0	123	0
Stage 1	122	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	632	913	-	-	1428	-
Stage 1	889	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	632	913	-	-	1428	-
Mov Cap-2 Maneuver	632	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	666	1428	-
HCM Lane V/C Ratio	-	-	0.014	-	-
HCM Control Delay (s)	-	-	10.5	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	42	882	82	895	57
v/c Ratio	0.13	0.46	0.51	0.39	0.16
Control Delay	13.0	14.4	58.7	6.8	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	14.4	58.7	6.8	12.2
Queue Length 50th (ft)	13	182	57	115	1
Queue Length 95th (ft)	35	256	108	145	37
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	319	1908	288	2620	353
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.13	0.46	0.28	0.34	0.16

Intersection Summary



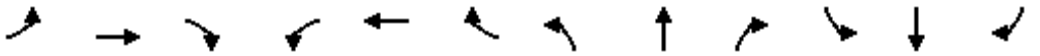
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	809	3	75	823	0	11	0	41	0	0	0
Future Volume (veh/h)	39	809	3	75	823	0	11	0	41	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	42	879	3	82	895	0	12	0	45			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	408	2011	7	103	2311	0	66	0	247			
Arrive On Green	0.60	0.60	0.60	0.06	0.71	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	573	3345	11	1640	3358	0	315	0	1180			
Grp Volume(v), veh/h	42	430	452	82	895	0	57	0	0			
Grp Sat Flow(s),veh/h/ln	573	1636	1720	1640	1636	0	1494	0	0			
Q Serve(g_s), s	3.4	15.2	15.2	5.3	11.9	0.0	3.4	0.0	0.0			
Cycle Q Clear(g_c), s	4.0	15.2	15.2	5.3	11.9	0.0	3.4	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.21		0.79			
Lane Grp Cap(c), veh/h	408	984	1034	103	2311	0	313	0	0			
V/C Ratio(X)	0.10	0.44	0.44	0.79	0.39	0.00	0.18	0.00	0.00			
Avail Cap(c_a), veh/h	408	984	1034	298	2700	0	313	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.5	11.6	11.6	49.6	6.4	0.0	34.8	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.4	1.3	12.7	0.1	0.0	1.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.0	5.2	2.4	2.9	0.0	1.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	13.0	12.9	62.3	6.5	0.0	36.1	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		924			977			57				
Approach Delay, s/veh		12.8			11.2			36.1				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.3	69.0				80.3		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	7.3	17.2				13.9		5.4				
Green Ext Time (p_c), s	0.1	6.0				6.5		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	89	255	49	835	114	91	564
v/c Ratio	0.17	0.59	0.23	0.64	0.20	0.36	0.38
Control Delay	21.3	29.0	34.8	20.7	17.1	34.4	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	29.0	34.8	20.7	17.1	34.4	14.7
Queue Length 50th (ft)	27	90	19	147	31	35	85
Queue Length 95th (ft)	71	195	57	246	76	89	147
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	793	660	485	3000	1342	543	3053
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.39	0.10	0.28	0.08	0.17	0.18

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	61	17	86	60	78	43	735	100	80	496	0
Future Volume (veh/h)	1	61	17	86	60	78	43	735	100	80	496	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	1	69	19	98	68	89	49	835	114	91	564	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	84	315	86	220	121	122	88	1325	591	132	1412	0
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.39	0.39	0.08	0.41	0.00
Sat Flow, veh/h	5	1365	372	462	526	530	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	89	0	0	255	0	0	49	835	114	91	564	0
Grp Sat Flow(s),veh/h/ln	1742	0	0	1518	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	4.8	0.0	0.0	1.2	8.6	2.2	2.3	5.1	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	6.7	0.0	0.0	1.2	8.6	2.2	2.3	5.1	0.0
Prop In Lane	0.01		0.21	0.38		0.35	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	485	0	0	464	0	0	88	1325	591	132	1412	0
V/C Ratio(X)	0.18	0.00	0.00	0.55	0.00	0.00	0.55	0.63	0.19	0.69	0.40	0.00
Avail Cap(c_a), veh/h	1132	0	0	1014	0	0	649	4823	2151	727	4980	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	15.5	0.0	0.0	20.3	11.0	9.0	19.8	9.1	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.0	0.0	0.0	5.3	0.5	0.2	6.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.1	0.0	0.0	0.5	2.0	0.5	0.9	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	0.0	0.0	16.5	0.0	0.0	25.7	11.4	9.1	26.1	9.3	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	A	C	A	A
Approach Vol, veh/h		89			255			998			655	
Approach Delay, s/veh		13.9			16.5			11.9			11.6	
Approach LOS		B			B			B			B	

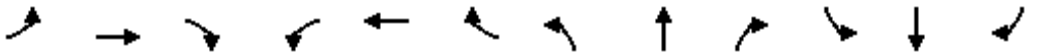
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	6.7	22.5		14.6	7.9	21.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	16.5	63.5		26.5	18.5	61.5				
Max Q Clear Time (g_c+I1), s		3.8	3.2	7.1		8.7	4.3	10.6				
Green Ext Time (p_c), s		0.4	0.1	3.6		1.4	0.1	6.3				

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	288	475	123	269	458	132	216	702	227	108	729
v/c Ratio	0.84	0.67	0.29	0.81	0.67	0.32	0.80	0.69	0.41	0.69	0.88
Control Delay	64.1	47.0	7.4	62.5	47.6	8.8	68.3	37.4	14.6	73.5	48.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	47.0	7.4	62.5	47.6	8.8	68.3	37.4	14.6	73.5	48.2
Queue Length 50th (ft)	210	180	0	197	175	0	160	240	48	82	246
Queue Length 95th (ft)	#340	246	43	#296	237	51	#276	311	118	#166	#347
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	409	714	425	409	687	414	311	1181	616	173	928
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.67	0.29	0.66	0.67	0.32	0.69	0.59	0.37	0.62	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	456	118	258	440	127	207	674	218	104	438	262
Future Volume (veh/h)	276	456	118	258	440	127	207	674	218	104	438	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	288	475	123	269	458	132	216	702	227	108	456	273
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	321	773	345	302	736	328	247	1085	484	133	517	308
Arrive On Green	0.19	0.23	0.23	0.18	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1990	1184
Grp Volume(v), veh/h	288	475	123	269	458	132	216	702	227	108	378	351
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	17.6	13.3	7.2	16.4	13.0	7.9	13.2	18.8	12.7	6.7	22.7	23.0
Cycle Q Clear(g_c), s	17.6	13.3	7.2	16.4	13.0	7.9	13.2	18.8	12.7	6.7	22.7	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	321	773	345	302	736	328	247	1085	484	133	429	396
V/C Ratio(X)	0.90	0.61	0.36	0.89	0.62	0.40	0.87	0.65	0.47	0.81	0.88	0.89
Avail Cap(c_a), veh/h	439	773	345	439	736	328	334	1265	564	187	486	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	35.5	33.1	41.3	36.3	34.4	43.1	29.6	27.6	46.9	36.8	36.9
Incr Delay (d2), s/veh	16.6	3.6	2.9	14.6	3.9	3.6	17.3	0.9	0.7	16.6	15.6	17.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	5.4	2.7	7.5	5.3	3.0	6.3	7.0	4.2	3.2	10.3	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	39.1	36.0	55.9	40.2	38.0	60.4	30.5	28.3	63.5	52.4	54.4
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		886			859			1145			837	
Approach Delay, s/veh		44.6			44.8			35.7			54.7	
Approach LOS		D			D			D			D	

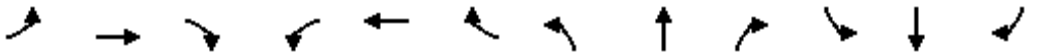
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	28.8	20.0	31.4	24.6	27.6	12.8	38.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	18.4	15.3	15.2	25.0	19.6	15.0	8.7	20.8
Green Ext Time (p_c), s	0.5	1.9	0.3	1.9	0.5	1.9	0.1	4.8

Intersection Summary	
HCM 6th Ctrl Delay	44.2
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	1	162	39	10	96	950	21	3	866	49
v/c Ratio	0.94	0.00	0.23	0.41	0.02	0.56	0.70	0.03	0.03	0.84	0.09
Control Delay	123.8	27.0	5.3	67.1	0.0	61.1	28.4	0.1	54.3	43.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.8	27.0	5.3	67.1	0.0	61.1	28.4	0.1	54.3	43.1	0.3
Queue Length 50th (ft)	78	0	0	28	0	67	263	0	2	303	0
Queue Length 95th (ft)	#207	2	48	68	0	127	396	0	13	400	0
Internal Link Dist (ft)		205					1421			2552	
Turn Bay Length (ft)	200		110	120	105	250		275	305		110
Base Capacity (vph)	113	1343	695	98	630	234	1568	750	98	1223	631
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.00	0.23	0.40	0.02	0.41	0.61	0.03	0.03	0.71	0.08

Intersection Summary

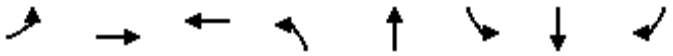
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	1	159	38	0	10	94	931	21	3	849	48
Future Volume (veh/h)	104	1	159	38	0	10	94	931	21	3	849	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	106	1	162	39	0	10	96	950	21	3	866	49
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	119	1345	600	53	1215	542	120	1240	553	7	1014	452
Arrive On Green	0.07	0.41	0.41	0.03	0.00	0.37	0.07	0.38	0.38	0.00	0.31	0.31
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	106	1	162	39	0	10	96	950	21	3	866	49
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.6	0.0	7.6	2.4	0.0	0.4	6.0	26.4	0.9	0.2	25.8	2.5
Cycle Q Clear(g_c), s	6.6	0.0	7.6	2.4	0.0	0.4	6.0	26.4	0.9	0.2	25.8	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	1345	600	53	1215	542	120	1240	553	7	1014	452
V/C Ratio(X)	0.89	0.00	0.27	0.73	0.00	0.02	0.80	0.77	0.04	0.46	0.85	0.11
Avail Cap(c_a), veh/h	119	1345	600	103	1215	542	245	1562	696	103	1278	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	18.0	20.2	49.7	0.0	20.6	47.3	28.2	20.3	51.5	33.6	25.6
Incr Delay (d2), s/veh	51.3	0.0	1.1	17.3	0.0	0.1	11.6	1.8	0.0	42.7	4.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	2.5	1.3	0.0	0.2	2.7	9.6	0.3	0.2	10.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.0	18.0	21.3	67.0	0.0	20.7	59.0	30.0	20.3	94.3	38.4	25.7
LnGrp LOS	F	B	C	E	A	C	E	C	C	F	D	C
Approach Vol, veh/h		269			49			1067			918	
Approach Delay, s/veh		52.0			57.6			32.4			37.9	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	47.1	12.1	36.7	12.0	43.0	4.9	43.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.4	9.6	8.0	27.8	8.6	2.4	2.2	28.4
Green Ext Time (p_c), s	0.0	0.5	0.1	4.4	0.0	0.0	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	184	311	11	75	1120	1	1365	40
v/c Ratio	0.65	0.74	0.04	0.68	0.53	0.01	0.78	0.05
Control Delay	41.7	28.8	28.0	73.2	9.9	42.0	18.4	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	28.8	28.0	73.2	9.9	42.0	18.4	1.9
Queue Length 50th (ft)	83	81	4	37	129	1	258	0
Queue Length 95th (ft)	158	168	18	#119	247	6	321	7
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	409	554	416	110	2918	232	3043	1365
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.56	0.03	0.68	0.38	0.00	0.45	0.03

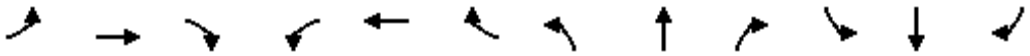
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	6	0	3	61	904	3	1	1106	32
Future Volume (veh/h)	149	0	252	6	0	3	61	904	3	1	1106	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	7	0	4	75	1116	4	1	1365	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	379	0	364	110	16	27	94	1962	7	2	1737	775
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.06	0.58	0.58	0.00	0.52	0.52
Sat Flow, veh/h	1323	0	1485	133	64	112	1668	3402	12	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	11	0	0	75	546	574	1	1365	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	309	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	15.3	0.1	0.0	0.0	3.4	15.8	15.8	0.0	25.4	1.0
Cycle Q Clear(g_c), s	11.2	0.0	15.3	15.4	0.0	0.0	3.4	15.8	15.8	0.0	25.4	1.0
Prop In Lane	1.00		1.00	0.64		0.36	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	379	0	364	153	0	0	94	960	1009	2	1737	775
V/C Ratio(X)	0.48	0.00	0.85	0.07	0.00	0.00	0.80	0.57	0.57	0.44	0.79	0.05
Avail Cap(c_a), veh/h	462	0	457	224	0	0	109	1580	1661	229	3399	1516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	27.5	23.2	0.0	0.0	35.6	10.2	10.2	38.1	14.8	9.0
Incr Delay (d2), s/veh	1.0	0.0	12.3	0.2	0.0	0.0	29.4	0.5	0.5	95.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	6.4	0.2	0.0	0.0	2.0	4.2	4.4	0.1	7.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	39.8	23.4	0.0	0.0	65.0	10.7	10.7	133.5	15.6	9.0
LnGrp LOS	C	A	D	C	A	A	E	B	B	F	B	A
Approach Vol, veh/h		495			11			1195			1406	
Approach Delay, s/veh		35.0			23.4			14.1			15.5	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.2	8.8	44.4		23.2	4.6	48.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.0	78.0		23.5	10.5	72.5				
Max Q Clear Time (g_c+I1), s		17.3	5.4	27.4		17.4	2.0	17.8				
Green Ext Time (p_c), s		1.4	0.0	12.5		0.0	0.0	7.7				

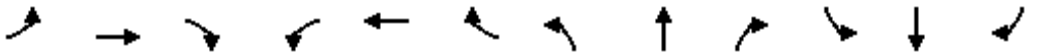
Intersection Summary												
HCM 6th Ctrl Delay			18.1									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	107	250	252	88	168	204	173	773	67	282	1005	111
v/c Ratio	0.84	0.23	0.39	0.70	0.16	0.33	0.89	0.86	0.14	0.95	0.91	0.23
Control Delay	104.0	32.8	5.7	86.1	31.7	5.7	97.0	55.2	0.6	92.0	53.6	31.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.0	32.8	5.7	86.1	31.7	5.7	97.0	55.2	0.6	92.0	53.6	31.8
Queue Length 50th (ft)	91	82	0	73	53	0	146	321	0	238	418	66
Queue Length 95th (ft)	#199	117	61	#151	82	56	#280	402	0	#413	#522	114
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	129	1073	649	134	1069	616	199	954	515	302	1160	519
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.23	0.39	0.66	0.16	0.33	0.87	0.81	0.13	0.93	0.87	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	235	237	83	158	192	163	727	63	265	945	104
Future Volume (veh/h)	101	235	237	83	158	192	163	727	63	265	945	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	107	250	252	88	168	204	173	773	67	282	1005	111
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	129	1138	508	108	1098	490	197	890	397	305	1105	493
Arrive On Green	0.08	0.34	0.34	0.07	0.33	0.33	0.12	0.27	0.27	0.18	0.33	0.33
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	107	250	252	88	168	204	173	773	67	282	1005	111
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	8.0	6.7	16.9	6.6	4.5	13.4	12.8	27.9	4.4	20.9	36.4	6.8
Cycle Q Clear(g_c), s	8.0	6.7	16.9	6.6	4.5	13.4	12.8	27.9	4.4	20.9	36.4	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	1138	508	108	1098	490	197	890	397	305	1105	493
V/C Ratio(X)	0.83	0.22	0.50	0.81	0.15	0.42	0.88	0.87	0.17	0.93	0.91	0.23
Avail Cap(c_a), veh/h	133	1138	508	138	1098	490	205	979	436	312	1190	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	29.5	32.8	58.1	29.8	32.8	54.6	44.0	35.4	50.6	40.2	30.3
Incr Delay (d2), s/veh	33.2	0.4	3.4	24.1	0.3	2.6	31.7	7.9	0.2	32.0	9.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	2.7	6.3	3.4	1.8	5.0	7.0	12.0	1.6	11.0	15.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.5	29.9	36.3	82.1	30.1	35.4	86.3	51.9	35.6	82.6	50.1	30.6
LnGrp LOS	F	C	D	F	C	D	F	D	D	F	D	C
Approach Vol, veh/h		609			460			1013			1398	
Approach Delay, s/veh		43.2			42.4			56.7			55.1	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.5	19.3	46.3	14.2	46.0	27.5	38.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	15.5	45.0	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	8.6	18.9	14.8	38.4	10.0	15.4	22.9	29.9
Green Ext Time (p_c), s	0.0	2.2	0.0	3.4	0.0	1.6	0.1	2.8

Intersection Summary	
HCM 6th Ctrl Delay	51.8
HCM 6th LOS	D

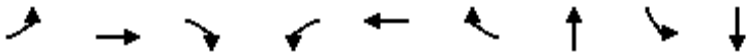
Intersection	
Int Delay, s/veh	12.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	1	24	8	2	2	23	238	20	1	198	56
Future Vol, veh/h	57	1	24	8	2	2	23	238	20	1	198	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	1	25	8	2	2	24	251	21	1	208	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	26	0	0	287	154	14	289	165	3
Stage 1	-	-	-	-	-	-	134	134	-	19	19	-
Stage 2	-	-	-	-	-	-	153	20	-	270	146	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1592	-	-	1563	-	-	657	731	1054	655	720	1069
Stage 1	-	-	-	-	-	-	860	778	-	990	872	-
Stage 2	-	-	-	-	-	-	840	871	-	727	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1563	-	-	461	700	1054	449	689	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	461	700	-	449	689	-
Stage 1	-	-	-	-	-	-	827	748	-	952	868	-
Stage 2	-	-	-	-	-	-	600	867	-	456	740	-

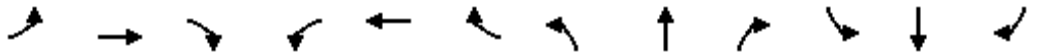
Approach	EB	WB	NB	SB
HCM Control Delay, s	5.1	4.9	14.1	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	687	1592	-	-	1563	-	-	746
HCM Lane V/C Ratio	0.431	0.038	-	-	0.005	-	-	0.36
HCM Control Delay (s)	14.1	7.3	0	-	7.3	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.2	0.1	-	-	0	-	-	1.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	104	662	17	21	541	154	133	214	280
v/c Ratio	0.34	0.45	0.02	0.10	0.52	0.27	0.27	0.51	0.47
Control Delay	29.1	14.5	0.1	31.6	20.9	5.5	17.2	23.2	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	14.5	0.1	31.6	20.9	5.5	17.2	23.2	13.1
Queue Length 50th (ft)	32	62	0	7	82	0	30	60	41
Queue Length 95th (ft)	97	191	0	32	175	41	86	152	125
Internal Link Dist (ft)		2540			1252		326		432
Turn Bay Length (ft)	310		300	315		155		200	
Base Capacity (vph)	916	2424	1100	916	2424	1129	1085	928	1180
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.27	0.02	0.02	0.22	0.14	0.12	0.23	0.24

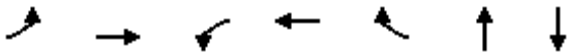
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	629	16	20	514	146	35	64	28	203	71	195
Future Volume (veh/h)	99	629	16	20	514	146	35	64	28	203	71	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	104	662	17	21	541	154	37	67	29	214	75	205
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	150	1187	529	45	977	436	171	245	83	528	120	328
Arrive On Green	0.09	0.34	0.34	0.03	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	185	877	296	1258	429	1172
Grp Volume(v), veh/h	104	662	17	21	541	154	133	0	0	214	0	280
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1358	0	0	1258	0	1600
Q Serve(g_s), s	2.3	6.0	0.3	0.5	5.2	3.1	0.2	0.0	0.0	0.0	0.0	5.9
Cycle Q Clear(g_c), s	2.3	6.0	0.3	0.5	5.2	3.1	6.1	0.0	0.0	6.1	0.0	5.9
Prop In Lane	1.00		1.00	1.00		1.00	0.28		0.22	1.00		0.73
Lane Grp Cap(c), veh/h	150	1187	529	45	977	436	499	0	0	528	0	447
V/C Ratio(X)	0.69	0.56	0.03	0.47	0.55	0.35	0.27	0.00	0.00	0.41	0.00	0.63
Avail Cap(c_a), veh/h	1206	3519	1569	1206	3519	1569	1608	0	0	1479	0	1657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	10.3	8.4	18.5	11.8	11.0	10.9	0.0	0.0	12.2	0.0	12.2
Incr Delay (d2), s/veh	5.6	0.4	0.0	7.3	0.5	0.5	0.3	0.0	0.0	0.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.3	0.1	0.2	1.2	0.7	0.7	0.0	0.0	1.3	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	10.7	8.4	25.9	12.2	11.5	11.2	0.0	0.0	12.7	0.0	13.6
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		783			716			133			494	
Approach Delay, s/veh		12.2			12.5			11.2			13.2	
Approach LOS		B			B			B			B	

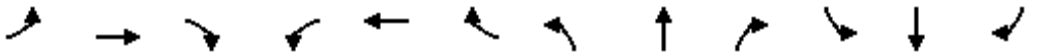
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	17.8		15.3	7.9	15.5		15.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.5	8.0		8.1	4.3	7.2		8.1				
Green Ext Time (p_c), s	0.0	4.2		2.7	0.2	3.8		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		12.5	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	40	593	82	345	77	288	569
v/c Ratio	0.24	0.71	0.47	0.37	0.16	0.41	0.89
Control Delay	54.7	43.3	60.5	34.5	8.9	14.7	42.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	43.3	60.5	34.5	8.9	14.7	42.7
Queue Length 50th (ft)	30	219	61	116	0	96	370
Queue Length 95th (ft)	56	234	97	136	26	128	417
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	178	965	189	1068	529	839	765
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.61	0.43	0.32	0.15	0.34	0.74

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	409	48	63	266	59	43	57	122	175	163	100
Future Volume (veh/h)	31	409	48	63	266	59	43	57	122	175	163	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	40	531	62	82	345	77	56	74	158	227	212	130
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	113	710	83	152	864	386	154	206	384	304	252	150
Arrive On Green	0.07	0.23	0.23	0.09	0.26	0.26	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1682	3029	353	1682	3357	1497	223	418	780	513	512	303
Grp Volume(v), veh/h	40	294	299	82	345	77	288	0	0	569	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1703	1682	1678	1497	1421	0	0	1328	0	0
Q Serve(g_s), s	2.2	16.0	16.1	4.6	8.4	4.0	0.0	0.0	0.0	26.6	0.0	0.0
Cycle Q Clear(g_c), s	2.2	16.0	16.1	4.6	8.4	4.0	11.5	0.0	0.0	38.1	0.0	0.0
Prop In Lane	1.00		0.21	1.00		1.00	0.19		0.55	0.40		0.23
Lane Grp Cap(c), veh/h	113	393	399	152	864	386	744	0	0	706	0	0
V/C Ratio(X)	0.35	0.75	0.75	0.54	0.40	0.20	0.39	0.00	0.00	0.81	0.00	0.00
Avail Cap(c_a), veh/h	184	501	508	196	1025	457	919	0	0	875	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	35.1	35.1	43.0	30.4	28.7	15.5	0.0	0.0	22.8	0.0	0.0
Incr Delay (d2), s/veh	1.9	10.2	10.2	2.9	1.1	0.9	1.2	0.0	0.0	8.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.2	7.3	1.9	3.3	1.4	4.0	0.0	0.0	12.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	45.3	45.4	45.9	31.5	29.6	16.7	0.0	0.0	31.0	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		633			504			288			569	
Approach Delay, s/veh		45.4			33.5			16.7			31.0	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.9	30.2		55.7	10.7	32.5		55.7				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	6.6	18.1		13.5	4.2	10.4		40.1				
Green Ext Time (p_c), s	0.1	5.0		5.2	0.0	4.9		8.6				

Intersection Summary												
HCM 6th Ctrl Delay			34.1									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	21	10	0	0	0
Future Vol, veh/h	0	21	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	48	23	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	71	23
Stage 1	-	-	-	-	23	-
Stage 2	-	-	-	-	48	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1605	-	-	-	938	1060
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	980	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1605	-	-	-	938	1060
Mov Cap-2 Maneuver	-	-	-	-	938	-
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	980	-

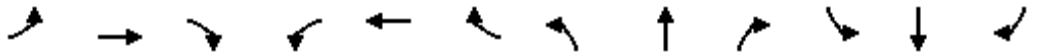
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1605	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	59	865	6	579	88	9	11	235	145
v/c Ratio	0.29	0.65	0.04	0.56	0.19	0.06	0.07	0.57	0.24
Control Delay	32.9	18.5	33.7	22.0	19.6	33.7	31.6	32.2	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	18.5	33.7	22.0	19.6	33.7	31.6	32.2	19.8
Queue Length 50th (ft)	22	123	2	105	27	3	4	82	37
Queue Length 95th (ft)	66	257	15	178	67	19	20	#239	124
Internal Link Dist (ft)		1213		1278			262		404
Turn Bay Length (ft)	300		300		200	200		300	
Base Capacity (vph)	414	2693	414	2696	1206	414	522	414	606
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.32	0.01	0.21	0.07	0.02	0.02	0.57	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	814	8	6	550	84	9	4	7	223	10	127
Future Volume (veh/h)	56	814	8	6	550	84	9	4	7	223	10	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	59	857	8	6	579	88	9	4	7	235	11	134
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	94	1221	11	13	1042	465	20	58	101	294	30	368
Arrive On Green	0.06	0.36	0.36	0.01	0.31	0.31	0.01	0.10	0.10	0.17	0.26	0.26
Sat Flow, veh/h	1682	3407	32	1682	3357	1497	1682	576	1009	1682	115	1400
Grp Volume(v), veh/h	59	422	443	6	579	88	9	0	11	235	0	145
Grp Sat Flow(s),veh/h/ln	1682	1678	1761	1682	1678	1497	1682	0	1585	1682	0	1515
Q Serve(g_s), s	1.7	10.8	10.8	0.2	7.2	2.2	0.3	0.0	0.3	6.7	0.0	3.9
Cycle Q Clear(g_c), s	1.7	10.8	10.8	0.2	7.2	2.2	0.3	0.0	0.3	6.7	0.0	3.9
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.64	1.00		0.92
Lane Grp Cap(c), veh/h	94	601	631	13	1042	465	20	0	158	294	0	398
V/C Ratio(X)	0.63	0.70	0.70	0.45	0.56	0.19	0.46	0.00	0.07	0.80	0.00	0.36
Avail Cap(c_a), veh/h	521	1692	1776	521	3384	1510	521	0	649	521	0	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	13.8	13.8	24.7	14.4	12.7	24.6	0.0	20.4	19.8	0.0	15.1
Incr Delay (d2), s/veh	6.7	1.5	1.4	21.4	0.5	0.2	15.5	0.0	0.2	5.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.0	3.2	0.1	2.0	0.7	0.2	0.0	0.1	2.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	15.3	15.2	46.2	14.9	12.9	40.1	0.0	20.6	24.9	0.0	15.6
LnGrp LOS	C	B	B	D	B	B	D	A	C	C	A	B
Approach Vol, veh/h		924			673			20			380	
Approach Delay, s/veh		16.2			14.9			29.4			21.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	22.4	5.1	17.7	7.3	20.0	13.2	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.2	12.8	2.3	5.9	3.7	9.2	8.7	2.3
Green Ext Time (p_c), s	0.0	5.1	0.0	0.7	0.1	3.9	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	132	32	26	22	2	20	88	55	6	33	7
Future Vol, veh/h	9	132	32	26	22	2	20	88	55	6	33	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	174	42	34	29	3	26	116	72	8	43	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	8.5	9.3	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	5%	52%	13%
Vol Thru, %	54%	76%	44%	72%
Vol Right, %	34%	18%	4%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	163	173	50	46
LT Vol	20	9	26	6
Through Vol	88	132	22	33
RT Vol	55	32	2	7
Lane Flow Rate	214	228	66	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.272	0.291	0.091	0.082
Departure Headway (Hd)	4.564	4.598	4.972	4.862
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	781	718	734
Service Time	2.604	2.637	3.021	2.912
HCM Lane V/C Ratio	0.273	0.292	0.092	0.083
HCM Control Delay	9.3	9.5	8.5	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	1.2	0.3	0.3

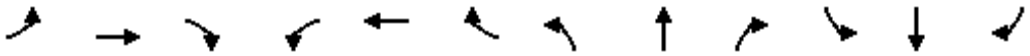
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	21	0	0	0	10	157	0	0	101	0
Future Vol, veh/h	0	0	21	0	0	0	10	157	0	0	101	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	23	0	0	0	11	174	0	0	112	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	308	308	112	320	308	174	112	0	0	-	-	0
Stage 1	112	112	-	196	196	-	-	-	-	-	-	-
Stage 2	196	196	-	124	112	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	-	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	-	-	-
Pot Cap-1 Maneuver	631	595	922	619	595	852	1435	-	-	0	-	-
Stage 1	876	789	-	790	726	-	-	-	-	0	-	-
Stage 2	790	726	-	863	789	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	627	590	922	600	590	852	1435	-	-	-	-	-
Mov Cap-2 Maneuver	627	590	-	600	590	-	-	-	-	-	-	-
Stage 1	869	789	-	784	720	-	-	-	-	-	-	-
Stage 2	784	720	-	841	789	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	0	0.5	0
HCM LOS	A	A		

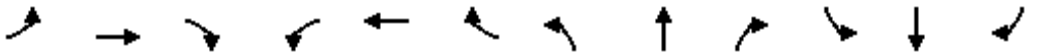
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1435	-	-	922	-	-	-
HCM Lane V/C Ratio	0.008	-	-	0.025	-	-	-
HCM Control Delay (s)	7.5	0	-	9	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	713	346	198	455	215	226	436	190	174	448	49
v/c Ratio	0.63	0.70	0.76	0.74	0.41	0.44	0.74	0.58	0.56	0.66	0.66	0.16
Control Delay	57.5	35.6	44.5	61.4	29.0	31.8	57.2	39.4	43.9	54.9	43.1	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	35.6	44.5	61.4	29.0	31.8	57.2	39.4	43.9	54.9	43.1	37.2
Queue Length 50th (ft)	87	213	201	123	121	109	136	132	109	106	143	27
Queue Length 95th (ft)	176	314	345	#290	192	204	#294	209	205	204	214	64
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	286	1422	636	286	1422	636	360	1052	470	360	1052	470
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.50	0.54	0.69	0.32	0.34	0.63	0.41	0.40	0.48	0.43	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	649	315	180	414	196	206	397	173	158	408	45
Future Volume (veh/h)	129	649	315	180	414	196	206	397	173	158	408	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	142	713	346	198	455	215	226	436	190	174	448	49
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	180	1043	465	240	1164	519	272	742	331	217	632	282
Arrive On Green	0.10	0.30	0.30	0.14	0.33	0.33	0.15	0.21	0.21	0.12	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	142	713	346	198	455	215	226	436	190	174	448	49
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.0	13.7	15.2	8.4	7.6	8.1	9.5	8.5	8.3	7.3	9.1	2.0
Cycle Q Clear(g_c), s	6.0	13.7	15.2	8.4	7.6	8.1	9.5	8.5	8.3	7.3	9.1	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	180	1043	465	240	1164	519	272	742	331	217	632	282
V/C Ratio(X)	0.79	0.68	0.74	0.82	0.39	0.41	0.83	0.59	0.57	0.80	0.71	0.17
Avail Cap(c_a), veh/h	358	1772	790	358	1772	790	450	1312	585	450	1312	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	23.8	24.3	32.2	19.7	19.9	31.4	27.2	27.2	32.7	29.5	26.6
Incr Delay (d2), s/veh	7.5	0.8	2.4	9.4	0.2	0.5	6.6	0.7	1.6	6.8	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	5.0	5.4	3.8	2.7	2.7	4.2	3.4	3.0	3.3	3.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	24.6	26.7	41.6	19.9	20.4	38.1	28.0	28.7	39.4	31.0	26.9
LnGrp LOS	D	C	C	D	B	C	D	C	C	D	C	C
Approach Vol, veh/h		1201			868			852			671	
Approach Delay, s/veh		27.2			25.0			30.8			32.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	27.2	16.3	18.2	12.3	29.8	13.9	20.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.4	17.2	11.5	11.1	8.0	10.1	9.3	10.5
Green Ext Time (p_c), s	0.2	5.5	0.4	2.6	0.2	3.4	0.3	3.0

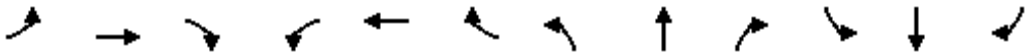
Intersection Summary	
HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	234.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	37	90	69	2	104	36	635	102	139	814	4
Future Vol, veh/h	55	37	90	69	2	104	36	635	102	139	814	4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	73	49	120	92	3	139	48	847	136	185	1085	5
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	58.9	27.7	232.8	306.4
HCM LOS	F	D	F	F

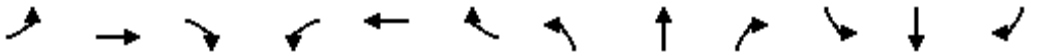
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	67%	20%	0%	2%	0%	100%	99%
Vol Right, %	0%	0%	33%	49%	0%	98%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	423	314	182	69	106	139	543	275
LT Vol	36	0	0	55	69	0	139	0	0
Through Vol	0	423	212	37	0	2	0	543	271
RT Vol	0	0	102	90	0	104	0	0	4
Lane Flow Rate	48	564	418	243	92	141	185	724	367
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.145	1.62	1.174	0.805	0.327	0.456	0.541	2.01	1.019
Departure Headway (Hd)	11.982	11.456	11.216	14.767	15.722	14.483	11.366	10.841	10.83
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	301	322	326	248	230	250	319	340	338
Service Time	9.682	9.156	8.916	12.467	13.422	12.183	9.066	8.541	8.53
HCM Lane V/C Ratio	0.159	1.752	1.282	0.98	0.4	0.564	0.58	2.129	1.086
HCM Control Delay	16.7	320.4	139.4	58.9	25.9	28.8	26.7	488.7	88.4
HCM Lane LOS	C	F	F	F	D	D	D	F	F
HCM 95th-tile Q	0.5	30.6	15.9	6.1	1.4	2.2	3	47.2	11.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	143	12	250	67	11	2	82	777	107	6	1075	68
v/c Ratio	0.59	0.03	0.66	0.40	0.04	0.01	0.44	0.43	0.13	0.06	0.76	0.11
Control Delay	48.5	28.4	41.9	49.1	32.9	32.5	48.7	16.3	15.1	47.4	30.2	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	28.4	41.9	49.1	32.9	32.5	48.7	16.3	15.1	47.4	30.2	22.1
Queue Length 50th (ft)	79	6	136	37	5	1	45	133	29	3	288	25
Queue Length 95th (ft)	141	19	210	82	20	7	93	243	77	17	#420	60
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	355	941	800	213	791	672	254	1879	841	101	1422	636
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.01	0.31	0.31	0.01	0.00	0.32	0.41	0.13	0.06	0.76	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	10	210	56	9	2	69	653	90	5	903	57
Future Volume (veh/h)	120	10	210	56	9	2	69	653	90	5	903	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	143	12	250	67	11	2	82	777	107	6	1075	68
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	185	367	311	96	273	231	106	1589	709	14	1406	627
Arrive On Green	0.11	0.20	0.20	0.05	0.15	0.15	0.06	0.45	0.45	0.01	0.40	0.40
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	143	12	250	67	11	2	82	777	107	6	1075	68
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	5.0	0.3	9.7	2.4	0.3	0.1	2.9	9.9	2.5	0.2	16.8	1.7
Cycle Q Clear(g_c), s	5.0	0.3	9.7	2.4	0.3	0.1	2.9	9.9	2.5	0.2	16.8	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	367	311	96	273	231	106	1589	709	14	1406	627
V/C Ratio(X)	0.77	0.03	0.80	0.70	0.04	0.01	0.78	0.49	0.15	0.43	0.76	0.11
Avail Cap(c_a), veh/h	484	1277	1083	290	1074	910	346	2344	1046	138	1931	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	20.5	24.2	29.5	23.1	23.0	29.4	12.1	10.1	31.3	16.4	11.9
Incr Delay (d2), s/veh	6.7	0.0	4.9	8.9	0.1	0.0	11.4	0.2	0.1	19.9	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.1	3.6	1.2	0.1	0.0	1.5	3.2	0.7	0.2	5.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	20.5	29.1	38.3	23.2	23.0	40.7	12.4	10.2	51.2	17.6	11.9
LnGrp LOS	C	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		405			80			966			1149	
Approach Delay, s/veh		30.7			35.9			14.5			17.5	
Approach LOS		C			D			B			B	

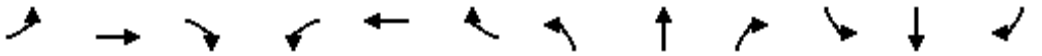
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	17.1	8.3	30.0	11.2	13.9	5.0	33.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	4.4	11.7	4.9	18.8	7.0	2.3	2.2	11.9
Green Ext Time (p_c), s	0.1	0.9	0.1	6.7	0.2	0.0	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	179	765	53	257	123	126	659	93	178	1085	120
v/c Ratio	0.74	0.65	0.68	0.33	0.25	0.81	0.58	0.15	0.73	0.83	0.21
Control Delay	66.1	31.4	95.5	39.4	2.8	87.5	34.1	0.5	65.0	37.8	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.1	31.4	95.5	39.4	2.8	87.5	34.1	0.5	65.0	37.8	24.2
Queue Length 50th (ft)	127	224	39	84	0	93	213	0	126	374	58
Queue Length 95th (ft)	201	293	#107	126	10	#199	265	0	198	428	96
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	293	1176	78	779	485	156	1255	673	301	1546	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.65	0.68	0.33	0.25	0.81	0.53	0.14	0.59	0.70	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	419	239	46	221	106	108	567	80	153	933	103
Future Volume (veh/h)	154	419	239	46	221	106	108	567	80	153	933	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	179	487	278	53	257	123	126	659	93	178	1085	120
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	209	726	413	67	899	401	152	1168	521	209	1281	571
Arrive On Green	0.12	0.34	0.34	0.04	0.26	0.26	0.09	0.34	0.34	0.12	0.37	0.37
Sat Flow, veh/h	1739	2131	1211	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	179	396	369	53	257	123	126	659	93	178	1085	120
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	11.1	21.5	21.6	3.3	6.5	7.0	7.8	17.1	4.7	11.0	31.6	5.8
Cycle Q Clear(g_c), s	11.1	21.5	21.6	3.3	6.5	7.0	7.8	17.1	4.7	11.0	31.6	5.8
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	591	548	67	899	401	152	1168	521	209	1281	571
V/C Ratio(X)	0.85	0.67	0.67	0.79	0.29	0.31	0.83	0.56	0.18	0.85	0.85	0.21
Avail Cap(c_a), veh/h	297	591	548	79	899	401	158	1267	565	305	1561	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	31.0	31.0	52.4	32.6	32.8	49.4	29.9	25.8	47.5	31.9	23.7
Incr Delay (d2), s/veh	15.4	5.9	6.5	34.7	0.8	2.0	28.3	0.5	0.2	14.2	3.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	9.3	8.7	2.0	2.7	0.2	4.5	7.0	1.7	5.5	13.3	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.8	36.9	37.5	87.1	33.4	34.8	77.7	30.4	25.9	61.7	35.7	23.9
LnGrp LOS	E	D	D	F	C	C	E	C	C	E	D	C
Approach Vol, veh/h		944			433			878			1383	
Approach Delay, s/veh		42.1			40.4			36.7			38.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	42.0	14.1	45.1	17.8	33.0	17.7	41.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.3	23.6	9.8	33.6	13.1	9.0	13.0	19.1
Green Ext Time (p_c), s	0.0	3.6	0.0	7.0	0.2	1.5	0.2	4.5

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	36	86	934	98	1241
v/c Ratio	0.09	0.20	0.48	0.56	0.51
Control Delay	37.3	9.0	17.3	63.1	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	9.0	17.3	63.1	9.5
Queue Length 50th (ft)	22	0	216	74	214
Queue Length 95th (ft)	51	42	296	126	261
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	401	425	1935	299	2438
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.20	0.48	0.33	0.51

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	77	760	81	88	1117
Future Volume (veh/h)	32	77	760	81	88	1117
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	86	844	90	98	1241
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1892	202	123	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3307	343	1767	3618
Grp Volume(v), veh/h	36	86	463	471	98	1241
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1794	1767	1763
Q Serve(g_s), s	1.9	5.4	17.6	17.6	6.6	19.8
Cycle Q Clear(g_c), s	1.9	5.4	17.6	17.6	6.6	19.8
Prop In Lane	1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	405	360	1038	1056	123	2453
V/C Ratio(X)	0.09	0.24	0.45	0.45	0.79	0.51
Avail Cap(c_a), veh/h	405	360	1038	1056	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	37.7	13.8	13.8	55.0	8.6
Incr Delay (d2), s/veh	0.4	1.6	1.4	1.4	10.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.2	6.9	7.0	3.2	6.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.8	39.3	15.2	15.1	65.9	9.3
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	122		934			1339
Approach Delay, s/veh	38.6		15.2			13.5
Approach LOS	D		B			B

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			88.0		32.0	12.9	75.1
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s			21.8		7.4	8.6	19.6
Green Ext Time (p_c), s			11.5		0.3	0.1	6.6

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1005	73	35	1063	0	12	0	38	0	0	0
Future Vol, veh/h	0	1005	73	35	1063	0	12	0	38	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	91	91	91	91	92	91	92	91	92	92	92
Heavy Vehicles, %	2	3	3	3	3	2	3	2	3	2	2	2
Mvmt Flow	0	1104	80	38	1168	0	13	0	42	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1168	0	0	1184	0	0	2388	2388	1144	2409	2428	1168
Stage 1	-	-	-	-	-	-	1144	1144	-	1244	1244	-
Stage 2	-	-	-	-	-	-	1244	1244	-	1165	1184	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.13	6.52	6.23	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.527	4.018	3.327	3.518	4.018	3.318
Pot Cap-1 Maneuver	598	-	-	586	-	-	23	34	242	23	32	235
Stage 1	-	-	-	-	-	-	242	275	-	213	246	-
Stage 2	-	-	-	-	-	-	212	246	-	237	263	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	598	-	-	586	-	-	20	28	242	16	26	235
Mov Cap-2 Maneuver	-	-	-	-	-	-	20	28	-	16	26	-
Stage 1	-	-	-	-	-	-	242	275	-	213	200	-
Stage 2	-	-	-	-	-	-	173	200	-	196	263	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	169.7	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	66	598	-	-	586	-	-	-
HCM Lane V/C Ratio	0.833	-	-	-	0.066	-	-	-
HCM Control Delay (s)	169.7	0	-	-	11.6	0	-	0
HCM Lane LOS	F	A	-	-	B	A	-	A
HCM 95th %tile Q(veh)	3.9	0	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	231	11	59	148	33	4	12	59	16	11	5
Future Vol, veh/h	16	231	11	59	148	33	4	12	59	16	11	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	18	266	13	68	170	38	5	14	68	18	13	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	208	0	0	279	0	0	644	653	273	675	640	189
Stage 1	-	-	-	-	-	-	309	309	-	325	325	-
Stage 2	-	-	-	-	-	-	335	344	-	350	315	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1369	-	-	1289	-	-	387	388	768	369	395	855
Stage 1	-	-	-	-	-	-	703	661	-	690	651	-
Stage 2	-	-	-	-	-	-	681	638	-	669	657	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1369	-	-	1289	-	-	356	363	768	310	369	855
Mov Cap-2 Maneuver	-	-	-	-	-	-	356	363	-	310	369	-
Stage 1	-	-	-	-	-	-	694	652	-	681	616	-
Stage 2	-	-	-	-	-	-	628	604	-	589	648	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	2	11.6	15.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	356	646	1369	-	-	1289	-	-	367
HCM Lane V/C Ratio	0.013	0.126	0.013	-	-	0.053	-	-	0.1
HCM Control Delay (s)	15.2	11.4	7.7	-	-	7.9	-	-	15.9
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	116	35	42	45	1	29	0	53	0	1	1
Future Vol, veh/h	0	116	35	42	45	1	29	0	53	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	130	39	47	51	1	33	0	60	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	169	0	0	297	296	150	326	315	52
Stage 1	-	-	-	-	-	-	150	150	-	146	146	-
Stage 2	-	-	-	-	-	-	147	146	-	180	169	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1560	-	-	1415	-	-	657	617	899	629	602	1019
Stage 1	-	-	-	-	-	-	855	775	-	859	778	-
Stage 2	-	-	-	-	-	-	858	778	-	824	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1560	-	-	1415	-	-	639	596	899	572	582	1019
Mov Cap-2 Maneuver	-	-	-	-	-	-	639	596	-	572	582	-
Stage 1	-	-	-	-	-	-	855	775	-	859	752	-
Stage 2	-	-	-	-	-	-	827	752	-	769	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.6	10.2	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	786	1560	-	-	1415	-	-	741
HCM Lane V/C Ratio	0.117	-	-	-	0.033	-	-	0.003
HCM Control Delay (s)	10.2	0	-	-	7.6	0	-	9.9
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

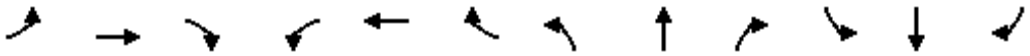
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	7	0	3	0	78	17	8	69	0
Future Vol, veh/h	0	0	0	7	0	3	0	78	17	8	69	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	8	0	3	0	84	18	9	74	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	187	194	74	185	185	93	74	0	0	102	0	0
Stage 1	92	92	-	93	93	-	-	-	-	-	-	-
Stage 2	95	102	-	92	92	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	778	705	993	780	713	970	1538	-	-	1503	-	-
Stage 1	920	823	-	919	822	-	-	-	-	-	-	-
Stage 2	917	815	-	920	823	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	772	701	993	776	709	970	1538	-	-	1503	-	-
Mov Cap-2 Maneuver	772	701	-	776	709	-	-	-	-	-	-	-
Stage 1	920	818	-	919	822	-	-	-	-	-	-	-
Stage 2	914	815	-	914	818	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.4	0	0.8
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	-	826	1503	-	-
HCM Lane V/C Ratio	-	-	-	-	0.013	0.006	-	-
HCM Control Delay (s)	0	-	-	0	9.4	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

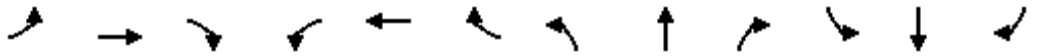


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	70	789	299	117	629	93	396	235	197	38	76	93
v/c Ratio	0.58	0.87	0.34	0.56	0.60	0.10	3.25	0.62	0.41	0.42	0.15	0.27
Control Delay	67.4	37.1	7.6	53.0	19.6	3.2	1046.2	44.8	7.8	62.6	36.6	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.4	37.1	7.6	53.0	19.6	3.2	1046.2	44.8	7.8	62.6	36.6	4.1
Queue Length 50th (ft)	45	445	34	72	273	0	~455	144	0	24	22	0
Queue Length 95th (ft)	#118	#825	107	135	460	26	#689	225	57	#66	42	17
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	120	905	872	279	1047	931	122	706	722	91	1279	659
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.87	0.34	0.42	0.60	0.10	3.25	0.33	0.27	0.42	0.06	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



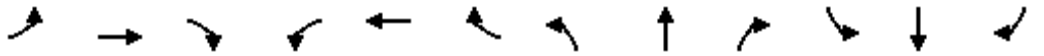
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	726	275	108	579	86	364	216	181	35	70	86
Future Volume (veh/h)	64	726	275	108	579	86	364	216	181	35	70	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	789	299	117	629	93	396	235	197	38	76	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	997	845	148	1058	897	126	301	255	59	439	196
Arrive On Green	0.05	0.53	0.53	0.08	0.57	0.57	0.07	0.16	0.16	0.03	0.12	0.12
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	70	789	299	117	629	93	396	235	197	38	76	93
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	3.7	32.3	10.3	6.1	20.9	2.6	6.7	11.4	11.3	2.0	1.8	5.2
Cycle Q Clear(g_c), s	3.7	32.3	10.3	6.1	20.9	2.6	6.7	11.4	11.3	2.0	1.8	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	997	845	148	1058	897	126	301	255	59	439	196
V/C Ratio(X)	0.78	0.79	0.35	0.79	0.59	0.10	3.15	0.78	0.77	0.64	0.17	0.47
Avail Cap(c_a), veh/h	124	997	845	287	1058	897	126	723	613	94	1310	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	17.9	12.7	42.7	13.5	9.5	44.1	38.2	38.2	45.3	37.3	38.7
Incr Delay (d2), s/veh	18.8	6.4	1.2	9.1	2.5	0.2	987.9	4.4	5.0	10.9	0.2	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	13.1	3.5	2.9	7.8	0.8	37.3	5.4	4.5	1.0	0.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	24.3	13.9	51.8	15.9	9.7	1032.0	42.7	43.1	56.2	37.4	40.5
LnGrp LOS	E	C	B	D	B	A	F	D	D	E	D	D
Approach Vol, veh/h		1158			839			828			207	
Approach Delay, s/veh		24.0			20.3			515.9			42.3	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	55.1	11.2	16.2	9.3	58.2	7.7	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.1	34.3	8.7	7.2	5.7	22.9	4.0	13.4
Green Ext Time (p_c), s	0.1	4.3	0.0	0.7	0.0	4.1	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	158.5
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	308	111	182	232	528	259	36	370
v/c Ratio	0.39	0.52	0.63	0.24	0.78	0.70	0.33	0.38	0.42
Control Delay	67.5	31.9	66.7	23.7	64.4	36.1	4.2	66.5	38.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	31.9	66.7	23.7	64.4	36.1	4.2	66.5	38.0
Queue Length 50th (ft)	28	169	83	91	173	352	0	28	123
Queue Length 95th (ft)	64	264	144	149	257	491	54	64	175
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	94	588	209	750	363	750	792	97	878
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.52	0.53	0.24	0.64	0.70	0.33	0.37	0.42

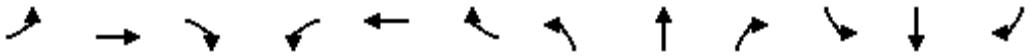
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	148	142	104	137	34	218	496	243	34	317	31
Future Volume (veh/h)	34	148	142	104	137	34	218	496	243	34	317	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	157	151	111	146	36	232	528	259	36	337	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	298	287	138	562	139	264	739	626	53	906	88
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.40	0.40	0.03	0.28	0.28
Sat Flow, veh/h	1781	876	843	1781	1449	357	1781	1870	1585	1781	3272	318
Grp Volume(v), veh/h	36	0	308	111	0	182	232	528	259	36	182	188
Grp Sat Flow(s),veh/h/ln	1781	0	1719	1781	0	1806	1781	1870	1585	1781	1777	1813
Q Serve(g_s), s	2.3	0.0	16.5	7.0	0.0	7.8	14.6	27.2	13.5	2.3	9.4	9.6
Cycle Q Clear(g_c), s	2.3	0.0	16.5	7.0	0.0	7.8	14.6	27.2	13.5	2.3	9.4	9.6
Prop In Lane	1.00		0.49	1.00		0.20	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	53	0	585	138	0	701	264	739	626	53	492	502
V/C Ratio(X)	0.68	0.00	0.53	0.81	0.00	0.26	0.88	0.71	0.41	0.68	0.37	0.37
Avail Cap(c_a), veh/h	95	0	585	210	0	701	366	739	626	98	492	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	30.3	52.0	0.0	23.8	47.7	29.2	25.0	55.0	33.3	33.4
Incr Delay (d2), s/veh	14.1	0.0	3.4	12.5	0.0	0.9	16.4	5.8	2.0	14.1	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	7.1	3.5	0.0	3.4	7.5	12.7	5.2	1.2	4.2	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	0.0	33.7	64.4	0.0	24.7	64.1	35.0	27.0	69.1	35.5	35.5
LnGrp LOS	E	A	C	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		344			293			1019			406	
Approach Delay, s/veh		37.4			39.8			39.6			38.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	43.5	21.4	36.2	7.9	48.9	7.9	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.0	18.5	16.6	11.6	4.3	9.8	4.3	29.2
Green Ext Time (p_c), s	0.1	1.6	0.3	1.7	0.0	1.0	0.0	3.6

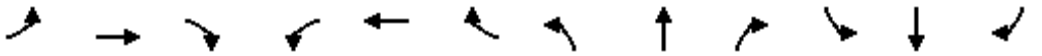
Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	129	441	88	109	240	231	187	826	147	242	456	66
v/c Ratio	0.66	0.39	0.16	0.62	0.22	0.36	0.76	0.84	0.30	0.81	0.42	0.14
Control Delay	76.6	39.3	8.3	76.6	38.1	6.5	77.4	55.1	21.0	76.7	38.9	35.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.6	39.3	8.3	76.6	38.1	6.5	77.4	55.1	21.0	76.7	38.9	35.8
Queue Length 50th (ft)	113	166	0	96	86	0	164	366	48	211	169	42
Queue Length 95th (ft)	194	241	44	170	137	66	263	473	113	#340	234	85
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	259	1131	566	233	1093	649	312	1185	580	366	1291	577
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.39	0.16	0.47	0.22	0.36	0.60	0.70	0.25	0.66	0.35	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	432	86	107	235	226	183	809	144	237	447	65
Future Volume (veh/h)	126	432	86	107	235	226	183	809	144	237	447	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	441	88	109	240	231	187	826	147	242	456	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	1233	550	135	1190	531	217	985	440	273	1097	489
Arrive On Green	0.09	0.35	0.35	0.08	0.33	0.33	0.12	0.28	0.28	0.15	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	129	441	88	109	240	231	187	826	147	242	456	66
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.7	11.3	4.7	7.4	5.9	13.9	12.6	26.8	9.0	16.3	12.5	3.7
Cycle Q Clear(g_c), s	8.7	11.3	4.7	7.4	5.9	13.9	12.6	26.8	9.0	16.3	12.5	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	1233	550	135	1190	531	217	985	440	273	1097	489
V/C Ratio(X)	0.82	0.36	0.16	0.81	0.20	0.44	0.86	0.84	0.33	0.89	0.42	0.13
Avail Cap(c_a), veh/h	284	1233	550	255	1190	531	342	1291	576	400	1407	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	29.8	27.7	55.7	29.1	31.7	52.8	41.7	35.3	50.8	33.6	30.5
Incr Delay (d2), s/veh	10.3	0.8	0.6	10.8	0.4	2.6	12.6	3.9	0.4	15.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	4.7	1.8	3.6	2.5	5.5	6.3	11.9	3.5	8.2	5.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.2	30.6	28.3	66.5	29.4	34.3	65.4	45.6	35.7	66.1	33.8	30.7
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		658			580			1160			764	
Approach Delay, s/veh		37.1			38.3			47.5			43.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	47.0	19.4	42.3	15.3	45.5	23.2	38.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	42.5	23.5	48.5	19.5	40.5	27.5	44.5
Max Q Clear Time (g_c+I1), s	9.4	13.3	14.6	14.5	10.7	15.9	18.3	28.8
Green Ext Time (p_c), s	0.1	2.8	0.3	3.1	0.2	2.0	0.4	5.2

Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	145	12	1	96
Future Vol, veh/h	5	1	145	12	1	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	6	1	161	13	1	107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	277	168	0	0	174	0
Stage 1	168	-	-	-	-	-
Stage 2	109	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	698	858	-	-	1361	-
Stage 1	845	-	-	-	-	-
Stage 2	898	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	697	858	-	-	1361	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	720	1361	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	10	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	41	846	21	748	53
v/c Ratio	0.11	0.43	0.21	0.35	0.14
Control Delay	10.3	11.4	54.4	7.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	11.4	54.4	7.7	10.4
Queue Length 50th (ft)	9	120	13	102	0
Queue Length 95th (ft)	31	227	42	131	32
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	386	1989	182	2487	382
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.43	0.12	0.30	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	787	8	20	703	0	4	0	46	0	0	0
Future Volume (veh/h)	39	787	8	20	703	0	4	0	46	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	837	9	21	748	0	4	0	49			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	443	2014	22	34	2187	0	25	0	308			
Arrive On Green	0.62	0.62	0.62	0.02	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	640	3231	35	1598	3272	0	108	0	1325			
Grp Volume(v), veh/h	41	413	433	21	748	0	53	0	0			
Grp Sat Flow(s),veh/h/ln	640	1594	1671	1598	1594	0	1434	0	0			
Q Serve(g_s), s	3.1	14.5	14.5	1.4	10.6	0.0	3.2	0.0	0.0			
Cycle Q Clear(g_c), s	6.8	14.5	14.5	1.4	10.6	0.0	3.2	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.08		0.92			
Lane Grp Cap(c), veh/h	443	994	1042	34	2187	0	333	0	0			
V/C Ratio(X)	0.09	0.42	0.42	0.61	0.34	0.00	0.16	0.00	0.00			
Avail Cap(c_a), veh/h	443	994	1042	182	2481	0	333	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.9	10.5	10.5	53.3	7.1	0.0	33.6	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.3	1.2	16.2	0.1	0.0	1.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.5	4.7	0.7	2.7	0.0	1.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.3	11.8	11.7	69.5	7.2	0.0	34.7	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		887			769			53				
Approach Delay, s/veh		11.7			8.9			34.7				
Approach LOS		B			A			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.9	73.0				79.9		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.4	16.5				12.6		5.2				
Green Ext Time (p_c), s	0.0	5.6				5.1		0.2				

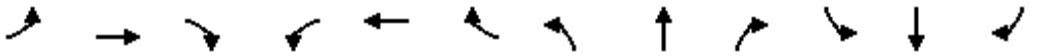
Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	112	293	12	519	121	70	746
v/c Ratio	0.20	0.64	0.06	0.50	0.26	0.28	0.49
Control Delay	17.1	25.8	31.9	20.2	20.0	30.0	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	25.8	31.9	20.2	20.0	30.0	13.5
Queue Length 50th (ft)	27	85	4	77	32	22	75
Queue Length 95th (ft)	75	203	22	160	88	71	216
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	1149	956	305	2726	1219	627	3004
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.31	0.04	0.19	0.10	0.11	0.25

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	63	36	105	59	97	11	462	108	62	663	1
Future Volume (veh/h)	1	63	36	105	59	97	11	462	108	62	663	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	71	40	118	66	109	12	519	121	70	745	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	96	299	166	262	127	152	26	980	437	114	1184	2
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.02	0.29	0.29	0.07	0.35	0.35
Sat Flow, veh/h	3	1054	587	458	449	537	1668	3328	1485	1668	3411	5
Grp Volume(v), veh/h	112	0	0	293	0	0	12	519	121	70	364	382
Grp Sat Flow(s),veh/h/ln	1644	0	0	1445	0	0	1668	1664	1485	1668	1664	1751
Q Serve(g_s), s	0.0	0.0	0.0	4.8	0.0	0.0	0.3	5.0	2.4	1.6	7.0	7.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	6.8	0.0	0.0	0.3	5.0	2.4	1.6	7.0	7.0
Prop In Lane	0.01		0.36	0.40		0.37	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	561	0	0	542	0	0	26	980	437	114	578	608
V/C Ratio(X)	0.20	0.00	0.00	0.54	0.00	0.00	0.46	0.53	0.28	0.61	0.63	0.63
Avail Cap(c_a), veh/h	1749	0	0	1557	0	0	415	4229	1886	852	2550	2683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	12.1	0.0	0.0	18.6	11.3	10.3	17.3	10.4	10.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.0	12.1	0.4	0.3	5.2	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.8	0.0	0.0	0.2	1.1	0.5	0.6	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	0.0	0.0	13.0	0.0	0.0	30.7	11.7	10.7	22.5	11.5	11.5
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		112			293			652			816	
Approach Delay, s/veh		10.7			13.0			11.9			12.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.3	5.1	17.8		15.3	7.1	15.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	9.5	58.5		38.5	19.5	48.5				
Max Q Clear Time (g_c+I1), s		4.0	2.3	9.0		8.8	3.6	7.0				
Green Ext Time (p_c), s		0.7	0.0	4.3		2.0	0.1	3.6				

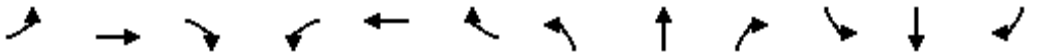
Intersection Summary												
HCM 6th Ctrl Delay			12.2									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	276	320	272	188	417	103	91	478	80	69	867
v/c Ratio	1.01	0.32	0.43	0.78	0.45	0.21	0.54	0.50	0.16	0.48	0.94
Control Delay	104.8	32.4	6.3	68.4	35.1	7.5	60.0	34.7	5.3	59.6	54.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.8	32.4	6.3	68.4	35.1	7.5	60.0	34.7	5.3	59.6	54.3
Queue Length 50th (ft)	~216	97	0	130	131	0	64	150	0	48	303
Queue Length 95th (ft)	#406	147	66	#244	191	43	117	214	28	97	#469
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	273	986	628	273	921	485	273	959	495	273	925
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.32	0.43	0.69	0.45	0.21	0.33	0.50	0.16	0.25	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	298	253	175	388	96	85	445	74	64	537	270
Future Volume (veh/h)	257	298	253	175	388	96	85	445	74	64	537	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	320	272	188	417	103	91	478	80	69	577	290
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	282	1081	482	216	949	423	113	996	444	87	608	305
Arrive On Green	0.18	0.34	0.34	0.13	0.30	0.30	0.07	0.31	0.31	0.05	0.29	0.29
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2073	1041
Grp Volume(v), veh/h	276	320	272	188	417	103	91	478	80	69	448	419
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	18.5	8.0	16.8	12.4	11.4	5.9	6.0	13.1	4.4	4.6	29.6	29.6
Cycle Q Clear(g_c), s	18.5	8.0	16.8	12.4	11.4	5.9	6.0	13.1	4.4	4.6	29.6	29.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	282	1081	482	216	949	423	113	996	444	87	472	442
V/C Ratio(X)	0.98	0.30	0.56	0.87	0.44	0.24	0.80	0.48	0.18	0.79	0.95	0.95
Avail Cap(c_a), veh/h	282	1081	482	282	949	423	282	996	444	282	474	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	26.5	29.5	46.0	31.0	29.0	49.7	30.3	27.4	50.7	37.5	37.5
Incr Delay (d2), s/veh	47.1	0.7	4.7	19.8	1.5	1.4	12.2	0.4	0.2	14.9	28.7	30.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	2.9	6.0	5.9	4.3	2.1	2.7	4.8	1.4	2.1	14.5	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.7	27.2	34.2	65.8	32.4	30.4	61.9	30.7	27.5	65.6	66.2	67.7
LnGrp LOS	F	C	C	E	C	C	E	C	C	E	E	E
Approach Vol, veh/h		868			708			649			936	
Approach Delay, s/veh		49.9			41.0			34.7			66.8	
Approach LOS		D			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	41.0	12.1	36.3	23.5	36.5	10.3	38.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	32.0	19.0	32.0	19.0	32.0	19.0	32.0
Max Q Clear Time (g_c+I1), s	14.4	18.8	8.0	31.6	20.5	13.4	6.6	15.1
Green Ext Time (p_c), s	0.2	2.2	0.1	0.2	0.0	2.5	0.1	2.7

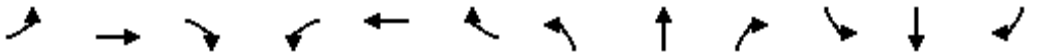
Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	22	67	13	207	745	16	4	967	121
v/c Ratio	0.23	0.09	0.15	0.94	0.47	0.02	0.05	0.91	0.21
Control Delay	59.4	0.2	58.1	95.9	21.3	0.1	55.2	50.0	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	0.2	58.1	95.9	21.3	0.1	55.2	50.0	4.5
Queue Length 50th (ft)	17	0	10	~162	188	0	3	370	0
Queue Length 95th (ft)	44	0	31	#317	287	0	15	#484	32
Internal Link Dist (ft)					1421			2552	
Turn Bay Length (ft)	200	110	120	250		275	305		110
Base Capacity (vph)	107	727	92	221	1573	752	92	1159	605
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.09	0.14	0.94	0.47	0.02	0.04	0.83	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

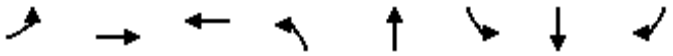
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	60	12	0	0	184	663	14	4	861	108
Future Volume (veh/h)	20	0	60	12	0	0	184	663	14	4	861	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	22	0	67	13	0	0	207	745	16	4	967	121
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	36	1146	511	24	1123	501	225	1510	673	8	1077	480
Arrive On Green	0.02	0.00	0.35	0.01	0.00	0.00	0.14	0.47	0.47	0.01	0.33	0.33
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	22	0	67	13	0	0	207	745	16	4	967	121
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.5	0.0	3.5	0.9	0.0	0.0	14.0	17.8	0.7	0.3	31.7	6.8
Cycle Q Clear(g_c), s	1.5	0.0	3.5	0.9	0.0	0.0	14.0	17.8	0.7	0.3	31.7	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	1146	511	24	1123	501	225	1510	673	8	1077	480
V/C Ratio(X)	0.61	0.00	0.13	0.54	0.00	0.00	0.92	0.49	0.02	0.47	0.90	0.25
Avail Cap(c_a), veh/h	109	1146	511	95	1123	501	225	1510	673	95	1175	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	0.0	24.5	54.7	0.0	0.0	47.5	20.7	16.1	55.4	35.5	27.2
Incr Delay (d2), s/veh	15.6	0.0	0.5	17.3	0.0	0.0	38.2	0.3	0.0	35.5	8.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.2	0.5	0.0	0.0	7.8	6.1	0.2	0.2	12.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	0.0	25.0	72.0	0.0	0.0	85.7	21.0	16.2	90.9	44.4	27.5
LnGrp LOS	E	A	C	E	A	A	F	C	B	F	D	C
Approach Vol, veh/h		89			13			968			1092	
Approach Delay, s/veh		36.1			72.0			34.7			42.7	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	44.0	20.0	41.6	7.0	43.2	5.1	56.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	2.9	5.5	16.0	33.7	3.5	0.0	2.3	19.8
Green Ext Time (p_c), s	0.0	0.2	0.0	3.4	0.0	0.0	0.0	4.9

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

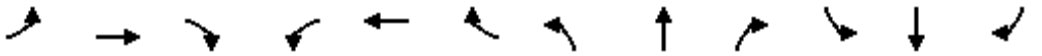


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	23	37	2	328	1032	7	930	195
v/c Ratio	0.13	0.09	0.01	1.87	0.51	0.03	0.63	0.26
Control Delay	22.1	0.5	20.5	434.3	6.9	21.8	11.7	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	0.5	20.5	434.3	6.9	21.8	11.7	2.3
Queue Length 50th (ft)	5	0	1	~135	52	2	90	0
Queue Length 95th (ft)	24	0	5	#319	166	12	134	20
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	602	799	644	175	3214	404	3223	1442
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.05	0.00	1.87	0.32	0.02	0.29	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

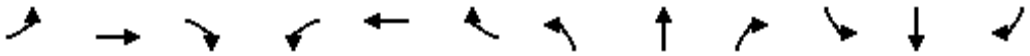
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	800	168
Future Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	800	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1009	23	7	930	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	323	0	171	180	31	84	193	1819	41	15	1467	654
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.12	0.56	0.56	0.01	0.45	0.45
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3270	75	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	505	527	7	930	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1709	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.3	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.3	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	323	0	171	294	0	0	193	910	951	15	1467	654
V/C Ratio(X)	0.07	0.00	0.22	0.01	0.00	0.00	1.70	0.55	0.55	0.46	0.63	0.30
Avail Cap(c_a), veh/h	828	0	737	819	0	0	193	2823	2949	443	6146	2741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	17.0	16.6	0.0	0.0	18.8	6.1	6.1	21.0	9.1	7.5
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.0	337.8	0.5	0.5	19.8	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	19.5	1.0	1.1	0.1	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	0.0	17.6	16.6	0.0	0.0	356.6	6.6	6.6	40.8	9.5	7.7
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1360			1132	
Approach Delay, s/veh		17.4			16.6			91.0			9.4	
Approach LOS		B			B			F			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	9.5	23.6		9.5	4.9	28.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	5.0	80.0		21.5	11.5	73.5				
Max Q Clear Time (g_c+I1), s		3.0	7.0	11.3		2.0	2.2	10.4				
Green Ext Time (p_c), s		0.2	0.0	7.8		0.0	0.0	6.8				

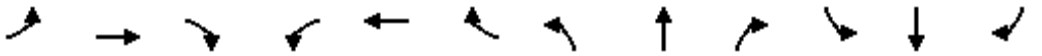
Intersection Summary												
HCM 6th Ctrl Delay			53.0									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	189	246	70	155	247	204	939	78	202	643	55
v/c Ratio	0.80	0.16	0.36	0.65	0.14	0.38	0.84	0.89	0.15	0.93	0.64	0.12
Control Delay	99.0	30.0	5.3	85.0	31.0	5.6	80.6	51.6	5.4	100.4	41.4	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.0	30.0	5.3	85.0	31.0	5.6	80.6	51.6	5.4	100.4	41.4	33.0
Queue Length 50th (ft)	83	58	0	58	48	0	166	380	0	170	243	33
Queue Length 95th (ft)	#186	90	60	#127	76	60	#289	467	29	#329	309	67
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	125	1187	689	114	1094	655	268	1173	582	217	1070	478
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.16	0.36	0.61	0.14	0.38	0.76	0.80	0.13	0.93	0.60	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	176	229	65	144	230	190	873	73	188	598	51
Future Volume (veh/h)	92	176	229	65	144	230	190	873	73	188	598	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	99	189	246	70	155	247	204	939	78	202	643	55
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
Arrive On Green	0.07	0.35	0.35	0.05	0.33	0.33	0.14	0.32	0.32	0.13	0.31	0.31
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	99	189	246	70	155	247	204	939	78	202	643	55
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.7	20.2	3.3
Cycle Q Clear(g_c), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.7	20.2	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
V/C Ratio(X)	0.82	0.16	0.46	0.80	0.14	0.49	0.89	0.89	0.17	0.90	0.61	0.12
Avail Cap(c_a), veh/h	129	1188	530	118	1123	501	277	1204	537	224	1099	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	27.4	31.0	58.1	28.8	32.9	52.6	40.3	30.7	53.0	36.3	30.5
Incr Delay (d2), s/veh	31.2	0.3	2.9	23.1	0.3	3.4	24.5	7.6	0.2	35.1	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.9	5.9	2.7	1.6	6.1	7.6	14.0	1.6	8.1	8.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.0	27.7	33.9	81.3	29.1	36.3	77.2	47.9	30.8	88.1	37.3	30.6
LnGrp LOS	F	C	C	F	C	D	E	D	C	F	D	C
Approach Vol, veh/h		534			472			1221			900	
Approach Delay, s/veh		41.7			40.6			51.7			48.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	48.4	21.4	43.2	13.4	46.0	21.0	43.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	7.1	17.8	16.8	22.2	9.2	18.3	16.7	35.0
Green Ext Time (p_c), s	0.0	1.8	0.2	3.7	0.0	1.6	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	47.3
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	5	2	0	1	17	157	1	0	121	56
Future Vol, veh/h	57	0	5	2	0	1	17	157	1	0	121	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	0	5	2	0	1	18	167	1	0	129	60

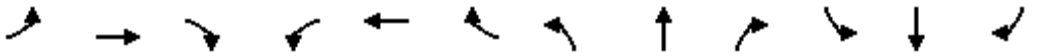
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	5	0	0	224	130	3	214	132	1
Stage 1	-	-	-	-	-	-	125	125	-	5	5	-
Stage 2	-	-	-	-	-	-	99	5	-	209	127	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1596	-	-	1590	-	-	723	753	1069	734	751	1072
Stage 1	-	-	-	-	-	-	869	785	-	1007	884	-
Stage 2	-	-	-	-	-	-	898	884	-	784	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1590	-	-	573	724	1069	586	722	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	724	-	586	722	-
Stage 1	-	-	-	-	-	-	836	755	-	969	883	-
Stage 2	-	-	-	-	-	-	724	883	-	587	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	4.8	11.9	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	707	1596	-	-	1590	-	-	805
HCM Lane V/C Ratio	0.263	0.038	-	-	0.001	-	-	0.234
HCM Control Delay (s)	11.9	7.3	0	-	7.3	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0	-	-	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	68	357	35	27	607	102	89	148
v/c Ratio	0.23	0.22	0.05	0.11	0.44	0.15	0.22	0.42
Control Delay	22.0	9.8	2.7	23.2	13.7	4.3	17.4	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	9.8	2.7	23.2	13.7	4.3	17.4	20.4
Queue Length 50th (ft)	17	20	0	7	70	0	19	33
Queue Length 95th (ft)	54	74	10	30	138	27	58	91
Internal Link Dist (ft)		2540			1252		326	432
Turn Bay Length (ft)	310		300	315		155		
Base Capacity (vph)	1036	2860	1288	1036	2860	1296	1414	1218
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.12	0.03	0.03	0.21	0.08	0.06	0.12

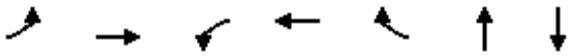
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	336	33	25	571	96	13	65	6	64	57	18
Future Volume (veh/h)	64	336	33	25	571	96	13	65	6	64	57	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	68	357	35	27	607	102	14	69	6	68	61	19
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	123	1297	578	58	1166	520	160	225	18	266	116	31
Arrive On Green	0.07	0.38	0.38	0.03	0.34	0.34	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	167	1456	117	622	749	202
Grp Volume(v), veh/h	68	357	35	27	607	102	89	0	0	148	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1741	0	0	1573	0	0
Q Serve(g_s), s	1.2	2.2	0.5	0.5	4.4	1.5	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	1.2	2.2	0.5	0.5	4.4	1.5	1.4	0.0	0.0	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.07	0.46		0.13
Lane Grp Cap(c), veh/h	123	1297	578	58	1166	520	403	0	0	412	0	0
V/C Ratio(X)	0.55	0.28	0.06	0.47	0.52	0.20	0.22	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	1502	4382	1955	1502	4382	1955	2311	0	0	2108	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.9	6.7	6.2	14.7	8.2	7.3	11.7	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.1	0.0	5.8	0.4	0.2	0.3	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.2	0.7	0.2	0.4	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	6.8	6.2	20.5	8.6	7.4	11.9	0.0	0.0	12.7	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		460			736			89			148	
Approach Delay, s/veh		8.4			8.9			11.9			12.7	
Approach LOS		A			A			B			B	

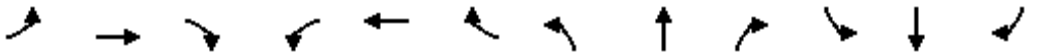
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	16.2		9.3	6.7	15.0		9.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.5	4.2		4.6	3.2	6.4		3.4				
Green Ext Time (p_c), s	0.0	2.2		0.9	0.1	4.1		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		9.3	
HCM 6th LOS		A	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	99	436	170	479	194	292	257
v/c Ratio	0.39	0.51	0.55	0.42	0.30	0.56	0.66
Control Delay	41.0	28.5	40.2	24.6	5.4	26.6	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	28.5	40.2	24.6	5.4	26.6	32.5
Queue Length 50th (ft)	44	90	75	97	0	106	98
Queue Length 95th (ft)	102	156	153	163	33	196	190
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	421	1440	643	1907	937	834	624
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.30	0.26	0.25	0.21	0.35	0.41

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	298	50	136	383	155	34	135	64	90	72	43
Future Volume (veh/h)	79	298	50	136	383	155	34	135	64	90	72	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	372	62	170	479	194	42	169	80	112	90	54
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	229	850	140	266	1064	474	107	276	119	215	157	77
Arrive On Green	0.13	0.29	0.29	0.16	0.31	0.31	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1711	2931	484	1711	3413	1522	151	1072	464	504	609	298
Grp Volume(v), veh/h	99	215	219	170	479	194	291	0	0	256	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1709	1711	1706	1522	1687	0	0	1411	0	0
Q Serve(g_s), s	3.2	6.2	6.3	5.6	6.8	6.1	0.0	0.0	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	3.2	6.2	6.3	5.6	6.8	6.1	9.1	0.0	0.0	9.7	0.0	0.0
Prop In Lane	1.00		0.28	1.00		1.00	0.14		0.27	0.44		0.21
Lane Grp Cap(c), veh/h	229	495	495	266	1064	474	502	0	0	449	0	0
V/C Ratio(X)	0.43	0.44	0.44	0.64	0.45	0.41	0.58	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	536	929	931	819	2422	1080	1147	0	0	995	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.1	17.5	17.5	24.0	16.7	16.5	20.1	0.0	0.0	20.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	2.2	2.2	2.5	1.1	2.0	3.8	0.0	0.0	4.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.3	2.3	2.1	2.3	2.0	3.7	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	19.7	19.8	26.5	17.8	18.5	23.9	0.0	0.0	24.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		533			843			291			256	
Approach Delay, s/veh		20.8			19.7			23.9			24.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	24.6		22.6	12.1	25.9		22.6				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	7.6	8.3		11.1	5.2	8.8		11.7				
Green Ext Time (p_c), s	0.4	5.6		4.4	0.2	10.1		3.9				

Intersection Summary		
HCM 6th Ctrl Delay		21.2
HCM 6th LOS		C

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	1	0	2	0
Future Vol, veh/h	0	0	1	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	0	2	0	4	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1450	-	-	-	950	1003
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1450	-	-	-	950	1003
Mov Cap-2 Maneuver	-	-	-	-	950	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1450	-	-	-	950
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	351	6	4	673	0	3	0	2	0	0	0
Future Vol, veh/h	0	351	6	4	673	0	3	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	390	7	4	748	0	3	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	748	0	0	397	0	0	776	1150	199	951	1153	374
Stage 1	-	-	-	-	-	-	394	394	-	756	756	-
Stage 2	-	-	-	-	-	-	382	756	-	195	397	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	812	-	-	1110	-	-	275	187	787	204	186	604
Stage 1	-	-	-	-	-	-	584	586	-	351	398	-
Stage 2	-	-	-	-	-	-	594	398	-	768	585	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	812	-	-	1110	-	-	274	186	787	203	185	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	274	186	-	203	185	-
Stage 1	-	-	-	-	-	-	584	586	-	351	396	-
Stage 2	-	-	-	-	-	-	592	396	-	766	585	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	14.9	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	371	812	-	-	1110	-	-	-
HCM Lane V/C Ratio	0.015	-	-	-	0.004	-	-	-
HCM Control Delay (s)	14.9	0	-	-	8.3	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	5	69	31	29	102	6	18	31	8	2	61	8
Future Vol, veh/h	5	69	31	29	102	6	18	31	8	2	61	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	96	43	40	142	8	25	43	11	3	85	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9.2	8.6	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	5%	21%	3%
Vol Thru, %	54%	66%	74%	86%
Vol Right, %	14%	30%	4%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	105	137	71
LT Vol	18	5	29	2
Through Vol	31	69	102	61
RT Vol	8	31	6	8
Lane Flow Rate	79	146	190	99
Geometry Grp	1	1	1	1
Degree of Util (X)	0.108	0.184	0.246	0.133
Departure Headway (Hd)	4.927	4.532	4.658	4.862
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	726	790	771	736
Service Time	2.969	2.565	2.69	2.901
HCM Lane V/C Ratio	0.109	0.185	0.246	0.135
HCM Control Delay	8.6	8.6	9.2	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.7	1	0.5

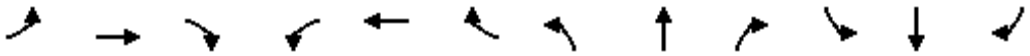
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	0	0	0	0	0	67	0	0	130	0
Future Vol, veh/h	1	0	0	0	0	0	0	67	0	0	130	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	0	0	0	0	0	0	103	0	0	200	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	303	303	200	303	303	103	200	0	0	103	0	0
Stage 1	200	200	-	103	103	-	-	-	-	-	-	-
Stage 2	103	103	-	200	200	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	638	600	826	638	600	936	1337	-	-	1452	-	-
Stage 1	788	725	-	888	798	-	-	-	-	-	-	-
Stage 2	888	798	-	788	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	638	600	826	638	600	936	1337	-	-	1452	-	-
Mov Cap-2 Maneuver	638	600	-	638	600	-	-	-	-	-	-	-
Stage 1	788	725	-	888	798	-	-	-	-	-	-	-
Stage 2	888	798	-	788	725	-	-	-	-	-	-	-

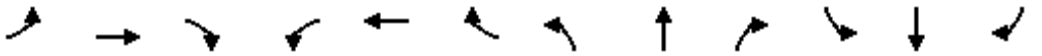
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	0	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1337	-	-	638	-	1452	-	-
HCM Lane V/C Ratio	-	-	-	0.002	-	-	-	-
HCM Control Delay (s)	0	-	-	10.7	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	24	330	133	130	568	50	193	108	76	26	166	30
v/c Ratio	0.14	0.50	0.46	0.47	0.46	0.09	0.56	0.08	0.13	0.15	0.51	0.11
Control Delay	36.4	29.7	33.2	35.9	21.4	20.4	34.3	17.5	18.8	36.3	34.2	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	29.7	33.2	35.9	21.4	20.4	34.3	17.5	18.8	36.3	34.2	28.2
Queue Length 50th (ft)	9	66	50	50	84	12	73	12	17	10	63	11
Queue Length 95th (ft)	38	128	121	124	200	49	168	42	64	39	146	38
Internal Link Dist (ft)		349			1207			1910			486	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	401	1993	891	401	1993	891	504	1504	673	504	776	660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.17	0.15	0.32	0.28	0.06	0.38	0.07	0.11	0.05	0.21	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	297	120	117	511	45	174	97	68	23	149	27
Future Volume (veh/h)	22	297	120	117	511	45	174	97	68	23	149	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	24	330	133	130	568	50	193	108	76	26	166	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	50	697	311	170	936	417	253	914	408	54	271	230
Arrive On Green	0.03	0.20	0.20	0.10	0.27	0.27	0.15	0.26	0.26	0.03	0.15	0.15
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	1826	1547
Grp Volume(v), veh/h	24	330	133	130	568	50	193	108	76	26	166	30
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1826	1547
Q Serve(g_s), s	0.6	3.7	3.3	3.2	6.3	1.1	4.7	1.0	1.7	0.7	3.8	0.7
Cycle Q Clear(g_c), s	0.6	3.7	3.3	3.2	6.3	1.1	4.7	1.0	1.7	0.7	3.8	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	50	697	311	170	936	417	253	914	408	54	271	230
V/C Ratio(X)	0.48	0.47	0.43	0.76	0.61	0.12	0.76	0.12	0.19	0.48	0.61	0.13
Avail Cap(c_a), veh/h	610	3021	1347	610	3021	1347	767	2236	997	767	1177	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	15.6	15.4	19.5	14.1	12.2	18.1	12.4	12.6	21.1	17.6	16.3
Incr Delay (d2), s/veh	6.9	0.5	0.9	7.0	0.6	0.1	4.7	0.1	0.2	6.6	2.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.1	1.0	1.3	1.8	0.3	1.8	0.3	0.5	0.3	1.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	16.1	16.4	26.4	14.7	12.3	22.8	12.4	12.8	27.7	19.9	16.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		487			748			377			222	
Approach Delay, s/veh		16.8			16.6			17.8			20.3	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	13.4	10.9	11.1	5.8	16.4	5.9	16.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.2	5.7	6.7	5.8	2.6	8.3	2.7	3.7
Green Ext Time (p_c), s	0.2	2.3	0.4	0.8	0.0	3.6	0.0	0.8

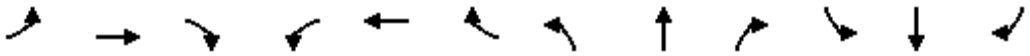
Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	25	143	22	69	64	265	76	65	353	27
Future Vol, veh/h	6	2	25	143	22	69	64	265	76	65	353	27
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	3	32	183	28	88	82	340	97	83	453	35
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

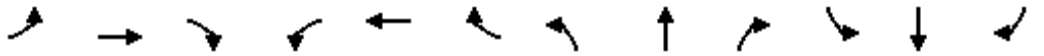
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12.4	16.1	15.8	18.3
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	18%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	6%	0%	24%	0%	100%	81%
Vol Right, %	0%	0%	46%	76%	0%	76%	0%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	177	164	33	143	91	65	235	145
LT Vol	64	0	0	6	143	0	65	0	0
Through Vol	0	177	88	2	0	22	0	235	118
RT Vol	0	0	76	25	0	69	0	0	27
Lane Flow Rate	82	226	211	42	183	117	83	302	185
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.185	0.48	0.427	0.101	0.44	0.246	0.186	0.629	0.38
Departure Headway (Hd)	8.134	7.622	7.291	8.609	8.648	7.606	8.014	7.502	7.368
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	441	473	493	415	416	471	447	480	488
Service Time	5.889	5.377	5.045	6.389	6.41	5.368	5.766	5.254	5.12
HCM Lane V/C Ratio	0.186	0.478	0.428	0.101	0.44	0.248	0.186	0.629	0.379
HCM Control Delay	12.7	17.3	15.4	12.4	18.1	12.9	12.6	22.2	14.6
HCM Lane LOS	B	C	C	B	C	B	B	C	B
HCM 95th-tile Q	0.7	2.6	2.1	0.3	2.2	1	0.7	4.3	1.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	31	2	52	257	34	8	225	420	55	2	480	140
v/c Ratio	0.22	0.01	0.32	0.63	0.05	0.01	0.62	0.26	0.08	0.02	0.65	0.42
Control Delay	39.1	31.5	37.8	36.1	21.0	21.6	38.0	14.0	13.6	36.5	31.7	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	31.5	37.8	36.1	21.0	21.6	38.0	14.0	13.6	36.5	31.7	30.1
Queue Length 50th (ft)	14	1	23	110	10	2	97	57	13	1	108	57
Queue Length 95th (ft)	40	7	54	190	33	13	172	105	38	7	147	102
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	144	835	710	406	1111	944	360	2051	917	114	1560	698
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.00	0.07	0.63	0.03	0.01	0.63	0.20	0.06	0.02	0.31	0.20

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	2	43	213	28	7	187	349	46	2	398	116
Future Volume (veh/h)	26	2	43	213	28	7	187	349	46	2	398	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	2	52	257	34	8	225	420	55	2	480	140
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	61	172	146	320	445	377	283	1342	599	5	787	351
Arrive On Green	0.03	0.09	0.09	0.18	0.24	0.24	0.16	0.38	0.38	0.00	0.22	0.22
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	31	2	52	257	34	8	225	420	55	2	480	140
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	0.9	0.1	1.7	7.5	0.8	0.2	6.6	4.5	1.2	0.1	6.6	4.1
Cycle Q Clear(g_c), s	0.9	0.1	1.7	7.5	0.8	0.2	6.6	4.5	1.2	0.1	6.6	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	172	146	320	445	377	283	1342	599	5	787	351
V/C Ratio(X)	0.51	0.01	0.36	0.80	0.08	0.02	0.79	0.31	0.09	0.42	0.61	0.40
Avail Cap(c_a), veh/h	207	1193	1011	581	1586	1344	516	2929	1306	164	2228	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	21.9	22.7	20.9	15.6	15.4	21.5	11.5	10.5	26.6	18.6	17.6
Incr Delay (d2), s/veh	6.6	0.0	1.5	4.7	0.1	0.0	5.0	0.1	0.1	48.8	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.6	3.2	0.3	0.1	2.7	1.4	0.3	0.1	2.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	22.0	24.1	25.6	15.7	15.4	26.6	11.7	10.6	75.4	19.4	18.3
LnGrp LOS	C	C	C	C	B	B	C	B	B	E	B	B
Approach Vol, veh/h		85			299			700			622	
Approach Delay, s/veh		26.9			24.2			16.4			19.3	
Approach LOS		C			C			B			B	

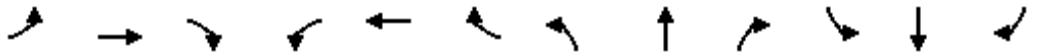
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	9.5	13.1	16.5	6.3	17.4	4.6	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	9.5	3.7	8.6	8.6	2.9	2.8	2.1	6.5
Green Ext Time (p_c), s	0.5	0.1	0.3	3.4	0.0	0.2	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	475	101	459	122	269	617	124	87	624	157
v/c Ratio	0.48	0.38	0.76	0.36	0.19	0.93	0.52	0.20	0.59	0.76	0.43
Control Delay	63.1	17.0	84.3	28.0	4.5	83.7	31.1	5.4	66.0	44.7	38.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	17.0	84.3	28.0	4.5	83.7	31.1	5.4	66.0	44.7	38.5
Queue Length 50th (ft)	41	73	71	127	0	188	190	0	59	214	94
Queue Length 95th (ft)	84	114	#154	176	26	#338	221	32	110	250	141
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	143	1238	133	1277	656	290	1412	704	166	1163	520
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.38	0.76	0.36	0.19	0.93	0.44	0.18	0.52	0.54	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



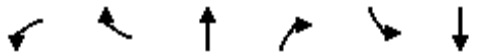
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	210	184	84	381	101	223	512	103	72	518	130
Future Volume (veh/h)	51	210	184	84	381	101	223	512	103	72	518	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	61	253	222	101	459	122	269	617	124	87	624	157
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	78	640	541	126	1340	598	297	1164	519	110	790	353
Arrive On Green	0.04	0.36	0.36	0.07	0.39	0.39	0.17	0.34	0.34	0.06	0.23	0.23
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	61	246	229	101	459	122	269	617	124	87	624	157
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.7	11.2	11.7	6.1	9.9	5.6	16.1	15.2	6.1	5.2	17.9	9.2
Cycle Q Clear(g_c), s	3.7	11.2	11.7	6.1	9.9	5.6	16.1	15.2	6.1	5.2	17.9	9.2
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	623	558	126	1340	598	297	1164	519	110	790	353
V/C Ratio(X)	0.78	0.39	0.41	0.80	0.34	0.20	0.91	0.53	0.24	0.79	0.79	0.45
Avail Cap(c_a), veh/h	149	623	558	140	1340	598	304	1471	656	174	1213	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	25.3	25.5	48.4	23.0	21.6	43.0	28.4	25.4	48.9	38.5	35.1
Incr Delay (d2), s/veh	15.4	1.9	2.2	25.7	0.7	0.8	28.4	0.4	0.2	11.8	2.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.6	4.3	3.4	3.8	2.1	9.0	6.1	2.2	2.6	7.6	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	27.2	27.7	74.1	23.7	22.4	71.5	28.8	25.7	60.7	40.5	36.0
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		536			682			1010			868	
Approach Delay, s/veh		31.8			30.9			39.8			41.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	42.5	22.6	28.6	9.3	45.4	11.2	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	8.1	13.7	18.1	19.9	5.7	11.9	7.2	17.2
Green Ext Time (p_c), s	0.0	2.5	0.0	4.2	0.0	3.0	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	90	80	1035	35	616
v/c Ratio	0.24	0.20	0.62	0.12	0.26
Control Delay	40.5	9.5	23.8	43.5	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	9.5	23.8	43.5	6.7
Queue Length 50th (ft)	58	0	295	23	81
Queue Length 95th (ft)	91	29	300	47	88
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	376	398	1680	290	2398
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.20	0.62	0.12	0.26

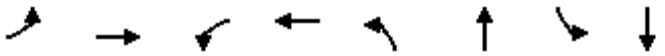
Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	71	63	783	35	28	487
Future Volume (veh/h)	71	63	783	35	28	487
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	90	80	991	44	35	616
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1664	74	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3446	149	1725	3532
Grp Volume(v), veh/h	90	80	508	527	35	616
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1784	1725	1721
Q Serve(g_s), s	5.1	5.1	25.4	25.4	2.1	7.7
Cycle Q Clear(g_c), s	5.1	5.1	25.4	25.4	2.1	7.7
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	381	339	853	885	295	2423
V/C Ratio(X)	0.24	0.24	0.60	0.60	0.12	0.25
Avail Cap(c_a), veh/h	381	339	853	885	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	38.4	21.6	21.6	42.1	6.4
Incr Delay (d2), s/veh	1.5	1.6	1.1	1.1	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.9	10.3	10.7	1.0	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.9	40.1	22.8	22.7	42.9	6.6
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	170		1035			651
Approach Delay, s/veh	40.0		22.8			8.6
Approach LOS	D		C			A

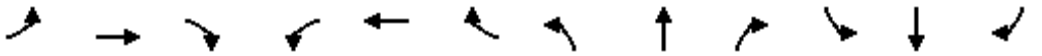
Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				89.0		31.0	25.0	64.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				84.5		26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s				9.7		7.1	4.1	27.4
Green Ext Time (p_c), s				5.0		0.4	0.0	8.2

Intersection Summary								
HCM 6th Ctrl Delay			19.4					
HCM 6th LOS			B					



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	3	450	102	828	51	104	32	24
v/c Ratio	0.01	0.43	0.31	0.49	0.19	0.29	0.13	0.08
Control Delay	29.0	18.8	25.8	12.0	26.8	23.8	27.9	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	18.8	25.8	12.0	26.8	23.8	27.9	19.8
Queue Length 50th (ft)	1	64	29	81	15	23	9	4
Queue Length 95th (ft)	9	124	83	202	51	86	39	25
Internal Link Dist (ft)		1246		2538		560		253
Turn Bay Length (ft)	150		150		150		150	
Base Capacity (vph)	220	3236	620	3431	580	920	300	735
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.14	0.16	0.24	0.09	0.11	0.11	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	382	14	90	719	10	45	5	87	29	13	9
Future Volume (veh/h)	3	382	14	90	719	10	45	5	87	29	13	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	434	16	102	817	11	51	5	99	32	14	10
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	981	36	152	1298	17	97	11	217	67	128	91
Arrive On Green	0.00	0.28	0.28	0.09	0.36	0.36	0.05	0.14	0.14	0.04	0.13	0.13
Sat Flow, veh/h	1781	3495	129	1781	3590	48	1781	77	1520	1781	1015	725
Grp Volume(v), veh/h	3	220	230	102	404	424	51	0	104	32	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1847	1781	1777	1862	1781	0	1597	1781	0	1740
Q Serve(g_s), s	0.1	4.0	4.1	2.2	7.5	7.5	1.1	0.0	2.4	0.7	0.0	0.5
Cycle Q Clear(g_c), s	0.1	4.0	4.1	2.2	7.5	7.5	1.1	0.0	2.4	0.7	0.0	0.5
Prop In Lane	1.00		0.07	1.00		0.03	1.00		0.95	1.00		0.42
Lane Grp Cap(c), veh/h	7	499	518	152	643	673	97	0	228	67	0	219
V/C Ratio(X)	0.41	0.44	0.44	0.67	0.63	0.63	0.53	0.00	0.46	0.48	0.00	0.11
Avail Cap(c_a), veh/h	247	2397	2492	696	2845	2981	651	0	1027	337	0	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	11.7	11.7	17.6	10.5	10.5	18.3	0.0	15.6	18.7	0.0	15.4
Incr Delay (d2), s/veh	33.0	0.6	0.6	5.1	1.0	1.0	4.4	0.0	1.4	5.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.1	1.1	0.9	1.8	1.8	0.5	0.0	0.8	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	12.3	12.3	22.7	11.5	11.4	22.7	0.0	17.0	24.0	0.0	15.6
LnGrp LOS	D	B	B	C	B	B	C	A	B	C	A	B
Approach Vol, veh/h		453			930			155			56	
Approach Delay, s/veh		12.6			12.7			18.9			20.4	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	15.6	6.6	9.5	4.7	18.8	6.0	10.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	53.5	14.5	18.5	5.5	63.5	7.5	25.5
Max Q Clear Time (g_c+I1), s	4.2	6.1	3.1	2.5	2.1	9.5	2.7	4.4
Green Ext Time (p_c), s	0.1	2.3	0.1	0.0	0.0	4.9	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	105	2	44	185	9	2	10	46	27	7	16
Future Vol, veh/h	10	105	2	44	185	9	2	10	46	27	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	142	3	59	250	12	3	14	62	36	9	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	262	0	0	145	0	0	562	552	144	584	547	256
Stage 1	-	-	-	-	-	-	172	172	-	374	374	-
Stage 2	-	-	-	-	-	-	390	380	-	210	173	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1308	-	-	1443	-	-	439	443	906	425	446	785
Stage 1	-	-	-	-	-	-	832	758	-	649	619	-
Stage 2	-	-	-	-	-	-	636	616	-	794	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1308	-	-	1443	-	-	403	420	906	371	423	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	403	420	-	371	423	-
Stage 1	-	-	-	-	-	-	823	750	-	642	594	-
Stage 2	-	-	-	-	-	-	584	591	-	718	750	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.4	10.4	14.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	403	751	1308	-	-	1443	-	-	456
HCM Lane V/C Ratio	0.007	0.101	0.01	-	-	0.041	-	-	0.148
HCM Control Delay (s)	14	10.3	7.8	-	-	7.6	-	-	14.3
HCM Lane LOS	B	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.3	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	43	14	55	72	1	22	1	30	0	0	0
Future Vol, veh/h	0	43	14	55	72	1	22	1	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	51	17	65	86	1	26	1	36	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	68	0	0	277	277	60	295	285	87
Stage 1	-	-	-	-	-	-	60	60	-	217	217	-
Stage 2	-	-	-	-	-	-	217	217	-	78	68	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1533	-	-	675	631	1005	657	624	971
Stage 1	-	-	-	-	-	-	951	845	-	785	723	-
Stage 2	-	-	-	-	-	-	785	723	-	931	838	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1533	-	-	652	603	1005	611	596	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	652	603	-	611	596	-
Stage 1	-	-	-	-	-	-	951	845	-	785	690	-
Stage 2	-	-	-	-	-	-	750	690	-	897	838	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.2	9.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	812	1509	-	-	1533	-	-	-
HCM Lane V/C Ratio	0.078	-	-	-	0.043	-	-	-
HCM Control Delay (s)	9.8	0	-	-	7.5	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	-

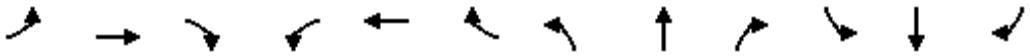
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	58	0	0	75	0
Future Vol, veh/h	0	0	0	0	0	0	0	58	0	0	75	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0	0	73	0	0	94	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	167	167	94	167	167	73	94	0	0	73	0	0
Stage 1	94	94	-	73	73	-	-	-	-	-	-	-
Stage 2	73	73	-	94	94	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	795	724	960	795	724	986	1494	-	-	1520	-	-
Stage 1	910	815	-	934	832	-	-	-	-	-	-	-
Stage 2	934	832	-	910	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	795	724	960	795	724	986	1494	-	-	1520	-	-
Mov Cap-2 Maneuver	795	724	-	795	724	-	-	-	-	-	-	-
Stage 1	910	815	-	934	832	-	-	-	-	-	-	-
Stage 2	934	832	-	910	815	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1494	-	-	-	-	1520	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

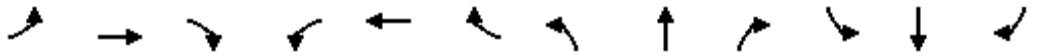


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	181	375	129	247	710	225	159	332	196	249	442	165
v/c Ratio	0.94	0.58	0.20	0.94	0.98	0.31	1.38	0.80	0.39	1.21	0.45	0.30
Control Delay	103.0	35.0	5.1	90.0	64.0	6.7	258.6	55.4	7.0	173.6	34.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.0	35.0	5.1	90.0	64.0	6.7	258.6	55.4	7.0	173.6	34.6	5.9
Queue Length 50th (ft)	130	215	0	176	490	14	~150	224	0	~216	137	0
Queue Length 95th (ft)	#243	296	25	#299	#671	48	#263	276	33	#345	157	31
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	192	649	640	263	724	734	115	571	621	206	1268	673
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.58	0.20	0.94	0.98	0.31	1.38	0.58	0.32	1.21	0.35	0.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	296	102	195	561	178	126	262	155	197	349	130
Future Volume (veh/h)	143	296	102	195	561	178	126	262	155	197	349	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	181	375	129	247	710	225	159	332	196	249	442	165
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	665	563	271	742	629	118	389	330	212	926	413
Arrive On Green	0.11	0.36	0.36	0.15	0.40	0.40	0.07	0.21	0.21	0.12	0.26	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	181	375	129	247	710	225	159	332	196	249	442	165
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	10.9	17.6	6.2	14.8	40.1	10.8	7.2	18.6	12.1	12.9	11.4	9.3
Cycle Q Clear(g_c), s	10.9	17.6	6.2	14.8	40.1	10.8	7.2	18.6	12.1	12.9	11.4	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	665	563	271	742	629	118	389	330	212	926	413
V/C Ratio(X)	0.92	0.56	0.23	0.91	0.96	0.36	1.35	0.85	0.59	1.18	0.48	0.40
Avail Cap(c_a), veh/h	197	665	563	271	742	629	118	586	496	212	1299	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	28.2	24.6	45.3	31.8	23.0	50.7	41.4	38.9	47.8	33.9	33.1
Incr Delay (d2), s/veh	42.2	3.4	0.9	32.7	24.0	1.6	201.6	7.7	1.7	117.8	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	7.9	2.4	8.6	21.2	4.1	9.7	9.0	4.7	12.4	4.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.0	31.7	25.5	78.0	55.8	24.6	252.3	49.1	40.6	165.6	34.3	33.8
LnGrp LOS	F	C	C	E	E	C	F	D	D	F	C	C
Approach Vol, veh/h		685			1182			687			856	
Approach Delay, s/veh		45.9			54.5			93.7			72.4	
Approach LOS		D			D			F			E	

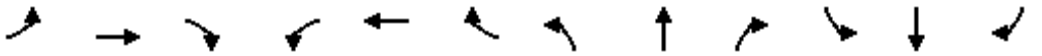
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	32.8	16.5	47.6	17.4	27.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	16.8	19.6	9.2	13.4	12.9	42.1	14.9	20.6
Green Ext Time (p_c), s	0.0	2.2	0.0	3.3	0.0	0.5	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	65.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	442	294	262	163	440	140	51	779
v/c Ratio	0.57	0.76	0.89	0.33	0.81	0.73	0.23	0.60	0.93
Control Delay	69.2	38.6	74.5	23.1	80.2	45.2	6.0	83.9	62.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.2	38.6	74.5	23.1	80.2	45.2	6.0	83.9	62.9
Queue Length 50th (ft)	59	246	221	128	125	310	0	39	311
Queue Length 95th (ft)	106	350	#340	186	#216	410	41	#92	#401
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	154	581	354	794	213	599	604	85	834
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.76	0.83	0.33	0.77	0.73	0.23	0.60	0.93

Intersection Summary

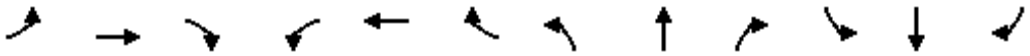
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	115	265	253	171	54	140	378	120	44	596	74
Future Volume (veh/h)	67	115	265	253	171	54	140	378	120	44	596	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	134	308	294	199	63	163	440	140	51	693	86
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	157	361	323	596	189	191	589	499	66	777	96
Arrive On Green	0.06	0.31	0.31	0.18	0.44	0.44	0.11	0.31	0.31	0.04	0.24	0.24
Sat Flow, veh/h	1781	504	1158	1781	1362	431	1781	1870	1585	1781	3182	395
Grp Volume(v), veh/h	78	0	442	294	0	262	163	440	140	51	387	392
Grp Sat Flow(s),veh/h/ln	1781	0	1662	1781	0	1793	1781	1870	1585	1781	1777	1799
Q Serve(g_s), s	5.0	0.0	28.9	18.8	0.0	11.2	10.4	24.5	7.7	3.3	24.4	24.4
Cycle Q Clear(g_c), s	5.0	0.0	28.9	18.8	0.0	11.2	10.4	24.5	7.7	3.3	24.4	24.4
Prop In Lane	1.00		0.70	1.00		0.24	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	100	0	519	323	0	784	191	589	499	66	434	440
V/C Ratio(X)	0.78	0.00	0.85	0.91	0.00	0.33	0.85	0.75	0.28	0.78	0.89	0.89
Avail Cap(c_a), veh/h	158	0	519	362	0	784	218	589	499	88	434	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	0.0	37.4	46.6	0.0	21.5	50.9	35.6	29.9	55.4	42.3	42.3
Incr Delay (d2), s/veh	12.5	0.0	16.1	24.8	0.0	1.1	24.3	8.4	1.4	26.2	23.0	23.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	13.5	10.3	0.0	4.7	5.8	12.0	0.2	1.9	13.1	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.6	0.0	53.5	71.4	0.0	22.6	75.2	44.0	31.3	81.6	65.4	65.3
LnGrp LOS	E	A	D	E	A	C	E	D	C	F	E	E
Approach Vol, veh/h		520			556			743			830	
Approach Delay, s/veh		55.5			48.4			48.5			66.4	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.5	40.7	16.9	32.8	11.0	55.2	8.8	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	20.8	30.9	12.4	26.4	7.0	13.2	5.3	26.5
Green Ext Time (p_c), s	0.2	1.2	0.1	0.7	0.0	1.5	0.0	2.1

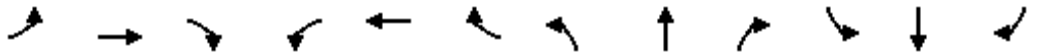
Intersection Summary	
HCM 6th Ctrl Delay	55.4
HCM 6th LOS	E



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	58	287	51	195	328	159	264	572	188	369	893	113
v/c Ratio	0.53	0.30	0.10	0.80	0.25	0.23	0.85	0.71	0.40	0.90	0.89	0.25
Control Delay	84.5	43.8	0.4	83.2	34.4	5.8	80.7	55.8	16.0	78.2	60.3	41.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.5	43.8	0.4	83.2	34.4	5.8	80.7	55.8	16.0	78.2	60.3	41.5
Queue Length 50th (ft)	56	121	0	185	123	0	249	269	36	346	434	84
Queue Length 95th (ft)	101	158	0	263	158	44	#342	318	95	#478	492	133
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	126	959	532	286	1294	679	363	917	515	465	1122	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.30	0.10	0.68	0.25	0.23	0.73	0.62	0.37	0.79	0.80	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	247	44	168	282	137	227	492	162	317	768	97
Future Volume (veh/h)	50	247	44	168	282	137	227	492	162	317	768	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	287	51	195	328	159	264	572	188	369	893	113
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1031	460	222	1324	590	292	808	360	397	1019	454
Arrive On Green	0.04	0.29	0.29	0.12	0.37	0.37	0.16	0.23	0.23	0.22	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	58	287	51	195	328	159	264	572	188	369	893	113
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.3	8.3	3.1	14.3	8.5	9.3	19.4	19.7	13.8	27.0	31.9	7.3
Cycle Q Clear(g_c), s	4.3	8.3	3.1	14.3	8.5	9.3	19.4	19.7	13.8	27.0	31.9	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	1031	460	222	1324	590	292	808	360	397	1019	454
V/C Ratio(X)	0.78	0.28	0.11	0.88	0.25	0.27	0.91	0.71	0.52	0.93	0.88	0.25
Avail Cap(c_a), veh/h	132	1031	460	301	1324	590	381	961	429	488	1174	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.2	36.5	34.7	57.3	28.9	29.1	54.7	47.4	45.1	50.7	45.2	36.5
Incr Delay (d2), s/veh	15.7	0.7	0.5	19.6	0.4	1.1	20.6	1.9	1.2	21.7	7.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.6	1.3	7.4	3.5	3.7	10.1	8.7	5.5	14.1	14.6	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.9	37.2	35.2	76.9	29.3	30.3	75.3	49.3	46.3	72.3	52.2	36.8
LnGrp LOS	E	D	D	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		396			682			1024			1375	
Approach Delay, s/veh		43.0			43.1			55.5			56.3	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	43.1	26.3	42.7	10.1	54.1	34.2	34.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	37.0	28.5	44.0	9.9	49.6	36.5	36.0
Max Q Clear Time (g_c+I1), s	16.3	10.3	21.4	33.9	6.3	11.3	29.0	21.7
Green Ext Time (p_c), s	0.2	1.7	0.4	4.3	0.0	2.4	0.7	3.5

Intersection Summary	
HCM 6th Ctrl Delay	52.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	1	65	1	1	118
Future Vol, veh/h	12	1	65	1	1	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	18	2	100	2	2	182

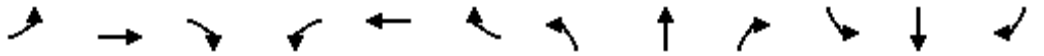
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	287	101	0	0	102	0
Stage 1	101	-	-	-	-	-
Stage 2	186	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	691	938	-	-	1453	-
Stage 1	908	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	690	938	-	-	1453	-
Mov Cap-2 Maneuver	690	-	-	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	830	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	704	1453	-
HCM Lane V/C Ratio	-	-	0.028	0.001	-
HCM Control Delay (s)	-	-	10.3	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	43	877	65	821	50
v/c Ratio	0.12	0.46	0.45	0.36	0.14
Control Delay	12.2	13.8	57.5	6.6	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	13.8	57.5	6.6	10.1
Queue Length 50th (ft)	13	175	45	102	0
Queue Length 95th (ft)	34	244	89	131	30
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	347	1925	291	2644	357
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.12	0.46	0.22	0.31	0.14

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	804	3	60	755	0	11	0	35	0	0	0
Future Volume (veh/h)	40	804	3	60	755	0	11	0	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	874	3	65	821	0	12	0	38			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	438	2039	7	82	2298	0	77	0	242			
Arrive On Green	0.61	0.61	0.61	0.05	0.70	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	614	3345	11	1640	3358	0	360	0	1139			
Grp Volume(v), veh/h	43	428	449	65	821	0	50	0	0			
Grp Sat Flow(s),veh/h/ln	614	1636	1720	1640	1636	0	1499	0	0			
Q Serve(g_s), s	3.2	14.6	14.6	4.1	10.6	0.0	2.9	0.0	0.0			
Cycle Q Clear(g_c), s	3.9	14.6	14.6	4.1	10.6	0.0	2.9	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.24		0.76			
Lane Grp Cap(c), veh/h	438	997	1049	82	2298	0	319	0	0			
V/C Ratio(X)	0.10	0.43	0.43	0.79	0.36	0.00	0.16	0.00	0.00			
Avail Cap(c_a), veh/h	438	997	1049	302	2737	0	319	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.0	10.9	10.9	49.7	6.3	0.0	33.9	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.3	1.3	15.3	0.1	0.0	1.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.7	4.9	2.0	2.6	0.0	1.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	12.3	12.2	64.9	6.4	0.0	35.0	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		920			886			50				
Approach Delay, s/veh		12.1			10.7			35.0				
Approach LOS		B			B			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.8	69.0				78.8		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	6.1	16.6				12.6		4.9				
Green Ext Time (p_c), s	0.1	5.9				5.8		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	90	214	49	859	115	77	582
v/c Ratio	0.19	0.56	0.22	0.63	0.19	0.30	0.38
Control Delay	21.9	28.8	33.1	18.8	15.6	32.6	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	28.8	33.1	18.8	15.6	32.6	13.7
Queue Length 50th (ft)	27	71	17	135	28	27	79
Queue Length 95th (ft)	71	162	57	247	74	79	151
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	850	695	519	3085	1380	582	3131
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.31	0.09	0.28	0.08	0.13	0.19

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	62	17	87	60	41	43	756	101	68	512	0
Future Volume (veh/h)	1	62	17	87	60	41	43	756	101	68	512	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	1	70	19	99	68	47	49	859	115	77	582	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	88	278	75	244	124	68	90	1385	618	122	1450	0
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.05	0.40	0.40	0.07	0.42	0.00
Sat Flow, veh/h	6	1369	368	580	609	335	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	90	0	0	214	0	0	49	859	115	77	582	0
Grp Sat Flow(s),veh/h/ln	1742	0	0	1524	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	3.5	0.0	0.0	1.2	8.3	2.0	1.8	4.9	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	5.3	0.0	0.0	1.2	8.3	2.0	1.8	4.9	0.0
Prop In Lane	0.01		0.21	0.46		0.22	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	441	0	0	435	0	0	90	1385	618	122	1450	0
V/C Ratio(X)	0.20	0.00	0.00	0.49	0.00	0.00	0.55	0.62	0.19	0.63	0.40	0.00
Avail Cap(c_a), veh/h	1192	0	0	1068	0	0	683	5076	2264	765	5242	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.0	0.0	0.0	15.3	0.0	0.0	19.3	9.9	8.0	18.8	8.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.9	0.0	0.0	5.1	0.5	0.1	5.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.7	0.0	0.0	0.5	1.8	0.4	0.7	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	0.0	0.0	16.1	0.0	0.0	24.4	10.4	8.2	24.1	8.6	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	A	C	A	A
Approach Vol, veh/h		90			214			1023			659	
Approach Delay, s/veh		14.2			16.1			10.8			10.4	
Approach LOS		B			B			B			B	

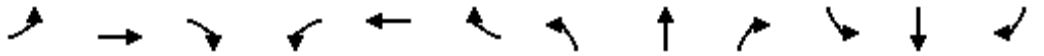
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.0	6.7	22.1		13.0	7.5	21.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	16.5	63.5		26.5	18.5	61.5				
Max Q Clear Time (g_c+I1), s		3.8	3.2	6.9		7.3	3.8	10.3				
Green Ext Time (p_c), s		0.4	0.1	3.7		1.2	0.1	6.5				

Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	296	453	126	120	363	133	219	724	176	109	749
v/c Ratio	0.85	0.46	0.24	0.60	0.53	0.32	0.81	0.70	0.33	0.70	0.90
Control Delay	65.5	35.5	6.1	60.8	44.7	8.9	70.0	38.1	14.6	74.8	50.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	35.5	6.1	60.8	44.7	8.9	70.0	38.1	14.6	74.8	50.3
Queue Length 50th (ft)	217	149	0	90	135	0	164	252	39	83	259
Queue Length 95th (ft)	#354	215	41	147	187	51	#283	322	97	#167	#366
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	404	979	533	404	679	411	307	1166	588	172	918
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.46	0.24	0.30	0.53	0.32	0.71	0.62	0.30	0.63	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	435	121	115	348	128	210	695	169	105	450	269
Future Volume (veh/h)	284	435	121	115	348	128	210	695	169	105	450	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	296	453	126	120	362	133	219	724	176	109	469	280
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	328	1078	481	148	720	321	249	1099	490	134	524	311
Arrive On Green	0.20	0.33	0.33	0.09	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1992	1183
Grp Volume(v), veh/h	296	453	126	120	362	133	219	724	176	109	388	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	18.5	11.3	6.7	7.5	10.2	8.2	13.7	19.9	9.6	6.9	24.0	24.2
Cycle Q Clear(g_c), s	18.5	11.3	6.7	7.5	10.2	8.2	13.7	19.9	9.6	6.9	24.0	24.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	328	1078	481	148	720	321	249	1099	490	134	434	401
V/C Ratio(X)	0.90	0.42	0.26	0.81	0.50	0.41	0.88	0.66	0.36	0.82	0.89	0.90
Avail Cap(c_a), veh/h	430	1078	481	430	720	321	327	1237	552	183	475	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	27.8	26.3	47.3	36.4	35.6	44.0	30.2	26.8	47.9	37.6	37.7
Incr Delay (d2), s/veh	18.4	1.2	1.3	9.9	2.5	3.9	18.8	1.1	0.4	17.9	18.1	20.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	4.3	2.4	3.4	4.1	3.1	6.6	7.4	3.2	3.4	11.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	29.0	27.6	57.3	38.9	39.5	62.8	31.3	27.2	65.8	55.7	57.8
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		875			615			1119			858	
Approach Delay, s/veh		39.3			42.6			36.8			57.9	
Approach LOS		D			D			D			E	

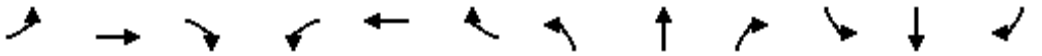
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	39.1	20.5	32.4	25.5	27.6	13.1	39.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	9.5	13.3	15.7	26.2	20.5	12.2	8.9	21.9
Green Ext Time (p_c), s	0.2	2.1	0.3	1.6	0.5	1.8	0.1	4.6

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	1	164	40	10	97	918	22	3	738	50
v/c Ratio	0.93	0.00	0.23	0.41	0.02	0.55	0.71	0.03	0.03	0.78	0.10
Control Delay	117.9	26.0	5.2	64.5	0.0	58.8	29.2	0.1	53.0	40.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.9	26.0	5.2	64.5	0.0	58.8	29.2	0.1	53.0	40.4	0.4
Queue Length 50th (ft)	75	0	0	27	0	63	251	0	2	244	0
Queue Length 95th (ft)	#214	2	48	69	0	127	378	0	13	327	0
Internal Link Dist (ft)		205					1421			2552	
Turn Bay Length (ft)	200		110	120	105	250		275	305		110
Base Capacity (vph)	117	1395	717	101	651	243	1575	753	101	1270	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.00	0.23	0.40	0.02	0.40	0.58	0.03	0.03	0.58	0.08

Intersection Summary

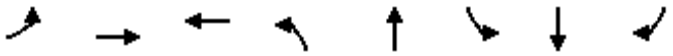
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1	161	39	0	10	95	900	22	3	723	49
Future Volume (veh/h)	107	1	161	39	0	10	95	900	22	3	723	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	109	1	164	40	0	10	97	918	22	3	738	50
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	125	1420	634	55	1281	572	121	1129	504	7	900	401
Arrive On Green	0.08	0.43	0.43	0.03	0.00	0.39	0.07	0.35	0.35	0.00	0.28	0.28
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	109	1	164	40	0	10	97	918	22	3	738	50
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.5	0.0	7.0	2.4	0.0	0.4	5.7	25.1	1.0	0.2	20.8	2.5
Cycle Q Clear(g_c), s	6.5	0.0	7.0	2.4	0.0	0.4	5.7	25.1	1.0	0.2	20.8	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	1420	634	55	1281	572	121	1129	504	7	900	401
V/C Ratio(X)	0.87	0.00	0.26	0.72	0.00	0.02	0.80	0.81	0.04	0.46	0.82	0.12
Avail Cap(c_a), veh/h	125	1420	634	108	1281	572	259	1647	735	108	1348	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	15.7	17.7	47.0	0.0	18.3	44.8	29.3	21.4	48.9	33.4	26.8
Incr Delay (d2), s/veh	44.1	0.0	1.0	16.1	0.0	0.1	11.3	2.1	0.0	42.5	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	2.3	1.2	0.0	0.1	2.6	9.2	0.3	0.1	7.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.0	15.7	18.7	63.1	0.0	18.4	56.1	31.4	21.4	91.4	35.9	26.9
LnGrp LOS	F	B	B	E	A	B	E	C	C	F	D	C
Approach Vol, veh/h		274			50			1037			791	
Approach Delay, s/veh		46.7			54.2			33.5			35.6	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	47.2	11.8	31.5	12.0	43.0	4.9	38.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.4	9.0	7.7	22.8	8.5	2.4	2.2	27.1
Green Ext Time (p_c), s	0.0	0.5	0.1	4.3	0.0	0.0	0.0	5.9

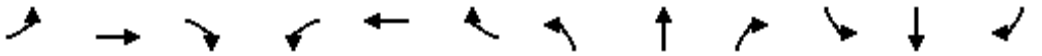
Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	184	311	13	75	1083	1	1217	40
v/c Ratio	0.62	0.68	0.04	0.61	0.54	0.01	0.75	0.05
Control Delay	35.9	21.9	24.0	60.8	10.3	37.0	17.8	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	21.9	24.0	60.8	10.3	37.0	17.8	2.2
Queue Length 50th (ft)	72	59	4	33	116	0	205	0
Queue Length 95th (ft)	139	134	18	#106	240	5	276	8
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	453	614	460	122	3098	256	3187	1427
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.51	0.03	0.61	0.35	0.00	0.38	0.03

Intersection Summary

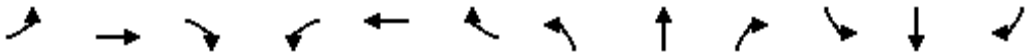
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	874	3	1	986	32
Future Volume (veh/h)	149	0	252	7	0	3	61	874	3	1	986	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1079	4	1	1217	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	427	0	378	136	15	26	94	1837	7	3	1614	720
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.06	0.54	0.54	0.00	0.48	0.48
Sat Flow, veh/h	1323	0	1485	172	61	103	1668	3401	13	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	528	555	1	1217	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	336	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	13.1	0.1	0.0	0.0	2.9	14.1	14.1	0.0	19.6	0.9
Cycle Q Clear(g_c), s	8.7	0.0	13.1	13.2	0.0	0.0	2.9	14.1	14.1	0.0	19.6	0.9
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	427	0	378	178	0	0	94	899	945	3	1614	720
V/C Ratio(X)	0.43	0.00	0.82	0.07	0.00	0.00	0.79	0.59	0.59	0.40	0.75	0.06
Avail Cap(c_a), veh/h	560	0	528	290	0	0	126	1825	1918	265	3926	1751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	23.3	19.7	0.0	0.0	30.8	10.2	10.2	33.0	13.8	9.0
Incr Delay (d2), s/veh	0.7	0.0	7.3	0.2	0.0	0.0	21.8	0.6	0.6	78.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.0	0.2	0.0	0.0	1.6	3.6	3.8	0.1	5.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	30.5	19.8	0.0	0.0	52.6	10.9	10.8	111.5	14.6	9.0
LnGrp LOS	C	A	C	B	A	A	D	B	B	F	B	A
Approach Vol, veh/h		495			13			1158			1258	
Approach Delay, s/veh		27.5			19.8			13.5			14.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.3	8.2	36.6		21.3	4.6	40.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.0	78.0		23.5	10.5	72.5				
Max Q Clear Time (g_c+I1), s		15.1	4.9	21.6		15.2	2.0	16.1				
Green Ext Time (p_c), s		1.8	0.0	10.4		0.0	0.0	7.3				

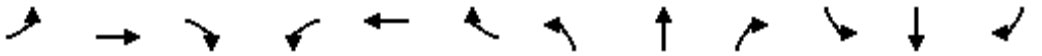
Intersection Summary												
HCM 6th Ctrl Delay			16.3									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	259	261	91	173	204	180	744	69	278	890	104
v/c Ratio	0.82	0.24	0.40	0.71	0.16	0.33	0.90	0.86	0.14	0.93	0.84	0.22
Control Delay	100.4	32.2	5.7	86.1	31.1	5.7	96.7	55.2	0.6	87.3	47.3	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.4	32.2	5.7	86.1	31.1	5.7	96.7	55.2	0.6	87.3	47.3	31.9
Queue Length 50th (ft)	88	83	0	75	54	0	150	306	0	230	352	61
Queue Length 95th (ft)	#198	121	62	#160	84	56	#294	383	1	#406	435	108
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	130	1087	660	136	1086	622	202	968	521	307	1178	526
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.24	0.40	0.67	0.16	0.33	0.89	0.77	0.13	0.91	0.76	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	243	245	86	163	192	169	699	65	261	837	98
Future Volume (veh/h)	100	243	245	86	163	192	169	699	65	261	837	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	106	259	261	91	173	204	180	744	69	278	890	104
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	128	1160	518	112	1128	503	204	852	380	302	1048	467
Arrive On Green	0.08	0.35	0.35	0.07	0.34	0.34	0.12	0.26	0.26	0.18	0.31	0.31
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	106	259	261	91	173	204	180	744	69	278	890	104
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	7.7	6.7	17.0	6.6	4.4	12.9	13.0	26.2	4.4	20.0	30.6	6.3
Cycle Q Clear(g_c), s	7.7	6.7	17.0	6.6	4.4	12.9	13.0	26.2	4.4	20.0	30.6	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	1160	518	112	1128	503	204	852	380	302	1048	467
V/C Ratio(X)	0.83	0.22	0.50	0.81	0.15	0.41	0.88	0.87	0.18	0.92	0.85	0.22
Avail Cap(c_a), veh/h	136	1160	518	142	1128	503	211	1006	449	320	1223	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	28.2	31.5	56.3	28.2	31.0	52.9	43.6	35.5	49.3	39.2	30.9
Incr Delay (d2), s/veh	31.1	0.4	3.5	23.7	0.3	2.4	31.6	7.6	0.2	29.8	5.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.6	6.3	3.4	1.7	4.8	7.0	11.2	1.6	10.4	12.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.9	28.6	35.0	80.1	28.5	33.4	84.5	51.2	35.8	79.1	44.4	31.1
LnGrp LOS	F	C	C	F	C	C	F	D	D	E	D	C
Approach Vol, veh/h		626			468			993			1272	
Approach Delay, s/veh		41.1			40.7			56.2			50.9	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.2	19.5	43.0	13.9	46.0	26.7	35.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	15.5	45.0	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	8.6	19.0	15.0	32.6	9.7	14.9	22.0	28.2
Green Ext Time (p_c), s	0.0	2.3	0.0	4.6	0.0	1.6	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	49.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Future Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	0	20	2	0	0	8	191	1	0	191	59

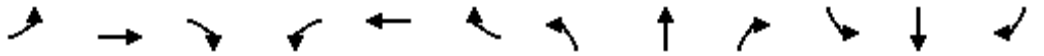
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	20	0	0	259	134	10	230	144	0
Stage 1	-	-	-	-	-	-	130	130	-	4	4	-
Stage 2	-	-	-	-	-	-	129	4	-	226	140	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	-	-	-	1570	-	-	686	749	1060	717	740	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	885	-
Stage 2	-	-	-	-	-	-	865	885	-	768	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1570	-	-	-	748	1060	575	739	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	748	-	575	739	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	884	-
Stage 2	-	-	-	-	-	-	678	884	-	580	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1570	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	-	-	-	7.3	0	-	-
HCM Lane LOS	-	-	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	77	617	17	11	389	134	129	298
v/c Ratio	0.26	0.41	0.02	0.05	0.42	0.26	0.25	0.61
Control Delay	25.6	12.3	0.1	27.8	19.3	6.0	14.8	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	12.3	0.1	27.8	19.3	6.0	14.8	20.5
Queue Length 50th (ft)	20	52	0	3	51	0	25	65
Queue Length 95th (ft)	69	167	1	20	117	38	74	173
Internal Link Dist (ft)		2540			1252		326	432
Turn Bay Length (ft)	310		300	315		155		
Base Capacity (vph)	1002	2642	1194	1002	2642	1212	1195	1119
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.23	0.01	0.01	0.15	0.11	0.11	0.27

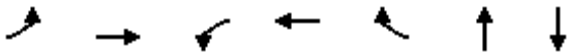
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	586	16	10	370	127	36	62	25	115	65	104
Future Volume (veh/h)	73	586	16	10	370	127	36	62	25	115	65	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	77	617	17	11	389	134	38	65	26	121	68	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	130	1091	487	25	882	394	214	295	95	282	133	156
Arrive On Green	0.08	0.32	0.32	0.01	0.26	0.26	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	285	1042	335	486	471	552
Grp Volume(v), veh/h	77	617	17	11	389	134	129	0	0	298	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1663	0	0	1509	0	0
Q Serve(g_s), s	1.5	5.2	0.3	0.2	3.3	2.5	0.0	0.0	0.0	4.0	0.0	0.0
Cycle Q Clear(g_c), s	1.5	5.2	0.3	0.2	3.3	2.5	2.0	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.29		0.20	0.41		0.37
Lane Grp Cap(c), veh/h	130	1091	487	25	882	394	604	0	0	572	0	0
V/C Ratio(X)	0.59	0.57	0.03	0.44	0.44	0.34	0.21	0.00	0.00	0.52	0.00	0.00
Avail Cap(c_a), veh/h	1329	3878	1730	1329	3878	1730	1901	0	0	1823	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.7	10.0	8.3	17.1	10.9	10.6	9.7	0.0	0.0	11.1	0.0	0.0
Incr Delay (d2), s/veh	4.3	0.5	0.0	11.7	0.3	0.5	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.1	0.0	0.1	0.7	0.5	0.6	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	10.4	8.3	28.8	11.3	11.1	9.9	0.0	0.0	11.8	0.0	0.0
LnGrp LOS	B	B	A	C	B	B	A	A	A	B	A	A
Approach Vol, veh/h		711			534			129			298	
Approach Delay, s/veh		11.4			11.6			9.9			11.8	
Approach LOS		B			B			A			B	

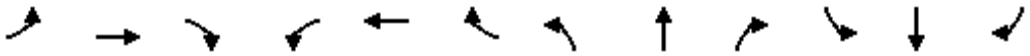
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	15.6		14.4	7.1	13.5		14.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.2	7.2		8.0	3.5	5.3		4.0				
Green Ext Time (p_c), s	0.0	3.9		2.1	0.2	2.7		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		11.4	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	42	597	73	355	78	278	562
v/c Ratio	0.25	0.71	0.41	0.38	0.16	0.39	0.89
Control Delay	54.9	43.2	58.6	34.5	8.8	13.9	41.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.9	43.2	58.6	34.5	8.8	13.9	41.9
Queue Length 50th (ft)	31	220	54	120	0	87	357
Queue Length 95th (ft)	58	237	89	141	26	118	409
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	180	975	191	1074	533	857	770
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.61	0.38	0.33	0.15	0.32	0.73

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	420	40	56	273	60	40	53	121	179	151	103
Future Volume (veh/h)	32	420	40	56	273	60	40	53	121	179	151	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	42	545	52	73	355	78	52	69	157	232	196	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	117	733	70	149	857	382	149	202	399	313	235	155
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1682	3097	295	1682	3357	1497	215	412	814	532	479	316
Grp Volume(v), veh/h	42	295	302	73	355	78	278	0	0	562	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1714	1682	1678	1497	1442	0	0	1327	0	0
Q Serve(g_s), s	2.3	15.8	15.9	4.0	8.6	4.0	0.0	0.0	0.0	26.2	0.0	0.0
Cycle Q Clear(g_c), s	2.3	15.8	15.9	4.0	8.6	4.0	10.7	0.0	0.0	36.9	0.0	0.0
Prop In Lane	1.00		0.17	1.00		1.00	0.19		0.56	0.41		0.24
Lane Grp Cap(c), veh/h	117	397	406	149	857	382	750	0	0	703	0	0
V/C Ratio(X)	0.36	0.74	0.75	0.49	0.41	0.20	0.37	0.00	0.00	0.80	0.00	0.00
Avail Cap(c_a), veh/h	187	509	519	199	1041	464	944	0	0	889	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.2	34.4	34.4	42.3	30.2	28.5	15.3	0.0	0.0	22.4	0.0	0.0
Incr Delay (d2), s/veh	1.8	9.8	9.8	2.5	1.2	0.9	1.1	0.0	0.0	7.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.0	7.2	1.7	3.3	1.4	3.7	0.0	0.0	11.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	44.2	44.3	44.8	31.3	29.4	16.4	0.0	0.0	30.3	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		639			506			278			562	
Approach Delay, s/veh		44.3			33.0			16.4			30.3	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	30.0		54.7	10.8	31.9		54.7				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	6.0	17.9		12.7	4.3	10.6		38.9				
Green Ext Time (p_c), s	0.1	5.1		5.0	0.0	5.1		8.8				

Intersection Summary			
HCM 6th Ctrl Delay		33.6	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1634	-	-	-	1026	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1634	-	-	-	1026	1088
Mov Cap-2 Maneuver	-	-	-	-	1026	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1634	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	752	2	6	526	4	7	0	8	4	0	0
Future Vol, veh/h	0	752	2	6	526	4	7	0	8	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	792	2	6	554	4	7	0	8	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	558	0	0	794	0	0	1082	1363	397	964	1362	279
Stage 1	-	-	-	-	-	-	793	793	-	568	568	-
Stage 2	-	-	-	-	-	-	289	570	-	396	794	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	962	-	-	779	-	-	163	138	583	200	138	698
Stage 1	-	-	-	-	-	-	333	382	-	458	488	-
Stage 2	-	-	-	-	-	-	675	486	-	582	382	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	962	-	-	779	-	-	162	137	583	196	137	698
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	137	-	196	137	-
Stage 1	-	-	-	-	-	-	333	382	-	458	484	-
Stage 2	-	-	-	-	-	-	670	482	-	574	382	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19.6	23.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	263	962	-	-	779	-	-	196
HCM Lane V/C Ratio	0.06	-	-	-	0.008	-	-	0.021
HCM Control Delay (s)	19.6	0	-	-	9.7	-	-	23.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	124	30	16	19	3	15	89	28	7	38	7
Future Vol, veh/h	9	124	30	16	19	3	15	89	28	7	38	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	163	39	21	25	4	20	117	37	9	50	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	8.2	8.9	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	6%	42%	13%
Vol Thru, %	67%	76%	50%	73%
Vol Right, %	21%	18%	8%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	163	38	52
LT Vol	15	9	16	7
Through Vol	89	124	19	38
RT Vol	28	30	3	7
Lane Flow Rate	174	214	50	68
Geometry Grp	1	1	1	1
Degree of Util (X)	0.22	0.268	0.067	0.09
Departure Headway (Hd)	4.568	4.501	4.828	4.743
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	798	741	755
Service Time	2.597	2.528	2.864	2.778
HCM Lane V/C Ratio	0.222	0.268	0.067	0.09
HCM Control Delay	8.9	9.2	8.2	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1.1	0.2	0.3

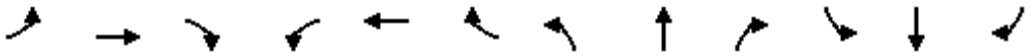
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	0	134	0	0	94	0
Future Vol, veh/h	0	0	0	0	0	0	0	134	0	0	94	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	0	0	0	0	149	0	0	104	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	253	253	104	253	253	149	104	0	0	149	0	0
Stage 1	104	104	-	149	149	-	-	-	-	-	-	-
Stage 2	149	149	-	104	104	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	686	639	932	686	639	879	1445	-	-	1391	-	-
Stage 1	885	796	-	837	761	-	-	-	-	-	-	-
Stage 2	837	761	-	885	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	686	639	932	686	639	879	1445	-	-	1391	-	-
Mov Cap-2 Maneuver	686	639	-	686	639	-	-	-	-	-	-	-
Stage 1	885	796	-	837	761	-	-	-	-	-	-	-
Stage 2	837	761	-	885	796	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

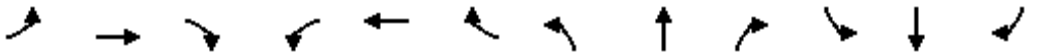
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1445	-	-	-	-	1391	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	104	624	166	193	410	209	160	387	195	127	307	43
v/c Ratio	0.49	0.70	0.42	0.68	0.35	0.40	0.60	0.46	0.52	0.53	0.74	0.12
Control Delay	49.8	36.2	33.6	53.5	27.5	30.9	49.0	32.6	37.4	48.6	46.3	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	36.2	33.6	53.5	27.5	30.9	49.0	32.6	37.4	48.6	46.3	31.9
Queue Length 50th (ft)	57	172	80	105	97	97	87	100	97	69	165	20
Queue Length 95th (ft)	128	272	161	#263	174	201	180	173	198	148	304	55
Internal Link Dist (ft)		349			1207			1910			486	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	311	1550	693	311	1550	693	392	1153	515	392	604	513
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.40	0.24	0.62	0.26	0.30	0.41	0.34	0.38	0.32	0.51	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	568	151	176	373	190	146	352	177	116	279	39
Future Volume (veh/h)	95	568	151	176	373	190	146	352	177	116	279	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	104	624	166	193	410	209	160	387	195	127	307	43
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	908	405	241	1118	499	206	824	368	166	392	332
Arrive On Green	0.08	0.26	0.26	0.14	0.32	0.32	0.12	0.23	0.23	0.09	0.21	0.21
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	104	624	166	193	410	209	160	387	195	127	307	43
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1856	1572
Q Serve(g_s), s	3.7	10.3	5.7	6.8	5.8	6.8	5.7	6.1	7.0	4.5	10.1	1.4
Cycle Q Clear(g_c), s	3.7	10.3	5.7	6.8	5.8	6.8	5.7	6.1	7.0	4.5	10.1	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	908	405	241	1118	499	206	824	368	166	392	332
V/C Ratio(X)	0.77	0.69	0.41	0.80	0.37	0.42	0.78	0.47	0.53	0.77	0.78	0.13
Avail Cap(c_a), veh/h	424	2100	937	424	2100	937	533	1555	694	533	818	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	21.6	19.9	27.1	17.1	17.4	27.7	21.3	21.7	28.6	24.1	20.7
Incr Delay (d2), s/veh	8.7	0.9	0.7	6.1	0.2	0.6	6.2	0.4	1.2	7.2	3.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.6	1.9	2.9	1.9	2.2	2.5	2.3	2.4	2.1	4.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	22.6	20.6	33.1	17.3	17.9	33.9	21.7	22.8	35.7	27.6	20.8
LnGrp LOS	D	C	C	C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		894			812			742			477	
Approach Delay, s/veh		24.0			21.2			24.7			29.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	21.1	12.0	18.1	9.5	25.0	10.6	19.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	8.8	12.3	7.7	12.1	5.7	8.8	6.5	9.0
Green Ext Time (p_c), s	0.3	4.3	0.3	1.5	0.1	3.1	0.2	2.8

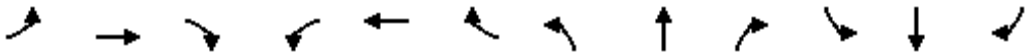
Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	116.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	38	93	71	2	88	37	549	105	89	568	4
Future Vol, veh/h	57	38	93	71	2	88	37	549	105	89	568	4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	76	51	124	95	3	117	49	732	140	119	757	5
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

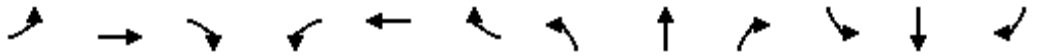
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	46.8	21.7	138.8	136.1
HCM LOS	E	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	64%	20%	0%	2%	0%	100%	98%
Vol Right, %	0%	0%	36%	49%	0%	98%	0%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	366	288	188	71	90	89	379	193
LT Vol	37	0	0	57	71	0	89	0	0
Through Vol	0	366	183	38	0	2	0	379	189
RT Vol	0	0	105	93	0	88	0	0	4
Lane Flow Rate	49	488	384	251	95	120	119	505	258
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.141	1.326	1.016	0.777	0.319	0.364	0.341	1.38	0.704
Departure Headway (Hd)	10.895	10.369	10.101	12.101	13.208	11.966	10.852	10.327	10.312
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	331	356	361	301	274	302	333	358	353
Service Time	8.595	8.069	7.801	9.801	10.908	9.666	8.552	8.027	8.012
HCM Lane V/C Ratio	0.148	1.371	1.064	0.834	0.347	0.397	0.357	1.411	0.731
HCM Control Delay	15.4	194	84.5	46.8	22	21.4	19.1	215.7	34.2
HCM Lane LOS	C	F	F	E	C	C	C	F	D
HCM 95th-tile Q	0.5	22	12	6	1.3	1.6	1.5	24.1	5.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	12	258	69	11	2	86	682	111	7	807	49
v/c Ratio	0.51	0.02	0.57	0.35	0.03	0.01	0.40	0.45	0.16	0.06	0.72	0.10
Control Delay	43.8	27.1	35.7	45.4	31.6	31.5	44.8	17.5	16.2	46.7	30.0	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	27.1	35.7	45.4	31.6	31.5	44.8	17.5	16.2	46.7	30.0	23.3
Queue Length 50th (ft)	70	5	123	34	5	1	43	115	31	4	197	18
Queue Length 95th (ft)	141	19	216	84	20	7	98	213	80	18	292	47
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	432	1096	932	259	961	817	308	2077	929	123	1728	773
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.01	0.28	0.27	0.01	0.00	0.28	0.33	0.12	0.06	0.47	0.06

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	10	217	58	9	2	72	573	93	6	678	41
Future Volume (veh/h)	119	10	217	58	9	2	72	573	93	6	678	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	142	12	258	69	11	2	86	682	111	7	807	49
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	388	329	104	302	256	117	1371	612	16	1170	522
Arrive On Green	0.11	0.21	0.21	0.06	0.16	0.16	0.07	0.39	0.39	0.01	0.33	0.33
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	142	12	258	69	11	2	86	682	111	7	807	49
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.3	0.3	8.6	2.1	0.3	0.1	2.6	8.1	2.6	0.2	10.9	1.2
Cycle Q Clear(g_c), s	4.3	0.3	8.6	2.1	0.3	0.1	2.6	8.1	2.6	0.2	10.9	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	388	329	104	302	256	117	1371	612	16	1170	522
V/C Ratio(X)	0.76	0.03	0.79	0.66	0.04	0.01	0.74	0.50	0.18	0.43	0.69	0.09
Avail Cap(c_a), veh/h	560	1479	1253	336	1244	1054	400	2714	1211	160	2235	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	17.2	20.4	25.2	19.3	19.2	25.1	12.6	10.9	27.0	15.8	12.5
Incr Delay (d2), s/veh	6.4	0.0	4.1	7.0	0.0	0.0	8.7	0.3	0.1	17.2	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.1	3.1	1.0	0.1	0.0	1.3	2.6	0.7	0.2	3.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	17.2	24.6	32.3	19.3	19.2	33.8	12.9	11.0	44.2	16.5	12.6
LnGrp LOS	C	B	C	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		412			82			879			863	
Approach Delay, s/veh		26.3			30.2			14.7			16.5	
Approach LOS		C			C			B			B	

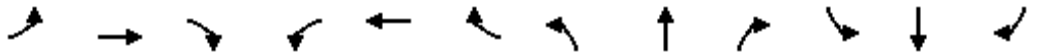
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	16.0	8.1	22.8	10.3	13.5	5.0	26.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	4.1	10.6	4.6	12.9	6.3	2.3	2.2	10.1
Green Ext Time (p_c), s	0.1	1.0	0.1	5.4	0.3	0.0	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	178	786	56	264	117	129	579	97	160	860	113
v/c Ratio	0.70	0.62	0.66	0.30	0.22	0.75	0.60	0.17	0.67	0.78	0.23
Control Delay	58.1	26.6	85.7	34.1	2.1	74.6	35.4	0.7	56.6	36.8	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	26.6	85.7	34.1	2.1	74.6	35.4	0.7	56.6	36.8	26.4
Queue Length 50th (ft)	113	195	37	73	0	85	176	0	101	270	55
Queue Length 95th (ft)	191	285	#109	123	6	#194	232	0	172	319	92
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	321	1277	85	872	522	171	1377	722	330	1695	758
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.62	0.66	0.30	0.22	0.75	0.42	0.13	0.48	0.51	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



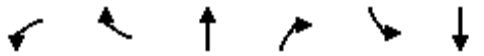
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	430	246	48	227	101	111	498	83	138	740	97
Future Volume (veh/h)	153	430	246	48	227	101	111	498	83	138	740	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	178	500	286	56	264	117	129	579	97	160	860	113
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	212	800	456	71	1024	457	157	1011	451	193	1083	483
Arrive On Green	0.12	0.38	0.38	0.04	0.30	0.30	0.09	0.29	0.29	0.11	0.31	0.31
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	178	407	379	56	264	117	129	579	97	160	860	113
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	10.0	19.1	19.2	3.2	5.8	5.8	7.3	14.2	4.7	9.0	22.6	5.4
Cycle Q Clear(g_c), s	10.0	19.1	19.2	3.2	5.8	5.8	7.3	14.2	4.7	9.0	22.6	5.4
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	652	604	71	1024	457	157	1011	451	193	1083	483
V/C Ratio(X)	0.84	0.62	0.63	0.79	0.26	0.26	0.82	0.57	0.22	0.83	0.79	0.23
Avail Cap(c_a), veh/h	328	652	604	87	1024	457	174	1398	624	336	1721	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	25.4	25.4	47.4	26.8	26.8	44.6	30.1	26.7	43.4	31.4	25.5
Incr Delay (d2), s/veh	11.1	4.5	4.9	30.9	0.6	1.4	23.8	0.5	0.2	8.7	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	7.9	7.4	1.9	2.3	2.2	4.1	5.7	1.7	4.2	9.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	29.9	30.3	78.3	27.4	28.2	68.4	30.6	26.9	52.1	32.7	25.7
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		964			437			805			1133	
Approach Delay, s/veh		34.5			34.1			36.2			34.8	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	42.0	13.5	35.6	16.6	33.9	15.6	33.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.2	21.2	9.3	24.6	12.0	7.8	11.0	16.2
Green Ext Time (p_c), s	0.0	3.9	0.0	6.5	0.2	1.6	0.2	4.1

Intersection Summary	
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	38	87	871	99	1034
v/c Ratio	0.09	0.20	0.45	0.56	0.42
Control Delay	37.4	8.9	16.8	63.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	8.9	16.8	63.0	8.5
Queue Length 50th (ft)	23	0	196	74	163
Queue Length 95th (ft)	54	42	271	127	201
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	401	426	1929	299	2438
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.20	0.45	0.33	0.42

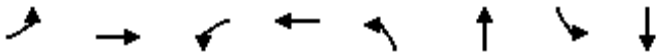
Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	78	700	84	89	931
Future Volume (veh/h)	34	78	700	84	89	931
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	38	87	778	93	99	1034
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1864	223	124	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3264	379	1767	3618
Grp Volume(v), veh/h	38	87	432	439	99	1034
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1787	1767	1763
Q Serve(g_s), s	2.0	5.4	16.1	16.1	6.6	15.1
Cycle Q Clear(g_c), s	2.0	5.4	16.1	16.1	6.6	15.1
Prop In Lane	1.00	1.00		0.21	1.00	
Lane Grp Cap(c), veh/h	405	360	1036	1051	124	2453
V/C Ratio(X)	0.09	0.24	0.42	0.42	0.80	0.42
Avail Cap(c_a), veh/h	405	360	1036	1051	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	37.7	13.5	13.5	54.9	7.9
Incr Delay (d2), s/veh	0.5	1.6	1.2	1.2	10.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.3	6.3	6.4	3.3	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.9	39.3	14.7	14.7	65.8	8.4
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	125		871			1133
Approach Delay, s/veh	38.6		14.7			13.4
Approach LOS	D		B			B

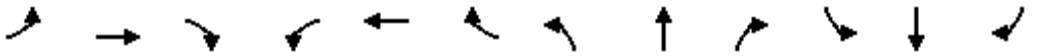
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			88.0		32.0	12.9	75.1
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s			17.1		7.4	8.6	18.1
Green Ext Time (p_c), s			8.6		0.3	0.2	6.0

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	999	42	1075	40	68	28	22
v/c Ratio	0.06	0.43	0.18	0.41	0.14	0.26	0.13	0.09
Control Delay	32.3	11.6	30.5	7.7	27.1	28.8	32.0	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	11.6	30.5	7.7	27.1	28.8	32.0	22.4
Queue Length 50th (ft)	3	116	13	63	12	20	9	3
Queue Length 95th (ft)	21	251	49	257	48	66	38	25
Internal Link Dist (ft)		1246		2538		560		253
Turn Bay Length (ft)	150		150		150		150	
Base Capacity (vph)	186	3400	277	3432	319	667	216	666
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.29	0.15	0.31	0.13	0.10	0.13	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	861	48	38	941	38	36	18	44	26	11	9
Future Volume (veh/h)	10	861	48	38	941	38	36	18	44	26	11	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	11	946	53	42	1034	41	40	20	48	28	12	10
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	25	1413	79	81	1547	61	78	48	114	59	82	68
Arrive On Green	0.01	0.42	0.42	0.05	0.45	0.45	0.04	0.10	0.10	0.03	0.09	0.09
Sat Flow, veh/h	1781	3394	190	1767	3457	137	1767	488	1171	1781	943	786
Grp Volume(v), veh/h	11	491	508	42	527	548	40	0	68	28	0	22
Grp Sat Flow(s),veh/h/ln	1781	1763	1821	1767	1763	1831	1767	0	1660	1781	0	1729
Q Serve(g_s), s	0.3	10.0	10.0	1.0	10.4	10.4	1.0	0.0	1.7	0.7	0.0	0.5
Cycle Q Clear(g_c), s	0.3	10.0	10.0	1.0	10.4	10.4	1.0	0.0	1.7	0.7	0.0	0.5
Prop In Lane	1.00		0.10	1.00		0.07	1.00		0.71	1.00		0.45
Lane Grp Cap(c), veh/h	25	734	758	81	789	820	78	0	162	59	0	150
V/C Ratio(X)	0.43	0.67	0.67	0.52	0.67	0.67	0.52	0.00	0.42	0.48	0.00	0.15
Avail Cap(c_a), veh/h	202	2778	2870	300	2877	2989	276	0	718	234	0	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	10.4	10.4	20.6	9.6	9.6	20.7	0.0	18.8	21.0	0.0	18.7
Incr Delay (d2), s/veh	11.1	1.1	1.0	5.1	1.0	0.9	5.2	0.0	1.7	5.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.4	0.4	2.3	2.4	0.5	0.0	0.7	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	11.5	11.5	25.7	10.6	10.6	25.9	0.0	20.5	26.9	0.0	19.1
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	B
Approach Vol, veh/h		1010			1117			108			50	
Approach Delay, s/veh		11.7			11.1			22.5			23.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	22.9	6.4	8.3	5.1	24.3	6.0	8.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	69.6	6.9	18.0	5.0	72.1	5.8	19.1
Max Q Clear Time (g_c+I1), s	3.0	12.0	3.0	2.5	2.3	12.4	2.7	3.7
Green Ext Time (p_c), s	0.0	6.4	0.0	0.0	0.0	7.2	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	194	3	62	137	35	1	12	62	17	11	6
Future Vol, veh/h	17	194	3	62	137	35	1	12	62	17	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	20	223	3	71	157	40	1	14	71	20	13	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	197	0	0	226	0	0	594	604	225	626	585	177
Stage 1	-	-	-	-	-	-	265	265	-	319	319	-
Stage 2	-	-	-	-	-	-	329	339	-	307	266	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1382	-	-	1348	-	-	418	414	817	398	424	869
Stage 1	-	-	-	-	-	-	742	691	-	695	655	-
Stage 2	-	-	-	-	-	-	686	642	-	705	691	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1382	-	-	1348	-	-	384	387	817	336	396	869
Mov Cap-2 Maneuver	-	-	-	-	-	-	384	387	-	336	396	-
Stage 1	-	-	-	-	-	-	732	681	-	685	620	-
Stage 2	-	-	-	-	-	-	632	608	-	621	681	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.1	10.9	15
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	384	692	1382	-	-	1348	-	-	399
HCM Lane V/C Ratio	0.003	0.123	0.014	-	-	0.053	-	-	0.098
HCM Control Delay (s)	14.4	10.9	7.6	-	-	7.8	-	-	15
HCM Lane LOS	B	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	92	28	44	39	1	26	0	59	0	1	1
Future Vol, veh/h	0	92	28	44	39	1	26	0	59	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	103	31	49	44	1	29	0	66	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	134	0	0	263	262	119	295	277	45
Stage 1	-	-	-	-	-	-	119	119	-	143	143	-
Stage 2	-	-	-	-	-	-	144	143	-	152	134	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1570	-	-	1457	-	-	692	645	935	659	632	1028
Stage 1	-	-	-	-	-	-	888	799	-	862	780	-
Stage 2	-	-	-	-	-	-	861	780	-	853	787	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1570	-	-	1457	-	-	673	623	935	596	611	1028
Mov Cap-2 Maneuver	-	-	-	-	-	-	673	623	-	596	611	-
Stage 1	-	-	-	-	-	-	888	799	-	862	753	-
Stage 2	-	-	-	-	-	-	830	753	-	793	787	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4	9.9	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	836	1570	-	-	1457	-	-	766
HCM Lane V/C Ratio	0.114	-	-	-	0.034	-	-	0.003
HCM Control Delay (s)	9.9	0	-	-	7.6	0	-	9.7
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

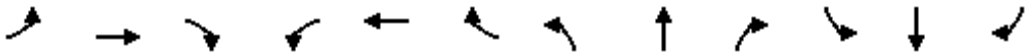
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	0	0	86	0	0	71	0
Future Vol, veh/h	0	0	0	1	0	0	0	86	0	0	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	1	0	0	0	92	0	0	76	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	168	168	76	168	168	92	76	0	0	92	0	0
Stage 1	76	76	-	92	92	-	-	-	-	-	-	-
Stage 2	92	92	-	76	76	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	800	728	991	800	728	971	1536	-	-	1515	-	-
Stage 1	938	836	-	920	823	-	-	-	-	-	-	-
Stage 2	920	823	-	938	836	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	800	728	991	800	728	971	1536	-	-	1515	-	-
Mov Cap-2 Maneuver	800	728	-	800	728	-	-	-	-	-	-	-
Stage 1	938	836	-	920	823	-	-	-	-	-	-	-
Stage 2	920	823	-	938	836	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.5	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1536	-	-	-	800	1515	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	0	-	-	0	9.5	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

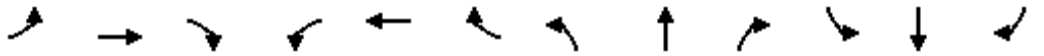


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	692	299	122	595	97	404	250	204	48	89	91
v/c Ratio	0.53	0.79	0.34	0.59	0.58	0.11	3.39	0.67	0.42	0.54	0.16	0.25
Control Delay	65.6	32.2	6.5	55.2	20.0	3.4	1110.1	47.3	7.8	72.0	36.0	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.6	32.2	6.5	55.2	20.0	3.4	1110.1	47.3	7.8	72.0	36.0	3.5
Queue Length 50th (ft)	39	366	25	76	257	0	~471	155	0	31	26	0
Queue Length 95th (ft)	#101	#688	92	142	435	27	#710	239	57	#92	48	15
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	117	880	868	273	1024	914	119	690	715	89	1250	647
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.79	0.34	0.45	0.58	0.11	3.39	0.36	0.29	0.54	0.07	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



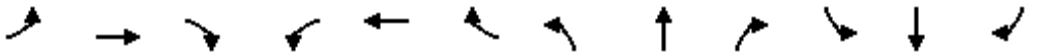
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	637	275	112	547	89	372	230	188	44	82	84
Future Volume (veh/h)	56	637	275	112	547	89	372	230	188	44	82	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	692	299	122	595	97	404	250	204	48	89	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	971	823	153	1049	889	125	316	268	67	486	217
Arrive On Green	0.04	0.52	0.52	0.09	0.56	0.56	0.07	0.17	0.17	0.04	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	61	692	299	122	595	97	404	250	204	48	89	91
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	3.2	27.0	10.7	6.4	19.6	2.7	6.7	12.3	11.7	2.6	2.1	5.0
Cycle Q Clear(g_c), s	3.2	27.0	10.7	6.4	19.6	2.7	6.7	12.3	11.7	2.6	2.1	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	971	823	153	1049	889	125	316	268	67	486	217
V/C Ratio(X)	0.78	0.71	0.36	0.80	0.57	0.11	3.24	0.79	0.76	0.72	0.18	0.42
Avail Cap(c_a), veh/h	123	971	823	285	1049	889	125	717	608	93	1300	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	17.6	13.6	42.9	13.5	9.8	44.5	38.1	37.9	45.5	36.6	37.8
Incr Delay (d2), s/veh	15.0	4.4	1.2	9.0	2.2	0.2	1028.4	4.4	4.4	14.6	0.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.8	3.7	3.0	7.3	0.9	38.5	5.7	4.7	1.4	0.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	22.0	14.9	51.9	15.7	10.1	1072.9	42.6	42.4	60.1	36.8	39.1
LnGrp LOS	E	C	B	D	B	B	F	D	D	E	D	D
Approach Vol, veh/h		1052			814			858			228	
Approach Delay, s/veh		22.2			20.5			527.6			42.6	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	54.2	11.2	17.6	8.7	58.2	8.1	20.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.4	29.0	8.7	7.0	5.2	21.6	4.6	14.3
Green Ext Time (p_c), s	0.1	4.6	0.0	0.7	0.0	3.9	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	170.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	38	274	115	183	230	554	268	37	372
v/c Ratio	0.41	0.47	0.65	0.24	0.78	0.74	0.34	0.39	0.42
Control Delay	68.6	30.5	67.5	23.6	64.2	37.7	4.9	67.0	38.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.6	30.5	67.5	23.6	64.2	37.7	4.9	67.0	38.0
Queue Length 50th (ft)	29	147	86	91	171	376	6	28	123
Queue Length 95th (ft)	67	232	149	149	255	522	61	65	176
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	94	587	209	749	363	750	790	97	878
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.47	0.55	0.24	0.63	0.74	0.34	0.38	0.42

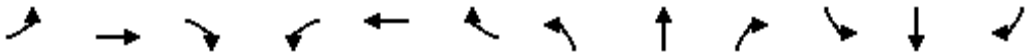
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	136	121	108	135	37	216	521	252	35	318	32
Future Volume (veh/h)	36	136	121	108	135	37	216	521	252	35	318	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	145	129	115	144	39	230	554	268	37	338	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	308	274	142	549	149	262	739	626	54	908	91
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.28	0.28
Sat Flow, veh/h	1781	912	812	1781	1417	384	1781	1870	1585	1781	3262	326
Grp Volume(v), veh/h	38	0	274	115	0	183	230	554	268	37	183	189
Grp Sat Flow(s),veh/h/ln	1781	0	1724	1781	0	1801	1781	1870	1585	1781	1777	1812
Q Serve(g_s), s	2.4	0.0	14.3	7.3	0.0	7.9	14.5	29.2	14.1	2.4	9.5	9.6
Cycle Q Clear(g_c), s	2.4	0.0	14.3	7.3	0.0	7.9	14.5	29.2	14.1	2.4	9.5	9.6
Prop In Lane	1.00		0.47	1.00		0.21	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	55	0	583	142	0	697	262	739	626	54	494	504
V/C Ratio(X)	0.70	0.00	0.47	0.81	0.00	0.26	0.88	0.75	0.43	0.69	0.37	0.37
Avail Cap(c_a), veh/h	95	0	583	210	0	697	366	739	626	98	494	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	29.8	51.8	0.0	23.9	47.8	29.8	25.2	55.0	33.2	33.3
Incr Delay (d2), s/veh	14.8	0.0	2.7	13.6	0.0	0.9	16.1	6.9	2.1	14.4	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	6.1	3.7	0.0	3.4	7.4	13.7	5.4	1.2	4.2	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	0.0	32.5	65.4	0.0	24.9	63.9	36.7	27.4	69.4	35.4	35.4
LnGrp LOS	E	A	C	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		312			298			1052			409	
Approach Delay, s/veh		37.1			40.5			40.3			38.5	
Approach LOS		D			D			D			D	

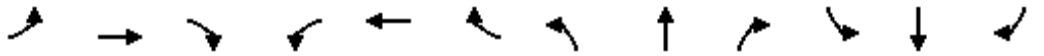
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.2	21.3	36.3	8.0	48.8	8.0	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.3	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	16.3	16.5	11.6	4.4	9.9	4.4	31.2
Green Ext Time (p_c), s	0.1	1.4	0.3	1.7	0.0	1.0	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	135	434	89	113	238	233	192	857	152	228	459	68
v/c Ratio	0.68	0.38	0.16	0.63	0.22	0.36	0.77	0.86	0.30	0.79	0.43	0.14
Control Delay	77.2	39.3	8.2	77.0	38.2	6.5	78.1	56.2	21.4	75.8	39.3	36.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.2	39.3	8.2	77.0	38.2	6.5	78.1	56.2	21.4	75.8	39.3	36.1
Queue Length 50th (ft)	119	163	0	100	85	0	168	380	51	199	172	44
Queue Length 95th (ft)	201	237	44	175	135	66	271	495	117	310	236	87
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	259	1131	566	233	1089	648	312	1184	580	366	1290	577
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.38	0.16	0.48	0.22	0.36	0.62	0.72	0.26	0.62	0.36	0.12

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	425	87	111	233	228	188	840	149	223	450	67
Future Volume (veh/h)	132	425	87	111	233	228	188	840	149	223	450	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	434	89	113	238	233	192	857	152	228	459	68
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1227	547	139	1180	526	222	1014	452	259	1088	485
Arrive On Green	0.09	0.35	0.35	0.08	0.33	0.33	0.12	0.29	0.29	0.15	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	135	434	89	113	238	233	192	857	152	228	459	68
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.2	11.2	4.8	7.7	5.9	14.2	13.0	28.0	9.3	15.4	12.7	3.8
Cycle Q Clear(g_c), s	9.2	11.2	4.8	7.7	5.9	14.2	13.0	28.0	9.3	15.4	12.7	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	163	1227	547	139	1180	526	222	1014	452	259	1088	485
V/C Ratio(X)	0.83	0.35	0.16	0.81	0.20	0.44	0.87	0.84	0.34	0.88	0.42	0.14
Avail Cap(c_a), veh/h	282	1227	547	253	1180	526	340	1284	573	398	1400	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	30.1	28.0	55.9	29.4	32.2	52.9	41.4	34.8	51.6	34.0	31.0
Incr Delay (d2), s/veh	10.3	0.8	0.6	10.7	0.4	2.7	13.7	4.4	0.4	13.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.7	1.9	3.7	2.5	5.7	6.5	12.4	3.6	7.7	5.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	30.9	28.6	66.6	29.8	34.9	66.6	45.8	35.2	65.3	34.3	31.1
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		658			584			1201			755	
Approach Delay, s/veh		37.6			39.0			47.8			43.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	47.0	19.8	42.2	15.7	45.4	22.4	39.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	42.5	23.5	48.5	19.5	40.5	27.5	44.5
Max Q Clear Time (g_c+I1), s	9.7	13.2	15.0	14.7	11.2	16.2	17.4	30.0
Green Ext Time (p_c), s	0.1	2.8	0.3	3.1	0.2	2.0	0.4	5.2

Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	1	118	16	5	83
Future Vol, veh/h	11	1	118	16	5	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	12	1	131	18	6	92

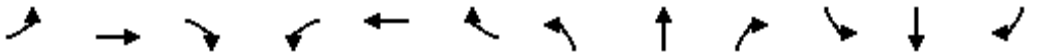
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	244	140	0	0	149	0
Stage 1	140	-	-	-	-	-
Stage 2	104	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	729	890	-	-	1391	-
Stage 1	870	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	725	890	-	-	1391	-
Mov Cap-2 Maneuver	725	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	898	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	736	1391	-
HCM Lane V/C Ratio	-	-	0.018	0.004	-
HCM Control Delay (s)	-	-	10	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	41	965	30	789	77
v/c Ratio	0.11	0.50	0.28	0.37	0.20
Control Delay	11.4	13.6	57.1	7.7	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	13.6	57.1	7.7	11.0
Queue Length 50th (ft)	12	206	22	109	2
Queue Length 95th (ft)	32	276	53	140	43
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	360	1941	177	2425	386
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.50	0.17	0.33	0.20

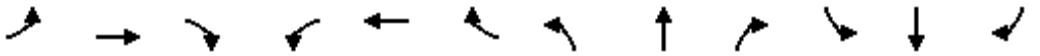
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	899	8	28	742	0	4	0	69	0	0	0
Future Volume (veh/h)	39	899	8	28	742	0	4	0	69	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	956	9	30	789	0	4	0	73			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	426	2006	19	44	2192	0	17	0	313			
Arrive On Green	0.62	0.62	0.62	0.03	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	616	3236	30	1598	3272	0	74	0	1356			
Grp Volume(v), veh/h	41	471	494	30	789	0	77	0	0			
Grp Sat Flow(s),veh/h/ln	616	1594	1672	1598	1594	0	1430	0	0			
Q Serve(g_s), s	3.3	17.6	17.6	2.1	11.3	0.0	4.8	0.0	0.0			
Cycle Q Clear(g_c), s	7.1	17.6	17.6	2.1	11.3	0.0	4.8	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.05		0.95			
Lane Grp Cap(c), veh/h	426	988	1037	44	2192	0	330	0	0			
V/C Ratio(X)	0.10	0.48	0.48	0.69	0.36	0.00	0.23	0.00	0.00			
Avail Cap(c_a), veh/h	426	988	1037	181	2466	0	330	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.2	11.3	11.3	53.3	7.2	0.0	34.6	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.6	1.6	17.6	0.1	0.0	1.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.6	5.8	1.0	2.9	0.0	1.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.6	13.0	12.9	70.9	7.3	0.0	36.2	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		1006			819			77				
Approach Delay, s/veh		12.8			9.6			36.2				
Approach LOS		B			A			D				
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.5	73.0				80.5		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	4.1	19.6				13.3		6.8				
Green Ext Time (p_c), s	0.0	6.7				5.5		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	112	310	12	524	121	121	757
v/c Ratio	0.20	0.65	0.07	0.53	0.28	0.41	0.50
Control Delay	18.1	27.2	35.7	23.4	23.2	32.7	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	27.2	35.7	23.4	23.2	32.7	14.4
Queue Length 50th (ft)	30	101	4	88	36	42	85
Queue Length 95th (ft)	79	228	24	185	100	116	237
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	1075	896	279	2538	1135	573	2857
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.35	0.04	0.21	0.11	0.21	0.26

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	63	36	105	59	112	11	466	108	108	673	1
Future Volume (veh/h)	1	63	36	105	59	112	11	466	108	108	673	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	71	40	118	66	126	12	524	121	121	756	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	92	308	172	251	125	172	26	920	411	156	1209	2
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.02	0.28	0.28	0.09	0.35	0.35
Sat Flow, veh/h	3	1054	587	433	426	588	1668	3328	1485	1668	3411	5
Grp Volume(v), veh/h	112	0	0	310	0	0	12	524	121	121	369	388
Grp Sat Flow(s),veh/h/ln	1644	0	0	1447	0	0	1668	1664	1485	1668	1664	1751
Q Serve(g_s), s	0.0	0.0	0.0	5.3	0.0	0.0	0.3	5.4	2.6	2.8	7.4	7.4
Cycle Q Clear(g_c), s	2.1	0.0	0.0	7.6	0.0	0.0	0.3	5.4	2.6	2.8	7.4	7.4
Prop In Lane	0.01		0.36	0.38		0.41	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	572	0	0	548	0	0	26	920	411	156	590	621
V/C Ratio(X)	0.20	0.00	0.00	0.57	0.00	0.00	0.46	0.57	0.29	0.78	0.63	0.63
Avail Cap(c_a), veh/h	1669	0	0	1488	0	0	396	4034	1799	813	2433	2560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	0.0	0.0	12.6	0.0	0.0	19.5	12.4	11.4	17.7	10.7	10.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.9	0.0	0.0	12.2	0.6	0.4	8.0	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.1	0.0	0.0	0.2	1.3	0.6	1.1	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9	0.0	0.0	13.5	0.0	0.0	31.7	13.0	11.8	25.7	11.8	11.8
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		112			310			657			878	
Approach Delay, s/veh		10.9			13.5			13.1			13.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.2	5.1	18.7		16.2	8.2	15.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	9.5	58.5		38.5	19.5	48.5				
Max Q Clear Time (g_c+I1), s		4.1	2.3	9.4		9.6	4.8	7.4				
Green Ext Time (p_c), s		0.7	0.0	4.4		2.2	0.2	3.7				

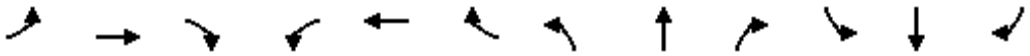
Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	276	465	272	260	468	108	91	478	284	80	867
v/c Ratio	1.01	0.50	0.45	0.95	0.51	0.22	0.54	0.51	0.49	0.51	0.94
Control Delay	104.8	36.0	6.5	91.0	36.1	7.4	60.0	35.5	10.8	59.9	54.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.8	36.0	6.5	91.0	36.1	7.4	60.0	35.5	10.8	59.9	54.3
Queue Length 50th (ft)	~216	148	0	190	150	0	64	152	28	56	303
Queue Length 95th (ft)	#406	213	66	#377	215	43	117	217	109	107	#469
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	273	921	604	273	921	488	273	940	583	273	925
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.50	0.45	0.95	0.51	0.22	0.33	0.51	0.49	0.29	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	432	253	242	435	100	85	445	264	74	537	270
Future Volume (veh/h)	257	432	253	242	435	100	85	445	264	74	537	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	465	272	260	468	108	91	478	284	80	577	290
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	282	949	423	282	949	423	113	970	432	100	608	305
Arrive On Green	0.18	0.30	0.30	0.18	0.30	0.30	0.07	0.30	0.30	0.06	0.29	0.29
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2073	1041
Grp Volume(v), veh/h	276	465	272	260	468	108	91	478	284	80	448	419
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	18.5	12.9	17.9	17.2	13.0	6.2	6.0	13.2	18.7	5.3	29.6	29.6
Cycle Q Clear(g_c), s	18.5	12.9	17.9	17.2	13.0	6.2	6.0	13.2	18.7	5.3	29.6	29.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	282	949	423	282	949	423	113	970	432	100	472	442
V/C Ratio(X)	0.98	0.49	0.64	0.92	0.49	0.26	0.80	0.49	0.66	0.80	0.95	0.95
Avail Cap(c_a), veh/h	282	949	423	282	949	423	282	970	432	282	474	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	31.5	33.3	44.0	31.5	29.1	49.7	31.1	33.0	50.2	37.5	37.5
Incr Delay (d2), s/veh	47.1	1.8	7.3	33.4	1.8	1.5	12.2	0.4	3.6	13.3	28.7	30.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	4.9	6.6	9.1	5.0	2.2	2.7	4.8	6.5	2.4	14.5	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.7	33.3	40.6	77.4	33.4	30.6	61.9	31.5	36.6	63.5	66.2	67.7
LnGrp LOS	F	C	D	E	C	C	E	C	D	E	E	E
Approach Vol, veh/h		1013			836			853			947	
Approach Delay, s/veh		51.2			46.7			36.4			66.6	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	36.5	12.1	36.3	23.5	36.5	11.3	37.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	32.0	19.0	32.0	19.0	32.0	19.0	32.0
Max Q Clear Time (g_c+I1), s	19.2	19.9	8.0	31.6	20.5	15.0	7.3	20.7
Green Ext Time (p_c), s	0.0	2.9	0.1	0.2	0.0	2.7	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	22	67	13	207	958	16	4	1043	121
v/c Ratio	0.24	0.09	0.15	0.96	0.60	0.02	0.05	0.94	0.21
Control Delay	59.9	0.3	58.3	102.5	23.6	0.1	55.5	53.3	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.9	0.3	58.3	102.5	23.6	0.1	55.5	53.3	4.4
Queue Length 50th (ft)	17	0	10	~162	265	0	3	413	0
Queue Length 95th (ft)	44	0	31	#317	396	0	15	#549	32
Internal Link Dist (ft)					1421			2552	
Turn Bay Length (ft)	200	110	120	250		275	305		110
Base Capacity (vph)	104	714	90	216	1609	766	90	1130	593
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.09	0.14	0.96	0.60	0.02	0.04	0.92	0.20

Intersection Summary

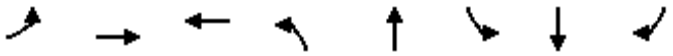
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	60	12	0	0	184	853	14	4	928	108
Future Volume (veh/h)	20	0	60	12	0	0	184	853	14	4	928	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	22	0	67	13	0	0	207	958	16	4	1043	121
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	36	1124	501	24	1101	491	221	1543	688	8	1118	499
Arrive On Green	0.02	0.00	0.35	0.01	0.00	0.00	0.14	0.48	0.48	0.01	0.34	0.34
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	22	0	67	13	0	0	207	958	16	4	1043	121
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.5	0.0	3.6	0.9	0.0	0.0	14.4	25.1	0.7	0.3	35.4	6.8
Cycle Q Clear(g_c), s	1.5	0.0	3.6	0.9	0.0	0.0	14.4	25.1	0.7	0.3	35.4	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	1124	501	24	1101	491	221	1543	688	8	1118	499
V/C Ratio(X)	0.61	0.00	0.13	0.54	0.00	0.00	0.94	0.62	0.02	0.47	0.93	0.24
Avail Cap(c_a), veh/h	107	1124	501	93	1101	491	221	1543	688	93	1153	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	0.0	25.5	55.8	0.0	0.0	48.8	22.2	15.9	56.5	36.1	26.7
Incr Delay (d2), s/veh	15.9	0.0	0.6	17.5	0.0	0.0	43.0	0.8	0.0	35.6	13.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.2	0.5	0.0	0.0	8.2	8.7	0.2	0.2	14.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.1	0.0	26.1	73.3	0.0	0.0	91.8	23.0	15.9	92.1	49.3	27.0
LnGrp LOS	E	A	C	E	A	A	F	C	B	F	D	C
Approach Vol, veh/h		89			13			1181			1168	
Approach Delay, s/veh		37.2			73.3			35.0			47.1	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	44.0	20.0	43.8	7.0	43.2	5.1	58.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	2.9	5.6	16.4	37.4	3.5	0.0	2.3	27.1
Green Ext Time (p_c), s	0.0	0.2	0.0	1.9	0.0	0.0	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

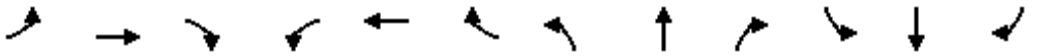


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	23	37	2	328	1253	7	1008	195
v/c Ratio	0.13	0.10	0.01	1.99	0.60	0.04	0.65	0.24
Control Delay	25.1	0.5	23.5	486.9	7.4	25.2	11.5	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	0.5	23.5	486.9	7.4	25.2	11.5	2.0
Queue Length 50th (ft)	6	0	1	~146	70	2	101	0
Queue Length 95th (ft)	28	0	6	#375	222	14	148	19
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	567	753	609	165	3214	381	3223	1442
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.05	0.00	1.99	0.39	0.02	0.31	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

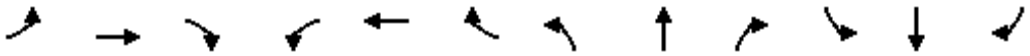
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	867	168
Future Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	867	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1230	23	7	1008	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	308	0	163	172	29	80	184	1893	35	15	1549	691
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.58	0.58	0.01	0.47	0.47
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3286	61	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	612	641	7	1008	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1711	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.1	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	308	0	163	281	0	0	184	943	986	15	1549	691
V/C Ratio(X)	0.07	0.00	0.23	0.01	0.00	0.00	1.79	0.65	0.65	0.46	0.65	0.28
Avail Cap(c_a), veh/h	790	0	703	781	0	0	184	2694	2818	423	5864	2616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	18.1	17.6	0.0	0.0	19.8	6.4	6.4	22.0	8.9	7.1
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.0	0.0	0.0	374.4	0.8	0.7	19.9	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	20.6	1.4	1.5	0.1	1.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	18.8	17.6	0.0	0.0	394.2	7.2	7.1	41.9	9.4	7.4
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1581			1210	
Approach Delay, s/veh		18.5			17.6			87.5			9.3	
Approach LOS		B			B			F			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	9.5	25.6		9.5	4.9	30.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	5.0	80.0		21.5	11.5	73.5				
Max Q Clear Time (g_c+I1), s		3.0	7.0	12.5		2.1	2.2	13.3				
Green Ext Time (p_c), s		0.2	0.0	8.7		0.0	0.0	9.4				

Intersection Summary												
HCM 6th Ctrl Delay			52.8									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	189	246	70	155	259	204	1119	78	206	705	59
v/c Ratio	0.92	0.17	0.37	0.67	0.15	0.40	0.83	0.99	0.14	0.94	0.65	0.12
Control Delay	121.6	31.6	5.5	88.3	32.7	5.8	80.0	66.5	5.3	102.0	41.3	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	121.6	31.6	5.5	88.3	32.7	5.8	80.0	66.5	5.3	102.0	41.3	32.7
Queue Length 50th (ft)	95	60	0	59	49	0	166	491	0	174	273	36
Queue Length 95th (ft)	#213	91	60	#127	77	61	#280	#646	29	#327	344	71
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	121	1124	665	110	1036	641	270	1133	565	220	1081	483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.17	0.37	0.64	0.15	0.40	0.76	0.99	0.14	0.94	0.65	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	176	229	65	144	241	190	1041	73	192	656	55
Future Volume (veh/h)	103	176	229	65	144	241	190	1041	73	192	656	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	111	189	246	70	155	259	204	1119	78	206	705	59
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
Arrive On Green	0.07	0.33	0.33	0.05	0.31	0.31	0.14	0.34	0.34	0.13	0.34	0.34
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	111	189	246	70	155	259	204	1119	78	206	705	59
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	8.5	5.2	17.0	5.3	4.3	18.7	15.5	42.8	4.7	15.7	22.8	3.5
Cycle Q Clear(g_c), s	8.5	5.2	17.0	5.3	4.3	18.7	15.5	42.8	4.7	15.7	22.8	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
V/C Ratio(X)	0.90	0.17	0.49	0.80	0.15	0.55	0.89	0.97	0.15	0.92	0.62	0.12
Avail Cap(c_a), veh/h	123	1121	500	113	1051	469	274	1149	512	224	1139	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	30.5	34.5	60.9	32.2	37.1	55.2	42.2	29.7	55.7	35.9	29.5
Incr Delay (d2), s/veh	52.4	0.3	3.4	25.8	0.3	4.6	25.5	20.5	0.1	38.9	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.1	6.4	2.9	1.7	7.2	8.0	20.0	1.7	8.8	9.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.2	30.9	37.9	86.7	32.5	41.7	80.7	62.6	29.8	94.6	36.9	29.6
LnGrp LOS	F	C	D	F	C	D	F	E	C	F	D	C
Approach Vol, veh/h		546			484			1401			970	
Approach Delay, s/veh		50.6			45.3			63.4			48.7	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	47.9	22.2	48.6	14.0	45.2	21.8	49.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	41.5	21.2	40.6	9.5	40.7	17.3	44.5
Max Q Clear Time (g_c+I1), s	7.3	19.0	17.5	24.8	10.5	20.7	17.7	44.8
Green Ext Time (p_c), s	0.0	1.8	0.2	3.9	0.0	1.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

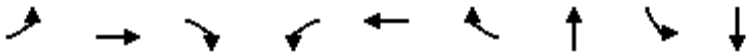
Intersection	
Int Delay, s/veh	11.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	5	23	21	2	3	23	176	7	5	184	56
Future Vol, veh/h	57	5	23	21	2	3	23	176	7	5	184	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	5	24	22	2	3	24	187	7	5	196	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	29	0	0	315	188	17	284	199	4
Stage 1	-	-	-	-	-	-	139	139	-	48	48	-
Stage 2	-	-	-	-	-	-	176	49	-	236	151	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1590	-	-	1559	-	-	630	700	1050	660	690	1068
Stage 1	-	-	-	-	-	-	855	774	-	955	847	-
Stage 2	-	-	-	-	-	-	817	846	-	758	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1590	-	-	1559	-	-	440	664	1050	493	654	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	440	664	-	493	654	-
Stage 1	-	-	-	-	-	-	822	744	-	918	835	-
Stage 2	-	-	-	-	-	-	582	834	-	541	735	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.9	5.9	13.6	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	636	1590	-	-	1559	-	-	712
HCM Lane V/C Ratio	0.345	0.038	-	-	0.014	-	-	0.366
HCM Control Delay (s)	13.6	7.4	0	-	7.3	0	-	12.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	1.7



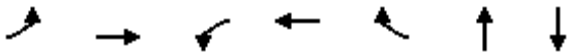
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	170	611	35	33	702	168	113	106	112
v/c Ratio	0.47	0.32	0.04	0.16	0.61	0.27	0.32	0.39	0.31
Control Delay	27.2	9.3	2.1	29.8	19.4	5.8	22.9	27.2	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	9.3	2.1	29.8	19.4	5.8	22.9	27.2	18.7
Queue Length 50th (ft)	50	39	0	10	99	5	29	31	22
Queue Length 95th (ft)	131	135	9	41	201	46	86	89	73
Internal Link Dist (ft)		2540			1252		326		432
Turn Bay Length (ft)	310		300	315		155		200	
Base Capacity (vph)	839	2456	1114	839	2456	1139	1222	972	1231
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.25	0.03	0.04	0.29	0.15	0.09	0.11	0.09

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	574	33	31	660	158	13	71	22	100	59	46
Future Volume (veh/h)	160	574	33	31	660	158	13	71	22	100	59	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	170	611	35	33	702	168	14	76	23	106	63	49
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	228	1553	693	67	1233	550	127	162	46	405	132	103
Arrive On Green	0.13	0.45	0.45	0.04	0.36	0.36	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	115	1161	326	1255	944	735
Grp Volume(v), veh/h	170	611	35	33	702	168	113	0	0	106	0	112
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1602	0	0	1255	0	1679
Q Serve(g_s), s	3.5	4.3	0.5	0.7	6.0	2.9	0.2	0.0	0.0	0.0	0.0	2.2
Cycle Q Clear(g_c), s	3.5	4.3	0.5	0.7	6.0	2.9	2.5	0.0	0.0	2.1	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.20	1.00		0.44
Lane Grp Cap(c), veh/h	228	1553	693	67	1233	550	335	0	0	405	0	235
V/C Ratio(X)	0.75	0.39	0.05	0.49	0.57	0.31	0.34	0.00	0.00	0.26	0.00	0.48
Avail Cap(c_a), veh/h	1276	3723	1660	1276	3723	1660	1918	0	0	1604	0	1839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.3	6.7	5.6	17.2	9.4	8.4	14.5	0.0	0.0	14.4	0.0	14.5
Incr Delay (d2), s/veh	4.8	0.2	0.0	5.5	0.4	0.3	0.6	0.0	0.0	0.3	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.6	0.1	0.3	1.2	0.5	0.8	0.0	0.0	0.7	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	6.8	5.7	22.6	9.9	8.8	15.1	0.0	0.0	14.7	0.0	16.0
LnGrp LOS	C	A	A	C	A	A	B	A	A	B	A	B
Approach Vol, veh/h		816			903			113			218	
Approach Delay, s/veh		9.6			10.1			15.1			15.4	
Approach LOS		A			B			B			B	

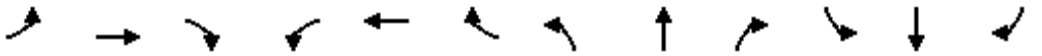
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	21.0		9.6	9.3	17.6		9.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.7	6.3		4.2	5.5	8.0		4.5				
Green Ext Time (p_c), s	0.0	3.9		1.0	0.4	5.1		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		10.7	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	99	441	175	479	194	348	267
v/c Ratio	0.41	0.53	0.57	0.43	0.31	0.64	0.68
Control Delay	43.1	30.1	42.2	25.8	5.4	29.2	34.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	30.1	42.2	25.8	5.4	29.2	34.0
Queue Length 50th (ft)	48	99	83	105	0	139	109
Queue Length 95th (ft)	103	158	158	163	33	243	206
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	403	1378	615	1824	905	787	569
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.32	0.28	0.26	0.21	0.44	0.47

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	298	54	140	383	155	45	158	75	90	80	43
Future Volume (veh/h)	79	298	54	140	383	155	45	158	75	90	80	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	372	68	175	479	194	56	198	94	112	100	54
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	220	810	147	253	1024	457	117	302	131	212	177	79
Arrive On Green	0.13	0.28	0.28	0.15	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1711	2886	523	1711	3413	1522	180	1032	448	453	604	269
Grp Volume(v), veh/h	99	219	221	175	479	194	348	0	0	266	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1702	1711	1706	1522	1660	0	0	1327	0	0
Q Serve(g_s), s	3.5	6.8	7.0	6.3	7.4	6.6	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	6.8	7.0	6.3	7.4	6.6	11.7	0.0	0.0	11.5	0.0	0.0
Prop In Lane	1.00		0.31	1.00		1.00	0.16		0.27	0.42		0.20
Lane Grp Cap(c), veh/h	220	479	478	253	1024	457	551	0	0	468	0	0
V/C Ratio(X)	0.45	0.46	0.46	0.69	0.47	0.42	0.63	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	503	871	869	767	2270	1013	1068	0	0	905	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.1	19.2	19.2	26.1	18.4	18.1	20.3	0.0	0.0	19.9	0.0	0.0
Incr Delay (d2), s/veh	1.4	2.5	2.5	3.4	1.2	2.3	4.3	0.0	0.0	3.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	2.6	2.4	2.6	2.2	4.7	0.0	0.0	3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	21.6	21.8	29.5	19.6	20.4	24.6	0.0	0.0	23.8	0.0	0.0
LnGrp LOS	C	C	C	C	B	C	C	A	A	C	A	A
Approach Vol, veh/h		539			848			348			266	
Approach Delay, s/veh		22.8			21.8			24.6			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	25.1		25.9	12.3	26.4		25.9				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	8.3	9.0		13.7	5.5	9.4		13.5				
Green Ext Time (p_c), s	0.4	5.7		5.2	0.2	10.0		4.0				

Intersection Summary			
HCM 6th Ctrl Delay		22.8	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	24	0	2	0
Future Vol, veh/h	0	16	24	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	30	44	0	4	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	44	0	-	0	74	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1397	-	-	-	863	949
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	923	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1397	-	-	-	863	949
Mov Cap-2 Maneuver	-	-	-	-	863	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	923	-

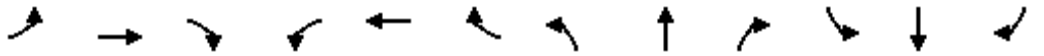
Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1397	-	-	-	863
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	209	475	7	860	261	10	20	92	84
v/c Ratio	0.60	0.24	0.05	0.71	0.48	0.07	0.13	0.42	0.26
Control Delay	40.9	9.0	40.2	25.3	23.2	40.2	40.1	40.4	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	9.0	40.2	25.3	23.2	40.2	40.1	40.4	30.2
Queue Length 50th (ft)	93	48	3	186	97	5	9	42	31
Queue Length 95th (ft)	#243	120	18	283	182	23	35	100	92
Internal Link Dist (ft)		1213		1278			262		404
Turn Bay Length (ft)	300		300		200	200		300	
Base Capacity (vph)	347	2273	347	2265	1013	347	455	347	427
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.21	0.02	0.38	0.26	0.03	0.04	0.27	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	419	8	6	774	235	9	11	7	83	4	72
Future Volume (veh/h)	188	419	8	6	774	235	9	11	7	83	4	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	209	466	9	7	860	261	10	12	8	92	4	80
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	259	1747	34	15	1254	559	22	86	58	118	10	208
Arrive On Green	0.15	0.52	0.52	0.01	0.37	0.37	0.01	0.09	0.09	0.07	0.14	0.14
Sat Flow, veh/h	1682	3368	65	1682	3357	1497	1682	989	659	1682	72	1436
Grp Volume(v), veh/h	209	232	243	7	860	261	10	0	20	92	0	84
Grp Sat Flow(s),veh/h/ln	1682	1678	1755	1682	1678	1497	1682	0	1648	1682	0	1508
Q Serve(g_s), s	6.9	4.4	4.4	0.2	12.3	7.6	0.3	0.0	0.6	3.1	0.0	2.9
Cycle Q Clear(g_c), s	6.9	4.4	4.4	0.2	12.3	7.6	0.3	0.0	0.6	3.1	0.0	2.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.40	1.00		0.95
Lane Grp Cap(c), veh/h	259	870	910	15	1254	559	22	0	144	118	0	218
V/C Ratio(X)	0.81	0.27	0.27	0.45	0.69	0.47	0.46	0.00	0.14	0.78	0.00	0.39
Avail Cap(c_a), veh/h	456	1482	1550	456	2964	1322	456	0	591	456	0	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	7.7	7.7	28.2	15.1	13.6	28.0	0.0	24.1	26.2	0.0	22.2
Incr Delay (d2), s/veh	5.8	0.2	0.2	19.2	0.7	0.6	14.6	0.0	0.4	10.6	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.0	1.1	0.2	3.6	2.3	0.2	0.0	0.3	1.5	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	7.9	7.8	47.4	15.8	14.2	42.7	0.0	24.5	36.8	0.0	23.3
LnGrp LOS	C	A	A	D	B	B	D	A	C	D	A	C
Approach Vol, veh/h		684			1128			30			176	
Approach Delay, s/veh		14.4			15.6			30.6			30.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	34.2	5.2	12.8	13.3	25.9	8.5	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.2	6.4	2.3	4.9	8.9	14.3	5.1	2.6
Green Ext Time (p_c), s	0.0	2.5	0.0	0.3	0.3	7.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	73	45	72	115	6	24	31	24	2	61	8
Future Vol, veh/h	5	73	45	72	115	6	24	31	24	2	61	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	101	63	100	160	8	33	43	33	3	85	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	10.6	9.1	9.1
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	4%	37%	3%
Vol Thru, %	39%	59%	60%	86%
Vol Right, %	30%	37%	3%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	123	193	71
LT Vol	24	5	72	2
Through Vol	31	73	115	61
RT Vol	24	45	6	8
Lane Flow Rate	110	171	268	99
Geometry Grp	1	1	1	1
Degree of Util (X)	0.155	0.222	0.359	0.142
Departure Headway (Hd)	5.096	4.686	4.826	5.171
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	699	762	743	688
Service Time	3.163	2.744	2.879	3.239
HCM Lane V/C Ratio	0.157	0.224	0.361	0.144
HCM Control Delay	9.1	9.1	10.6	9.1
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.5	0.8	1.6	0.5

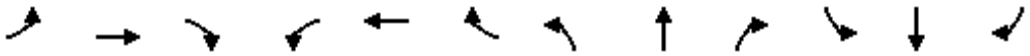
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	16	0	0	0	23	89	0	0	187	0
Future Vol, veh/h	1	0	16	0	0	0	23	89	0	0	187	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	0	25	0	0	0	35	137	0	0	288	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	495	495	288	508	495	137	288	0	0	-	-	0
Stage 1	288	288	-	207	207	-	-	-	-	-	-	-
Stage 2	207	207	-	301	288	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	-	-	-
Pot Cap-1 Maneuver	475	467	737	466	467	896	1240	-	-	0	-	-
Stage 1	707	663	-	781	719	-	-	-	-	0	-	-
Stage 2	781	719	-	695	663	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	464	453	737	440	453	896	1240	-	-	-	-	-
Mov Cap-2 Maneuver	464	453	-	440	453	-	-	-	-	-	-	-
Stage 1	685	663	-	757	697	-	-	-	-	-	-	-
Stage 2	757	697	-	672	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	0	1.6	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1240	-	-	712	-	-	-
HCM Lane V/C Ratio	0.029	-	-	0.037	-	-	-
HCM Control Delay (s)	8	0	-	10.2	0	-	-
HCM Lane LOS	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	-

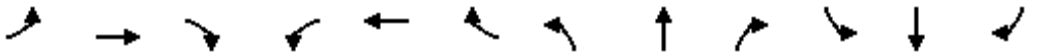


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	84	348	202	130	743	98	424	311	76	86	250	34
v/c Ratio	0.42	0.39	0.51	0.54	0.69	0.20	1.03	0.30	0.17	0.42	0.51	0.16
Control Delay	44.1	26.9	31.7	45.3	30.1	24.5	88.1	28.6	30.4	44.1	39.0	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	26.9	31.7	45.3	30.1	24.5	88.1	28.6	30.4	44.1	39.0	36.8
Queue Length 50th (ft)	42	78	89	64	183	39	~250	70	31	43	65	16
Queue Length 95th (ft)	99	128	168	142	280	86	#555	138	84	100	120	49
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	327	1629	728	327	1629	728	412	1244	556	412	1205	539
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.21	0.28	0.40	0.46	0.13	1.03	0.25	0.14	0.21	0.21	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	313	182	117	669	88	382	280	68	77	225	31
Future Volume (veh/h)	76	313	182	117	669	88	382	280	68	77	225	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	84	348	202	130	743	98	424	311	76	86	250	34
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	109	896	400	167	1011	451	465	1116	498	112	411	183
Arrive On Green	0.06	0.26	0.26	0.10	0.29	0.29	0.27	0.32	0.32	0.06	0.12	0.12
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	84	348	202	130	743	98	424	311	76	86	250	34
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.3	5.7	7.7	5.1	13.4	3.3	16.4	4.6	2.4	3.4	4.7	1.4
Cycle Q Clear(g_c), s	3.3	5.7	7.7	5.1	13.4	3.3	16.4	4.6	2.4	3.4	4.7	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	896	400	167	1011	451	465	1116	498	112	411	183
V/C Ratio(X)	0.77	0.39	0.51	0.78	0.73	0.22	0.91	0.28	0.15	0.77	0.61	0.19
Avail Cap(c_a), veh/h	389	1929	860	389	1929	860	490	1428	637	490	1428	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	21.2	21.9	30.6	22.1	18.6	24.6	17.5	16.8	31.9	29.0	27.5
Incr Delay (d2), s/veh	11.0	0.3	1.0	7.7	1.1	0.2	20.6	0.1	0.1	10.5	1.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.0	2.6	2.2	4.7	1.1	8.6	1.6	0.8	1.6	1.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	21.5	22.9	38.3	23.2	18.8	45.2	17.6	16.9	42.4	30.5	28.0
LnGrp LOS	D	C	C	D	C	B	D	B	B	D	C	C
Approach Vol, veh/h		634			971			811			370	
Approach Delay, s/veh		24.8			24.7			32.0			33.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	22.4	23.0	12.7	8.8	24.7	9.0	26.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	7.1	9.7	18.4	6.7	5.3	15.4	5.4	6.6
Green Ext Time (p_c), s	0.2	2.6	0.2	1.5	0.1	4.8	0.1	2.0

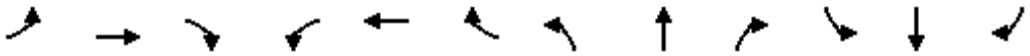
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	71.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	25	143	22	136	64	589	76	88	467	27
Future Vol, veh/h	6	2	25	143	22	136	64	589	76	88	467	27
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	3	32	183	28	174	82	755	97	113	599	35
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	16	25.2	108.3	53.2
HCM LOS	C	D	F	F

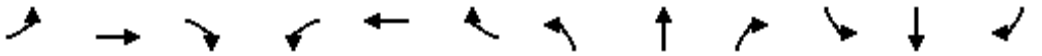
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	18%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	72%	6%	0%	14%	0%	100%	85%
Vol Right, %	0%	0%	28%	76%	0%	86%	0%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	393	272	33	143	158	88	311	183
LT Vol	64	0	0	6	143	0	88	0	0
Through Vol	0	393	196	2	0	22	0	311	156
RT Vol	0	0	76	25	0	136	0	0	27
Lane Flow Rate	82	503	349	42	183	203	113	399	234
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.218	1.268	0.86	0.13	0.544	0.54	0.301	1.01	0.586
Departure Headway (Hd)	9.584	9.066	8.863	11.575	11.207	10.08	10.021	9.503	9.396
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	375	403	409	312	324	361	361	383	386
Service Time	7.334	6.816	6.614	9.275	8.907	7.78	7.721	7.203	7.096
HCM Lane V/C Ratio	0.219	1.248	0.853	0.135	0.565	0.562	0.313	1.042	0.606
HCM Control Delay	15	166.1	46.8	16	26.5	24	17	80.2	24.6
HCM Lane LOS	B	F	E	C	D	C	C	F	C
HCM 95th-tile Q	0.8	21.8	8.4	0.4	3.1	3.1	1.2	12.2	3.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	2	52	257	34	8	225	784	55	2	607	149
v/c Ratio	0.44	0.01	0.33	0.67	0.07	0.02	0.66	0.47	0.07	0.02	0.69	0.38
Control Delay	48.4	34.0	40.5	40.4	25.1	24.9	42.4	15.6	12.9	39.5	31.7	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	34.0	40.5	40.4	25.1	24.9	42.4	15.6	12.9	39.5	31.7	27.9
Queue Length 50th (ft)	29	1	25	119	13	3	105	123	13	1	144	61
Queue Length 95th (ft)	67	7	57	#218	35	14	#199	203	38	8	187	107
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	137	792	674	385	1053	895	341	1945	870	108	1479	662
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.00	0.08	0.67	0.03	0.01	0.66	0.40	0.06	0.02	0.41	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	2	43	213	28	7	187	651	46	2	504	124
Future Volume (veh/h)	49	2	43	213	28	7	187	651	46	2	504	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	2	52	257	34	8	225	784	55	2	607	149
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	93	159	135	316	393	333	280	1469	655	5	921	411
Arrive On Green	0.05	0.09	0.09	0.18	0.21	0.21	0.16	0.42	0.42	0.00	0.26	0.26
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	59	2	52	257	34	8	225	784	55	2	607	149
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	1.9	0.1	1.8	8.2	0.9	0.2	7.2	9.7	1.2	0.1	9.0	4.5
Cycle Q Clear(g_c), s	1.9	0.1	1.8	8.2	0.9	0.2	7.2	9.7	1.2	0.1	9.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	159	135	316	393	333	280	1469	655	5	921	411
V/C Ratio(X)	0.64	0.01	0.39	0.81	0.09	0.02	0.80	0.53	0.08	0.42	0.66	0.36
Avail Cap(c_a), veh/h	191	1099	931	535	1461	1238	475	2698	1203	151	2052	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	24.2	25.0	22.8	18.3	18.0	23.5	12.6	10.1	28.8	19.0	17.4
Incr Delay (d2), s/veh	7.0	0.0	1.8	5.1	0.1	0.0	5.4	0.3	0.1	49.0	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.7	3.5	0.3	0.1	3.0	3.1	0.3	0.1	3.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	24.2	26.8	27.9	18.3	18.0	28.9	12.9	10.2	77.8	19.8	17.9
LnGrp LOS	C	C	C	C	B	B	C	B	B	E	B	B
Approach Vol, veh/h		113			299			1064			758	
Approach Delay, s/veh		30.5			26.5			16.1			19.6	
Approach LOS		C			C			B			B	

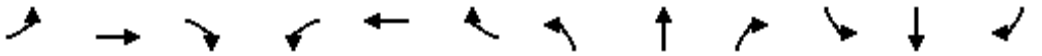
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	9.5	13.7	19.8	7.6	16.9	4.7	28.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	10.2	3.8	9.2	11.0	3.9	2.9	2.1	11.7
Green Ext Time (p_c), s	0.5	0.1	0.3	4.3	0.0	0.2	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	75	475	101	459	149	269	941	124	96	737	161
v/c Ratio	0.59	0.40	0.79	0.38	0.23	0.96	0.79	0.21	0.65	0.79	0.39
Control Delay	71.4	18.3	91.5	30.3	5.7	93.9	39.0	7.2	72.7	45.5	36.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	18.3	91.5	30.3	5.7	93.9	39.0	7.2	72.7	45.5	36.5
Queue Length 50th (ft)	54	80	75	138	0	200	327	8	69	264	96
Queue Length 95th (ft)	100	116	#158	180	37	#344	361	39	#122	300	143
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	137	1198	128	1221	642	279	1357	672	160	1118	500
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.40	0.79	0.38	0.23	0.96	0.69	0.18	0.60	0.66	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



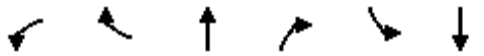
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	210	184	84	381	124	223	781	103	80	612	134
Future Volume (veh/h)	62	210	184	84	381	124	223	781	103	80	612	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	75	253	222	101	459	149	269	941	124	96	737	161
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	95	610	515	125	1246	556	290	1231	549	120	893	398
Arrive On Green	0.05	0.34	0.34	0.07	0.36	0.36	0.17	0.35	0.35	0.07	0.26	0.26
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	75	246	229	101	459	149	269	941	124	96	737	161
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	4.7	12.1	12.6	6.4	10.9	7.6	16.9	26.7	6.2	6.0	22.3	9.6
Cycle Q Clear(g_c), s	4.7	12.1	12.6	6.4	10.9	7.6	16.9	26.7	6.2	6.0	22.3	9.6
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	593	532	125	1246	556	290	1231	549	120	893	398
V/C Ratio(X)	0.79	0.41	0.43	0.81	0.37	0.27	0.93	0.76	0.23	0.80	0.83	0.40
Avail Cap(c_a), veh/h	142	593	532	133	1246	556	290	1402	626	166	1156	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	28.0	28.2	50.8	26.3	25.2	45.6	31.7	25.1	50.9	38.9	34.2
Incr Delay (d2), s/veh	15.4	2.1	2.5	28.3	0.8	1.2	34.6	2.2	0.2	17.1	3.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.0	4.7	3.6	4.3	2.9	9.9	11.1	2.3	3.2	9.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	30.1	30.7	79.1	27.1	26.4	80.2	34.0	25.3	68.0	42.8	34.8
LnGrp LOS	E	C	C	E	C	C	F	C	C	E	D	C
Approach Vol, veh/h		550			709			1334			994	
Approach Delay, s/veh		35.4			34.4			42.5			44.0	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	42.5	23.0	33.1	10.6	44.4	12.2	43.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	8.4	14.6	18.9	24.3	6.7	12.9	8.0	28.7
Green Ext Time (p_c), s	0.0	2.5	0.0	4.3	0.0	3.1	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	90	80	1376	35	735
v/c Ratio	0.24	0.20	0.82	0.12	0.31
Control Delay	40.5	9.5	30.6	43.5	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	9.5	30.6	43.5	7.1
Queue Length 50th (ft)	58	0	460	23	101
Queue Length 95th (ft)	91	29	446	47	107
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	376	398	1682	290	2398
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.20	0.82	0.12	0.31

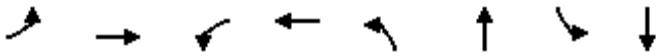
Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	71	63	1052	35	28	581
Future Volume (veh/h)	71	63	1052	35	28	581
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	90	80	1332	44	35	735
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1685	56	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3490	112	1725	3532
Grp Volume(v), veh/h	90	80	674	702	35	735
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1791	1725	1721
Q Serve(g_s), s	5.1	5.1	38.9	39.0	2.1	9.6
Cycle Q Clear(g_c), s	5.1	5.1	38.9	39.0	2.1	9.6
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	381	339	853	888	295	2423
V/C Ratio(X)	0.24	0.24	0.79	0.79	0.12	0.30
Avail Cap(c_a), veh/h	381	339	853	888	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	38.4	25.1	25.1	42.1	6.7
Incr Delay (d2), s/veh	1.5	1.6	5.0	4.9	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.9	16.6	17.3	1.0	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.9	40.1	30.1	30.0	42.9	7.0
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	170		1376			770
Approach Delay, s/veh	40.0		30.0			8.6
Approach LOS	D		C			A

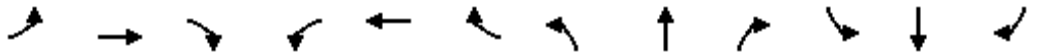
Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				89.0		31.0	25.0	64.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				84.5		26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s				11.6		7.1	4.1	41.0
Green Ext Time (p_c), s				6.3		0.4	0.0	9.6

Intersection Summary								
HCM 6th Ctrl Delay			23.7					
HCM 6th LOS			C					



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	3	530	102	1044	64	104	32	24
v/c Ratio	0.01	0.45	0.32	0.58	0.23	0.30	0.14	0.08
Control Delay	32.7	18.6	28.5	12.7	29.3	26.2	31.1	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	18.6	28.5	12.7	29.3	26.2	31.1	22.5
Queue Length 50th (ft)	1	78	30	114	19	24	10	4
Queue Length 95th (ft)	10	150	93	273	66	96	43	28
Internal Link Dist (ft)		1246		2538		560		253
Turn Bay Length (ft)	150		150		150		150	
Base Capacity (vph)	204	3116	577	3344	540	856	279	685
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.17	0.18	0.31	0.12	0.12	0.11	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	449	18	90	909	10	56	5	87	29	13	9
Future Volume (veh/h)	3	449	18	90	909	10	56	5	87	29	13	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	510	20	102	1033	11	64	5	99	32	14	10
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	1219	48	142	1532	16	109	10	206	65	112	80
Arrive On Green	0.00	0.35	0.35	0.08	0.43	0.43	0.06	0.14	0.14	0.04	0.11	0.11
Sat Flow, veh/h	1781	3486	137	1781	3602	38	1781	77	1520	1781	1015	725
Grp Volume(v), veh/h	3	260	270	102	510	534	64	0	104	32	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1846	1781	1777	1863	1781	0	1597	1781	0	1740
Q Serve(g_s), s	0.1	5.0	5.0	2.5	10.4	10.4	1.6	0.0	2.7	0.8	0.0	0.6
Cycle Q Clear(g_c), s	0.1	5.0	5.0	2.5	10.4	10.4	1.6	0.0	2.7	0.8	0.0	0.6
Prop In Lane	1.00		0.07	1.00		0.02	1.00		0.95	1.00		0.42
Lane Grp Cap(c), veh/h	7	621	645	142	756	793	109	0	216	65	0	193
V/C Ratio(X)	0.41	0.42	0.42	0.72	0.67	0.67	0.59	0.00	0.48	0.49	0.00	0.12
Avail Cap(c_a), veh/h	217	2105	2187	611	2499	2621	572	0	902	296	0	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	11.2	11.2	20.3	10.5	10.5	20.6	0.0	18.1	21.3	0.0	18.1
Incr Delay (d2), s/veh	33.2	0.4	0.4	6.6	1.1	1.0	5.0	0.0	1.7	5.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	1.4	1.1	2.5	2.6	0.7	0.0	1.0	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	11.6	11.6	26.8	11.5	11.5	25.6	0.0	19.7	26.9	0.0	18.4
LnGrp LOS	E	B	B	C	B	B	C	A	B	C	A	B
Approach Vol, veh/h		533			1146			168			56	
Approach Delay, s/veh		11.9			12.8			22.0			23.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	20.3	7.3	9.5	4.7	23.7	6.2	10.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	53.5	14.5	18.5	5.5	63.5	7.5	25.5
Max Q Clear Time (g_c+I1), s	4.5	7.0	3.6	2.6	2.1	12.4	2.8	4.7
Green Ext Time (p_c), s	0.1	2.8	0.1	0.0	0.0	6.8	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	124	6	44	241	9	13	10	46	27	7	16
Future Vol, veh/h	10	124	6	44	241	9	13	10	46	27	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	168	8	59	326	12	18	14	62	36	9	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	338	0	0	176	0	0	666	656	172	688	654	332
Stage 1	-	-	-	-	-	-	200	200	-	450	450	-
Stage 2	-	-	-	-	-	-	466	456	-	238	204	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1227	-	-	1406	-	-	374	386	874	362	387	712
Stage 1	-	-	-	-	-	-	804	738	-	590	573	-
Stage 2	-	-	-	-	-	-	579	570	-	768	735	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1227	-	-	1406	-	-	341	366	874	313	366	712
Mov Cap-2 Maneuver	-	-	-	-	-	-	341	366	-	313	366	-
Stage 1	-	-	-	-	-	-	795	730	-	584	549	-
Stage 2	-	-	-	-	-	-	529	546	-	692	727	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.1	11.8	16.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	341	700	1227	-	-	1406	-	-	391
HCM Lane V/C Ratio	0.052	0.108	0.011	-	-	0.042	-	-	0.173
HCM Control Delay (s)	16.1	10.8	8	-	-	7.7	-	-	16.1
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0.4	0	-	-	0.1	-	-	0.6

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	59	18	55	117	1	33	1	30	0	0	0
Future Vol, veh/h	0	59	18	55	117	1	33	1	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	21	65	139	1	39	1	36	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	140	0	0	91	0	0	351	351	81	369	361	140
Stage 1	-	-	-	-	-	-	81	81	-	270	270	-
Stage 2	-	-	-	-	-	-	270	270	-	99	91	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1443	-	-	1504	-	-	604	573	979	588	566	908
Stage 1	-	-	-	-	-	-	927	828	-	736	686	-
Stage 2	-	-	-	-	-	-	736	686	-	907	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1443	-	-	1504	-	-	582	546	979	545	539	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	546	-	545	539	-
Stage 1	-	-	-	-	-	-	927	828	-	736	654	-
Stage 2	-	-	-	-	-	-	701	654	-	873	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	10.6	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	718	1443	-	-	1504	-	-	-
HCM Lane V/C Ratio	0.106	-	-	-	0.044	-	-	-
HCM Control Delay (s)	10.6	0	-	-	7.5	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	-

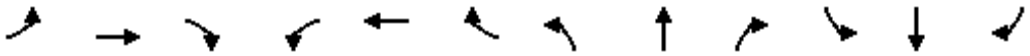
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	23	0	11	0	58	8	4	75	0
Future Vol, veh/h	0	0	0	23	0	11	0	58	8	4	75	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	29	0	14	0	73	10	5	94	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	189	187	94	182	182	78	94	0	0	83	0	0
Stage 1	104	104	-	78	78	-	-	-	-	-	-	-
Stage 2	85	83	-	104	104	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	769	706	960	777	710	980	1494	-	-	1508	-	-
Stage 1	899	807	-	928	828	-	-	-	-	-	-	-
Stage 2	920	824	-	899	807	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	757	704	960	775	708	980	1494	-	-	1508	-	-
Mov Cap-2 Maneuver	757	704	-	775	708	-	-	-	-	-	-	-
Stage 1	899	805	-	928	828	-	-	-	-	-	-	-
Stage 2	907	824	-	896	805	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.6	0	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1494	-	-	-	831	1508	-	-
HCM Lane V/C Ratio	-	-	-	-	0.051	0.003	-	-
HCM Control Delay (s)	0	-	-	0	9.6	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-

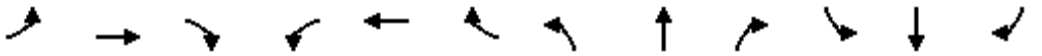


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	191	439	139	247	894	225	189	332	196	249	442	194
v/c Ratio	0.99	0.68	0.22	0.94	1.23	0.32	1.64	0.80	0.39	1.21	0.45	0.34
Control Delay	115.5	38.3	5.6	90.0	148.8	10.1	361.3	55.4	7.0	173.6	34.6	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.5	38.3	5.6	90.0	148.8	10.1	361.3	55.4	7.0	173.6	34.6	5.8
Queue Length 50th (ft)	138	263	0	176	~787	32	~195	224	0	~216	137	0
Queue Length 95th (ft)	#260	354	30	#299	#942	71	#313	276	33	#345	157	31
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	192	649	642	263	724	709	115	571	621	206	1268	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.68	0.22	0.94	1.23	0.32	1.64	0.58	0.32	1.21	0.35	0.28

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	347	110	195	706	178	149	262	155	197	349	153
Future Volume (veh/h)	151	347	110	195	706	178	149	262	155	197	349	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	439	139	247	894	225	189	332	196	249	442	194
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	665	563	271	742	629	118	389	330	212	926	413
Arrive On Green	0.11	0.36	0.36	0.15	0.40	0.40	0.07	0.21	0.21	0.12	0.26	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	191	439	139	247	894	225	189	332	196	249	442	194
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	11.6	21.5	6.7	14.8	43.1	10.8	7.2	18.6	12.1	12.9	11.4	11.2
Cycle Q Clear(g_c), s	11.6	21.5	6.7	14.8	43.1	10.8	7.2	18.6	12.1	12.9	11.4	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	665	563	271	742	629	118	389	330	212	926	413
V/C Ratio(X)	0.97	0.66	0.25	0.91	1.20	0.36	1.60	0.85	0.59	1.18	0.48	0.47
Avail Cap(c_a), veh/h	197	665	563	271	742	629	118	586	496	212	1299	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	29.5	24.7	45.3	32.7	23.0	50.7	41.4	38.9	47.8	33.9	33.8
Incr Delay (d2), s/veh	55.4	5.1	1.0	32.7	104.5	1.6	306.0	7.7	1.7	117.8	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	9.8	2.6	8.6	39.0	4.1	13.1	9.0	4.7	12.4	4.8	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.5	34.6	25.8	78.0	137.3	24.6	356.7	49.1	40.6	165.6	34.3	34.7
LnGrp LOS	F	C	C	E	F	C	F	D	D	F	C	C
Approach Vol, veh/h		769			1366			717			885	
Approach Delay, s/veh		50.1			108.0			127.9			71.3	
Approach LOS		D			F			F			E	

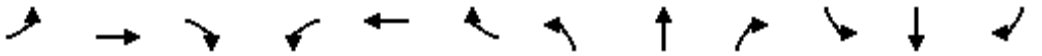
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	32.8	16.5	47.6	17.4	27.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	16.8	23.5	9.2	13.4	13.6	45.1	14.9	20.6
Green Ext Time (p_c), s	0.0	2.4	0.0	3.4	0.0	0.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	91.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	465	294	289	201	466	140	51	788
v/c Ratio	0.57	0.81	0.89	0.37	0.95	0.77	0.23	0.60	0.95
Control Delay	69.4	42.3	75.0	24.1	103.0	47.1	6.0	84.5	65.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.4	42.3	75.0	24.1	103.0	47.1	6.0	84.5	65.9
Queue Length 50th (ft)	59	270	221	146	157	334	0	39	315
Queue Length 95th (ft)	106	378	#340	207	#287	#441	41	#92	#408
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	153	576	352	789	211	606	609	85	829
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.81	0.84	0.37	0.95	0.77	0.23	0.60	0.95

Intersection Summary

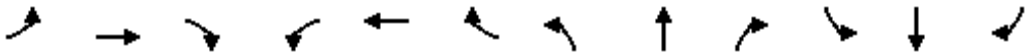
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	123	277	253	194	54	173	401	120	44	604	74
Future Volume (veh/h)	67	123	277	253	194	54	173	401	120	44	604	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	143	322	294	226	63	201	466	140	51	702	86
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	157	354	322	609	170	215	602	510	66	758	93
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	511	1152	1781	1407	392	1781	1870	1585	1781	3187	390
Grp Volume(v), veh/h	78	0	465	294	0	289	201	466	140	51	391	397
Grp Sat Flow(s),veh/h/ln	1781	0	1663	1781	0	1800	1781	1870	1585	1781	1777	1800
Q Serve(g_s), s	5.1	0.0	31.6	19.1	0.0	12.8	13.2	26.5	7.7	3.3	25.3	25.4
Cycle Q Clear(g_c), s	5.1	0.0	31.6	19.1	0.0	12.8	13.2	26.5	7.7	3.3	25.3	25.4
Prop In Lane	1.00		0.69	1.00		0.22	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	99	0	512	322	0	779	215	602	510	66	423	428
V/C Ratio(X)	0.78	0.00	0.91	0.91	0.00	0.37	0.94	0.77	0.27	0.78	0.93	0.93
Avail Cap(c_a), veh/h	156	0	512	357	0	779	215	602	510	86	423	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	0.0	39.2	47.3	0.0	22.6	51.3	36.0	29.7	56.2	43.8	43.8
Incr Delay (d2), s/veh	12.6	0.0	22.6	25.6	0.0	1.4	43.5	9.4	1.3	27.1	28.5	28.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	15.5	10.5	0.0	5.5	8.3	13.1	0.2	2.0	14.1	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	0.0	61.8	72.9	0.0	23.9	94.8	45.4	31.0	83.3	72.3	72.3
LnGrp LOS	E	A	E	E	A	C	F	D	C	F	E	E
Approach Vol, veh/h		543			583			807			839	
Approach Delay, s/veh		62.6			48.6			55.2			73.0	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	40.7	18.7	32.5	11.1	55.4	8.8	42.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	21.1	33.6	15.2	27.4	7.1	14.8	5.3	28.5
Green Ext Time (p_c), s	0.2	0.7	0.0	0.3	0.0	1.6	0.0	2.0

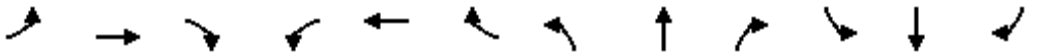
Intersection Summary	
HCM 6th Ctrl Delay	60.7
HCM 6th LOS	E



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	58	299	51	195	362	191	264	599	188	380	902	113
v/c Ratio	0.53	0.31	0.10	0.80	0.28	0.27	0.85	0.75	0.40	0.91	0.89	0.25
Control Delay	84.6	44.2	0.4	83.5	34.8	5.6	81.0	57.7	16.0	79.5	60.4	41.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	44.2	0.4	83.5	34.8	5.6	81.0	57.7	16.0	79.5	60.4	41.4
Queue Length 50th (ft)	56	126	0	185	138	0	249	284	36	359	440	84
Queue Length 95th (ft)	101	165	0	263	174	47	#342	335	95	#500	498	133
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	125	955	531	285	1289	698	361	913	513	463	1117	499
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.31	0.10	0.68	0.28	0.27	0.73	0.66	0.37	0.82	0.81	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	257	44	168	311	164	227	515	162	327	776	97
Future Volume (veh/h)	50	257	44	168	311	164	227	515	162	327	776	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	299	51	195	362	191	264	599	188	380	902	113
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1026	458	221	1319	588	291	793	354	408	1025	457
Arrive On Green	0.04	0.29	0.29	0.12	0.37	0.37	0.16	0.22	0.22	0.23	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	58	299	51	195	362	191	264	599	188	380	902	113
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.3	8.7	3.2	14.4	9.5	11.5	19.4	21.0	14.0	27.9	32.3	7.3
Cycle Q Clear(g_c), s	4.3	8.7	3.2	14.4	9.5	11.5	19.4	21.0	14.0	27.9	32.3	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	1026	458	221	1319	588	291	793	354	408	1025	457
V/C Ratio(X)	0.78	0.29	0.11	0.88	0.27	0.32	0.91	0.76	0.53	0.93	0.88	0.25
Avail Cap(c_a), veh/h	132	1026	458	300	1319	588	380	958	427	487	1170	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	36.9	34.9	57.5	29.4	30.0	54.9	48.5	45.7	50.5	45.3	36.4
Incr Delay (d2), s/veh	15.7	0.7	0.5	19.7	0.5	1.5	20.8	2.8	1.2	22.7	7.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.8	1.3	7.4	4.0	4.5	10.2	9.4	5.5	14.7	14.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.1	37.6	35.4	77.3	29.9	31.5	75.6	51.3	47.0	73.2	52.6	36.7
LnGrp LOS	E	D	D	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		408			748			1051			1395	
Approach Delay, s/veh		43.2			42.7			56.6			56.9	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	43.1	26.4	43.0	10.1	54.1	35.1	34.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	37.0	28.5	44.0	9.9	49.6	36.5	36.0
Max Q Clear Time (g_c+I1), s	16.4	10.7	21.4	34.3	6.3	13.5	29.9	23.0
Green Ext Time (p_c), s	0.2	1.8	0.4	4.2	0.0	2.7	0.7	3.5

Intersection Summary	
HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	1	87	1	1	175
Future Vol, veh/h	12	1	87	1	1	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	18	2	134	2	2	269

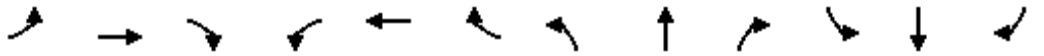
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	408	135	0	0	136	0
Stage 1	135	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	588	898	-	-	1412	-
Stage 1	877	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	587	898	-	-	1412	-
Mov Cap-2 Maneuver	587	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	757	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	603	1412	-
HCM Lane V/C Ratio	-	-	0.033	0.001	-
HCM Control Delay (s)	-	-	11.2	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	43	920	89	939	59
v/c Ratio	0.14	0.48	0.53	0.41	0.17
Control Delay	13.5	14.9	59.2	6.9	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	14.9	59.2	6.9	13.0
Queue Length 50th (ft)	14	195	62	123	2
Queue Length 95th (ft)	37	274	115	155	39
Internal Link Dist (ft)		841		2540	318
Turn Bay Length (ft)	390		310		
Base Capacity (vph)	304	1902	287	2610	352
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.14	0.48	0.31	0.36	0.17

Intersection Summary



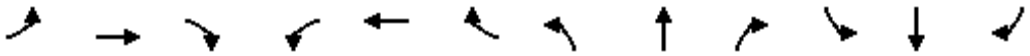
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	844	3	82	864	0	11	0	43	0	0	0
Future Volume (veh/h)	40	844	3	82	864	0	11	0	43	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	917	3	89	939	0	12	0	47			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	391	2001	7	112	2316	0	63	0	248			
Arrive On Green	0.60	0.60	0.60	0.07	0.71	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	549	3345	11	1640	3358	0	304	0	1189			
Grp Volume(v), veh/h	43	448	472	89	939	0	59	0	0			
Grp Sat Flow(s),veh/h/ln	549	1636	1720	1640	1636	0	1493	0	0			
Q Serve(g_s), s	3.8	16.4	16.4	5.8	12.7	0.0	3.5	0.0	0.0			
Cycle Q Clear(g_c), s	4.6	16.4	16.4	5.8	12.7	0.0	3.5	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.20		0.80			
Lane Grp Cap(c), veh/h	391	978	1029	112	2316	0	311	0	0			
V/C Ratio(X)	0.11	0.46	0.46	0.80	0.41	0.00	0.19	0.00	0.00			
Avail Cap(c_a), veh/h	391	978	1029	297	2685	0	311	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.8	12.0	12.0	49.5	6.5	0.0	35.2	0.0	0.0			
Incr Delay (d2), s/veh	0.6	1.5	1.5	12.1	0.1	0.0	1.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.4	5.6	2.6	3.1	0.0	1.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	13.5	13.5	61.6	6.6	0.0	36.5	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		963			1028			59				
Approach Delay, s/veh		13.4			11.3			36.5				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.8	69.0				80.8		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	7.8	18.4				14.7		5.5				
Green Ext Time (p_c), s	0.1	6.4				6.9		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			B									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	90	266	49	869	115	95	586
v/c Ratio	0.17	0.60	0.25	0.66	0.19	0.39	0.38
Control Delay	21.8	29.8	36.6	21.5	17.5	36.3	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	29.8	36.6	21.5	17.5	36.3	15.1
Queue Length 50th (ft)	28	98	20	164	33	38	94
Queue Length 95th (ft)	74	210	59	260	76	94	153
Internal Link Dist (ft)	1358	7763		5222			1131
Turn Bay Length (ft)			645		330	665	
Base Capacity (vph)	727	606	445	2929	1310	498	2990
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.44	0.11	0.30	0.09	0.19	0.20

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	62	17	87	60	87	43	765	101	84	516	0
Future Volume (veh/h)	1	62	17	87	60	87	43	765	101	84	516	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	1	70	19	99	68	99	49	869	115	95	586	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	81	323	87	214	119	133	87	1351	603	132	1441	0
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.39	0.39	0.08	0.42	0.00
Sat Flow, veh/h	5	1370	368	448	505	565	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	90	0	0	266	0	0	49	869	115	95	586	0
Grp Sat Flow(s),veh/h/ln	1742	0	0	1517	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	5.3	0.0	0.0	1.3	9.4	2.3	2.5	5.5	0.0
Cycle Q Clear(g_c), s	1.9	0.0	0.0	7.3	0.0	0.0	1.3	9.4	2.3	2.5	5.5	0.0
Prop In Lane	0.01		0.21	0.37		0.37	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	491	0	0	466	0	0	87	1351	603	132	1441	0
V/C Ratio(X)	0.18	0.00	0.00	0.57	0.00	0.00	0.56	0.64	0.19	0.72	0.41	0.00
Avail Cap(c_a), veh/h	1085	0	0	971	0	0	621	4620	2061	697	4771	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.1	0.0	0.0	16.1	0.0	0.0	21.2	11.3	9.1	20.7	9.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.1	0.0	0.0	5.5	0.5	0.2	7.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	2.3	0.0	0.0	0.5	2.3	0.5	1.0	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.3	0.0	0.0	17.2	0.0	0.0	26.8	11.8	9.3	27.8	9.5	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	A	C	A	A
Approach Vol, veh/h		90			266			1033			681	
Approach Delay, s/veh		14.3			17.2			12.2			12.1	
Approach LOS		B			B			B			B	

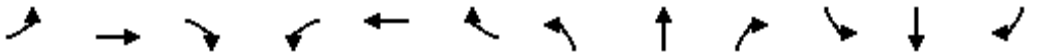
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.3	6.8	23.7		15.3	8.0	22.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	16.5	63.5		26.5	18.5	61.5				
Max Q Clear Time (g_c+I1), s		3.9	3.3	7.5		9.3	4.5	11.4				
Green Ext Time (p_c), s		0.4	0.1	3.7		1.5	0.2	6.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	296	503	126	315	500	143	219	724	246	114	749
v/c Ratio	0.85	0.75	0.31	0.88	0.72	0.34	0.82	0.71	0.44	0.72	0.90
Control Delay	66.2	51.6	8.0	69.2	50.1	9.1	70.8	38.6	15.4	77.2	50.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	51.6	8.0	69.2	50.1	9.1	70.8	38.6	15.4	77.2	50.8
Queue Length 50th (ft)	217	197	0	235	196	0	164	252	56	87	259
Queue Length 95th (ft)	#354	#266	45	#390	#262	56	#283	322	130	#177	#366
Internal Link Dist (ft)		2540			2540			2552			5222
Turn Bay Length (ft)	315		300	300		700	310		100	490	
Base Capacity (vph)	399	671	407	399	692	422	303	1153	609	169	908
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.75	0.31	0.79	0.72	0.34	0.72	0.63	0.40	0.67	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	483	121	302	480	137	210	695	236	109	450	269
Future Volume (veh/h)	284	483	121	302	480	137	210	695	236	109	450	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	296	503	126	315	500	143	219	724	246	114	469	280
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	327	705	314	345	741	331	249	1081	482	139	520	309
Arrive On Green	0.20	0.21	0.21	0.21	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1992	1183
Grp Volume(v), veh/h	296	503	126	315	500	143	219	724	246	114	388	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	18.9	15.3	8.0	20.1	15.0	9.0	14.0	20.4	14.6	7.3	24.6	24.8
Cycle Q Clear(g_c), s	18.9	15.3	8.0	20.1	15.0	9.0	14.0	20.4	14.6	7.3	24.6	24.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	327	705	314	345	741	331	249	1081	482	139	431	398
V/C Ratio(X)	0.91	0.71	0.40	0.91	0.67	0.43	0.88	0.67	0.51	0.82	0.90	0.91
Avail Cap(c_a), veh/h	421	705	314	421	741	331	320	1211	540	179	465	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	39.5	36.6	41.8	38.3	36.0	45.0	31.3	29.4	48.7	38.6	38.7
Incr Delay (d2), s/veh	19.4	6.1	3.8	21.4	4.9	4.1	19.9	1.2	0.8	20.5	19.5	21.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	6.4	3.0	9.7	6.2	3.4	6.8	7.7	4.9	3.7	11.6	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	45.6	40.4	63.2	43.2	40.1	64.9	32.6	30.2	69.2	58.1	60.3
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		925			958			1189			863	
Approach Delay, s/veh		50.1			49.3			38.0			60.5	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.1	27.6	20.8	32.8	25.9	28.8	13.6	39.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	22.1	17.3	16.0	26.8	20.9	17.0	9.3	22.4
Green Ext Time (p_c), s	0.4	1.7	0.2	1.5	0.5	1.8	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	1	164	40	10	97	987	22	3	929	50
v/c Ratio	1.02	0.00	0.25	0.44	0.02	0.58	0.68	0.03	0.04	0.89	0.09
Control Delay	146.1	27.0	5.4	69.9	0.1	63.2	27.6	0.1	54.7	47.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	146.1	27.0	5.4	69.9	0.1	63.2	27.6	0.1	54.7	47.4	0.3
Queue Length 50th (ft)	~89	0	0	30	0	70	278	0	2	335	0
Queue Length 95th (ft)	#214	2	48	69	0	127	417	0	13	438	0
Internal Link Dist (ft)		205					1421			2552	
Turn Bay Length (ft)	200		110	120	105	250		275	305		110
Base Capacity (vph)	107	1270	667	93	604	222	1517	729	93	1162	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.00	0.25	0.43	0.02	0.44	0.65	0.03	0.03	0.80	0.08

Intersection Summary

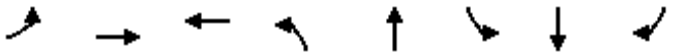
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1	161	39	0	10	95	967	22	3	910	49
Future Volume (veh/h)	107	1	161	39	0	10	95	967	22	3	910	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	109	1	164	40	0	10	97	987	22	3	929	50
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	116	1308	583	53	1184	528	121	1291	576	7	1064	474
Arrive On Green	0.07	0.40	0.40	0.03	0.00	0.36	0.07	0.39	0.39	0.00	0.33	0.33
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	109	1	164	40	0	10	97	987	22	3	929	50
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	7.0	0.0	8.1	2.6	0.0	0.5	6.2	27.8	1.0	0.2	28.5	2.5
Cycle Q Clear(g_c), s	7.0	0.0	8.1	2.6	0.0	0.5	6.2	27.8	1.0	0.2	28.5	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1308	583	53	1184	528	121	1291	576	7	1064	474
V/C Ratio(X)	0.94	0.00	0.28	0.75	0.00	0.02	0.80	0.76	0.04	0.46	0.87	0.11
Avail Cap(c_a), veh/h	116	1308	583	100	1184	528	239	1522	679	100	1245	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	19.2	21.6	51.0	0.0	21.8	48.5	27.9	19.8	52.9	33.9	25.1
Incr Delay (d2), s/veh	65.8	0.0	1.2	18.6	0.0	0.1	11.7	2.0	0.0	42.9	6.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	2.7	1.3	0.0	0.2	2.8	10.2	0.3	0.2	11.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.0	19.2	22.8	69.6	0.0	21.9	60.2	29.9	19.8	95.7	40.2	25.2
LnGrp LOS	F	B	C	E	A	C	E	C	B	F	D	C
Approach Vol, veh/h		274			50			1106			982	
Approach Delay, s/veh		59.5			60.1			32.4			39.6	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	47.0	12.3	39.1	12.0	43.0	4.9	46.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.6	10.1	8.2	30.5	9.0	2.5	2.2	29.8
Green Ext Time (p_c), s	0.0	0.5	0.1	4.1	0.0	0.0	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	184	311	13	75	1166	1	1448	40
v/c Ratio	0.67	0.76	0.05	0.73	0.55	0.01	0.80	0.05
Control Delay	45.1	33.1	30.5	82.4	9.9	45.0	18.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.1	33.1	30.5	82.4	9.9	45.0	18.9	1.7
Queue Length 50th (ft)	88	93	5	40	144	1	297	0
Queue Length 95th (ft)	168	188	22	#127	258	6	349	7
Internal Link Dist (ft)		634	200		996		1421	
Turn Bay Length (ft)	150			250		150		190
Base Capacity (vph)	385	522	366	103	2822	218	2940	1320
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.60	0.04	0.73	0.41	0.00	0.49	0.03

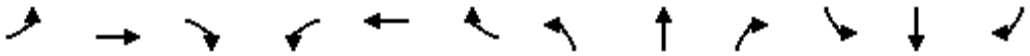
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	941	3	1	1173	32
Future Volume (veh/h)	149	0	252	7	0	3	61	941	3	1	1173	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1162	4	1	1448	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	382	0	356	103	12	19	94	2029	7	2	1802	804
Arrive On Green	0.24	0.00	0.24	0.24	0.00	0.24	0.06	0.60	0.60	0.00	0.54	0.54
Sat Flow, veh/h	1323	0	1485	123	51	77	1668	3402	12	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	568	598	1	1448	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	252	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	16.7	0.2	0.0	0.0	3.7	17.4	17.4	0.0	29.3	1.1
Cycle Q Clear(g_c), s	11.2	0.0	16.7	16.9	0.0	0.0	3.7	17.4	17.4	0.0	29.3	1.1
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	382	0	356	134	0	0	94	992	1043	2	1802	804
V/C Ratio(X)	0.48	0.00	0.87	0.10	0.00	0.00	0.80	0.57	0.57	0.44	0.80	0.05
Avail Cap(c_a), veh/h	440	0	420	182	0	0	100	1453	1528	211	3128	1395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	30.3	25.7	0.0	0.0	38.7	10.3	10.3	41.4	15.5	9.0
Incr Delay (d2), s/veh	0.9	0.0	16.1	0.3	0.0	0.0	33.3	0.5	0.5	95.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	7.4	0.2	0.0	0.0	2.3	4.7	5.0	0.1	8.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	0.0	46.5	26.0	0.0	0.0	72.0	10.8	10.8	136.9	16.3	9.0
LnGrp LOS	C	A	D	C	A	A	E	B	B	F	B	A
Approach Vol, veh/h		495			13			1241			1489	
Approach Delay, s/veh		40.1			26.0			14.5			16.2	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.4	9.2	49.4		24.4	4.6	54.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.0	78.0		23.5	10.5	72.5				
Max Q Clear Time (g_c+I1), s		18.7	5.7	31.3		18.9	2.0	19.4				
Green Ext Time (p_c), s		1.2	0.0	13.6		0.0	0.0	8.2				

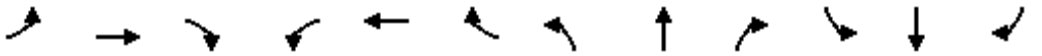
Intersection Summary												
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	259	261	91	173	204	180	811	69	278	1077	116
v/c Ratio	0.87	0.25	0.40	0.73	0.17	0.34	0.90	0.87	0.14	0.93	0.96	0.23
Control Delay	110.7	33.8	5.8	89.2	32.6	5.8	97.9	55.4	0.6	89.4	59.7	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.7	33.8	5.8	89.2	32.6	5.8	97.9	55.4	0.6	89.4	59.7	31.7
Queue Length 50th (ft)	94	85	0	76	55	0	152	342	0	232	463	69
Queue Length 95th (ft)	#208	122	63	#160	85	56	#288	#446	1	#399	#605	118
Internal Link Dist (ft)		2580			2522			1494			996	
Turn Bay Length (ft)	250		110	250		90	330		105	185		140
Base Capacity (vph)	127	1044	645	132	1041	604	205	942	510	307	1146	512
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.25	0.40	0.69	0.17	0.34	0.88	0.86	0.14	0.91	0.94	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	243	245	86	163	192	169	762	65	261	1012	109
Future Volume (veh/h)	104	243	245	86	163	192	169	762	65	261	1012	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	111	259	261	91	173	204	180	811	69	278	1077	116
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	130	1094	488	112	1058	472	203	946	422	301	1141	509
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.12	0.28	0.28	0.18	0.34	0.34
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	111	259	261	91	173	204	180	811	69	278	1077	116
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	8.5	7.3	18.4	6.9	4.8	14.0	13.7	29.7	4.5	21.1	40.4	7.2
Cycle Q Clear(g_c), s	8.5	7.3	18.4	6.9	4.8	14.0	13.7	29.7	4.5	21.1	40.4	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	1094	488	112	1058	472	203	946	422	301	1141	509
V/C Ratio(X)	0.86	0.24	0.53	0.82	0.16	0.43	0.89	0.86	0.16	0.92	0.94	0.23
Avail Cap(c_a), veh/h	130	1094	488	135	1058	472	209	957	427	313	1164	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.6	31.4	35.2	59.2	31.6	34.7	55.6	43.6	34.6	51.9	41.1	30.1
Incr Delay (d2), s/veh	39.6	0.5	4.2	26.5	0.3	2.9	32.9	7.8	0.2	31.5	14.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	2.9	7.0	3.7	1.9	5.2	7.4	12.7	1.6	11.1	17.8	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.2	31.9	39.3	85.8	31.9	37.6	88.6	51.3	34.7	83.4	55.9	30.4
LnGrp LOS	F	C	D	F	C	D	F	D	C	F	E	C
Approach Vol, veh/h		631			468			1060			1471	
Approach Delay, s/veh		46.6			44.8			56.6			59.1	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	46.8	20.2	48.6	14.5	45.4	27.7	41.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	40.5	16.1	45.0	10.0	40.9	24.1	37.0
Max Q Clear Time (g_c+I1), s	8.9	20.4	15.7	42.4	10.5	16.0	23.1	31.7
Green Ext Time (p_c), s	0.0	2.2	0.0	1.6	0.0	1.6	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	54.4
HCM 6th LOS	D

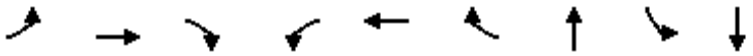
Intersection	
Int Delay, s/veh	12.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Future Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	2	26	8	5	5	27	256	21	2	212	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	28	0	0	294	161	15	298	172	8
Stage 1	-	-	-	-	-	-	135	135	-	24	24	-
Stage 2	-	-	-	-	-	-	159	26	-	274	148	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1584	-	-	1560	-	-	650	724	1053	646	714	1062
Stage 1	-	-	-	-	-	-	859	777	-	984	867	-
Stage 2	-	-	-	-	-	-	834	866	-	723	767	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1584	-	-	1560	-	-	452	692	1053	437	683	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	452	692	-	437	683	-
Stage 1	-	-	-	-	-	-	825	747	-	946	863	-
Stage 2	-	-	-	-	-	-	592	862	-	448	737	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5	3.3	14.6	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	676	1584	-	-	1560	-	-	737
HCM Lane V/C Ratio	0.45	0.038	-	-	0.005	-	-	0.37
HCM Control Delay (s)	14.6	7.4	0	-	7.3	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.3	0.1	-	-	0	-	-	1.7



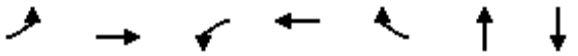
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	107	712	17	26	635	162	138	219	284
v/c Ratio	0.36	0.46	0.02	0.13	0.57	0.27	0.28	0.54	0.48
Control Delay	32.4	15.1	0.1	34.9	22.0	5.8	18.8	26.0	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	15.1	0.1	34.9	22.0	5.8	18.8	26.0	14.1
Queue Length 50th (ft)	36	72	0	9	104	2	34	67	45
Queue Length 95th (ft)	108	220	0	40	220	45	97	172	139
Internal Link Dist (ft)		2540			1252		326		432
Turn Bay Length (ft)	310		300	315		155		200	
Base Capacity (vph)	851	2292	1043	851	2292	1076	1022	852	1123
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.31	0.02	0.03	0.28	0.15	0.14	0.26	0.25

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	676	16	25	603	154	36	64	31	208	71	199
Future Volume (veh/h)	102	676	16	25	603	154	36	64	31	208	71	199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	107	712	17	26	635	162	38	67	33	219	75	209
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	146	1250	558	54	1067	476	162	235	91	505	121	338
Arrive On Green	0.08	0.36	0.36	0.03	0.31	0.31	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	187	820	316	1254	422	1177
Grp Volume(v), veh/h	107	712	17	26	635	162	138	0	0	219	0	284
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1323	0	0	1254	0	1599
Q Serve(g_s), s	2.6	7.0	0.3	0.6	6.6	3.4	0.2	0.0	0.0	0.6	0.0	6.5
Cycle Q Clear(g_c), s	2.6	7.0	0.3	0.6	6.6	3.4	6.7	0.0	0.0	7.4	0.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	0.28		0.24	1.00		0.74
Lane Grp Cap(c), veh/h	146	1250	558	54	1067	476	488	0	0	505	0	459
V/C Ratio(X)	0.73	0.57	0.03	0.48	0.60	0.34	0.28	0.00	0.00	0.43	0.00	0.62
Avail Cap(c_a), veh/h	1099	3208	1431	1099	3208	1431	1450	0	0	1330	0	1510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	10.8	8.7	20.2	12.4	11.3	11.8	0.0	0.0	13.4	0.0	13.1
Incr Delay (d2), s/veh	7.0	0.4	0.0	6.6	0.5	0.4	0.3	0.0	0.0	0.6	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.6	0.1	0.3	1.7	0.8	0.9	0.0	0.0	1.6	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	11.2	8.7	26.8	12.9	11.7	12.1	0.0	0.0	14.0	0.0	14.5
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		836			823			138			503	
Approach Delay, s/veh		13.1			13.1			12.1			14.3	
Approach LOS		B			B			B			B	

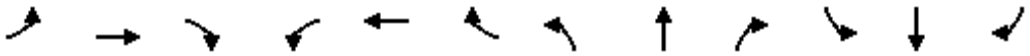
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	19.9		16.7	8.1	17.6		16.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.6	9.0		9.4	4.6	8.6		8.7				
Green Ext Time (p_c), s	0.0	4.6		2.8	0.2	4.5		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		13.3	
HCM 6th LOS		B	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	42	611	87	355	78	298	591
v/c Ratio	0.26	0.74	0.51	0.38	0.17	0.42	0.91
Control Delay	55.9	45.3	63.2	35.3	8.8	15.1	45.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	45.3	63.2	35.3	8.8	15.1	45.9
Queue Length 50th (ft)	31	228	65	120	0	103	402
Queue Length 95th (ft)	58	242	102	141	26	135	447
Internal Link Dist (ft)		2522		5186		2733	479
Turn Bay Length (ft)	250		325		150		
Base Capacity (vph)	171	926	181	1033	515	804	731
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.66	0.48	0.34	0.15	0.37	0.81

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	420	51	67	273	60	44	61	125	179	173	103
Future Volume (veh/h)	32	420	51	67	273	60	44	61	125	179	173	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	42	545	66	87	355	78	57	79	162	232	225	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	114	705	85	149	855	381	153	214	388	302	259	150
Arrive On Green	0.07	0.23	0.23	0.09	0.25	0.25	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1682	3015	364	1682	3357	1497	221	424	768	503	514	298
Grp Volume(v), veh/h	42	303	308	87	355	78	298	0	0	591	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1701	1682	1678	1497	1413	0	0	1314	0	0
Q Serve(g_s), s	2.5	17.5	17.6	5.2	9.2	4.3	0.0	0.0	0.0	30.3	0.0	0.0
Cycle Q Clear(g_c), s	2.5	17.5	17.6	5.2	9.2	4.3	12.4	0.0	0.0	42.8	0.0	0.0
Prop In Lane	1.00		0.21	1.00		1.00	0.19		0.54	0.39		0.23
Lane Grp Cap(c), veh/h	114	392	398	149	855	381	754	0	0	711	0	0
V/C Ratio(X)	0.37	0.77	0.78	0.58	0.42	0.20	0.40	0.00	0.00	0.83	0.00	0.00
Avail Cap(c_a), veh/h	175	477	483	186	976	435	871	0	0	824	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.3	37.2	37.2	45.5	32.3	30.4	15.7	0.0	0.0	24.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	11.7	11.8	3.6	1.2	1.0	1.2	0.0	0.0	9.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	8.0	8.1	2.2	3.6	1.5	4.3	0.0	0.0	13.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	48.9	49.1	49.1	33.4	31.4	16.9	0.0	0.0	33.7	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		653			520			298			591	
Approach Delay, s/veh		48.9			35.8			16.9			33.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	31.3		59.4	11.0	33.5		59.4				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	7.2	19.6		14.4	4.5	11.2		44.8				
Green Ext Time (p_c), s	0.1	4.7		5.4	0.0	5.0		7.7				

Intersection Summary												
HCM 6th Ctrl Delay			36.6									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	15	0	0	0
Future Vol, veh/h	0	23	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	52	34	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	86	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1591	-	-	-	920	1045
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	920	1045
Mov Cap-2 Maneuver	-	-	-	-	920	-
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-

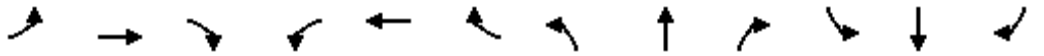
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	77	905	12	624	87	9	15	262	206
v/c Ratio	0.32	0.58	0.07	0.57	0.18	0.05	0.08	0.57	0.48
Control Delay	32.1	14.5	34.0	21.0	18.5	34.1	31.8	31.6	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	14.5	34.0	21.0	18.5	34.1	31.8	31.6	27.6
Queue Length 50th (ft)	24	91	4	93	21	3	5	77	59
Queue Length 95th (ft)	84	291	24	208	71	20	27	#304	186
Internal Link Dist (ft)		1213		1278			262		404
Turn Bay Length (ft)	300		300		200	200		300	
Base Capacity (vph)	447	2674	447	2677	1197	447	553	459	534
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.34	0.03	0.23	0.07	0.02	0.03	0.57	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	852	8	11	593	83	9	4	10	249	11	184
Future Volume (veh/h)	73	852	8	11	593	83	9	4	10	249	11	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	77	897	8	12	624	87	9	4	11	262	12	194
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	111	1277	11	26	1087	485	20	8	22	324	18	284
Arrive On Green	0.07	0.37	0.37	0.02	0.32	0.32	0.01	0.02	0.02	0.19	0.20	0.20
Sat Flow, veh/h	1682	3409	30	1682	3357	1497	1682	416	1144	1682	88	1423
Grp Volume(v), veh/h	77	442	463	12	624	87	9	0	15	262	0	206
Grp Sat Flow(s),veh/h/ln	1682	1678	1761	1682	1678	1497	1682	0	1561	1682	0	1511
Q Serve(g_s), s	2.2	11.0	11.0	0.3	7.6	2.1	0.3	0.0	0.5	7.3	0.0	6.2
Cycle Q Clear(g_c), s	2.2	11.0	11.0	0.3	7.6	2.1	0.3	0.0	0.5	7.3	0.0	6.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.73	1.00		0.94
Lane Grp Cap(c), veh/h	111	629	660	26	1087	485	20	0	29	324	0	301
V/C Ratio(X)	0.69	0.70	0.70	0.46	0.57	0.18	0.45	0.00	0.51	0.81	0.00	0.68
Avail Cap(c_a), veh/h	531	1670	1752	531	3339	1489	531	0	651	531	0	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.5	13.0	13.0	24.0	13.8	11.9	24.1	0.0	23.9	19.0	0.0	18.2
Incr Delay (d2), s/veh	7.4	1.4	1.4	12.4	0.5	0.2	15.4	0.0	13.0	4.8	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.0	3.1	0.2	2.1	0.6	0.2	0.0	0.3	3.0	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	14.5	14.4	36.4	14.3	12.1	39.6	0.0	36.9	23.8	0.0	21.0
LnGrp LOS	C	B	B	D	B	B	D	A	D	C	A	C
Approach Vol, veh/h		982			723			24			468	
Approach Delay, s/veh		15.7			14.4			37.9			22.6	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	24.5	5.1	14.3	7.8	22.0	14.0	5.4
Change Period (Y+Rc), s	4.5	6.1	4.5	4.5	4.5	6.1	4.5	4.5
Max Green Setting (Gmax), s	15.5	48.9	15.5	20.5	15.5	48.9	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.3	13.0	2.3	8.2	4.2	9.6	9.3	2.5
Green Ext Time (p_c), s	0.0	5.4	0.0	0.9	0.1	4.3	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	137	36	32	23	3	29	89	70	7	38	7
Future Vol, veh/h	9	137	36	32	23	3	29	89	70	7	38	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	180	47	42	30	4	38	117	92	9	50	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	8.8	9.8	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	5%	55%	13%
Vol Thru, %	47%	75%	40%	73%
Vol Right, %	37%	20%	5%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	188	182	58	52
LT Vol	29	9	32	7
Through Vol	89	137	23	38
RT Vol	70	36	3	7
Lane Flow Rate	247	239	76	68
Geometry Grp	1	1	1	1
Degree of Util (X)	0.318	0.313	0.108	0.095
Departure Headway (Hd)	4.628	4.71	5.1	4.987
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	774	759	698	714
Service Time	2.676	2.76	3.164	3.05
HCM Lane V/C Ratio	0.319	0.315	0.109	0.095
HCM Control Delay	9.8	9.9	8.8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.4	1.3	0.4	0.3

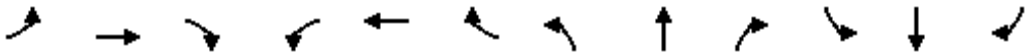
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	23	0	0	0	15	190	0	0	116	0
Future Vol, veh/h	0	0	23	0	0	0	15	190	0	0	116	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	26	0	0	0	17	211	0	0	129	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	374	374	129	387	374	211	129	0	0	-	-	0
Stage 1	129	129	-	245	245	-	-	-	-	-	-	-
Stage 2	245	245	-	142	129	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	-	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	-	-	-
Pot Cap-1 Maneuver	570	546	902	559	546	812	1414	-	-	0	-	-
Stage 1	858	776	-	743	691	-	-	-	-	0	-	-
Stage 2	743	691	-	844	776	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	564	538	902	537	538	812	1414	-	-	-	-	-
Mov Cap-2 Maneuver	564	538	-	537	538	-	-	-	-	-	-	-
Stage 1	846	776	-	733	681	-	-	-	-	-	-	-
Stage 2	733	681	-	820	776	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	0	0.6	0
HCM LOS	A	A		

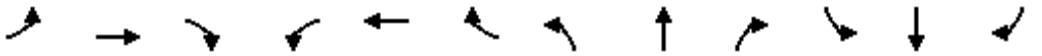
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1414	-	-	902	-	-	-
HCM Lane V/C Ratio	0.012	-	-	0.028	-	-	-
HCM Control Delay (s)	7.6	0	-	9.1	0	-	-
HCM Lane LOS	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	146	749	369	193	468	229	238	462	195	219	524	53
v/c Ratio	0.66	0.72	0.80	0.77	0.43	0.47	0.79	0.62	0.58	0.76	0.72	0.16
Control Delay	61.1	37.4	48.0	66.2	30.3	33.5	62.7	41.9	46.2	60.8	45.5	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	37.4	48.0	66.2	30.3	33.5	62.7	41.9	46.2	60.8	45.5	37.4
Queue Length 50th (ft)	97	241	232	130	134	127	157	154	123	143	179	30
Queue Length 95th (ft)	#185	332	372	#279	198	218	#317	221	210	#282	252	68
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	225		200	300		300
Base Capacity (vph)	271	1350	604	271	1350	604	341	999	447	341	999	447
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.55	0.61	0.71	0.35	0.38	0.70	0.46	0.44	0.64	0.52	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	682	336	176	426	208	217	420	177	199	477	48
Future Volume (veh/h)	133	682	336	176	426	208	217	420	177	199	477	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	749	369	193	468	229	238	462	195	219	524	53
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	182	1066	475	231	1164	519	279	734	327	260	696	310
Arrive On Green	0.10	0.30	0.30	0.13	0.33	0.33	0.16	0.21	0.21	0.15	0.20	0.20
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	749	369	193	468	229	238	462	195	219	524	53
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.9	16.0	18.2	9.1	8.7	9.7	11.2	10.2	9.5	10.3	11.9	2.4
Cycle Q Clear(g_c), s	6.9	16.0	18.2	9.1	8.7	9.7	11.2	10.2	9.5	10.3	11.9	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	1066	475	231	1164	519	279	734	327	260	696	310
V/C Ratio(X)	0.80	0.70	0.78	0.83	0.40	0.44	0.85	0.63	0.60	0.84	0.75	0.17
Avail Cap(c_a), veh/h	322	1595	711	322	1595	711	405	1181	527	405	1181	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	26.3	27.1	36.1	22.0	22.3	34.9	30.7	30.5	35.3	32.2	28.4
Incr Delay (d2), s/veh	8.0	0.9	3.1	12.5	0.2	0.6	11.3	0.9	1.7	9.1	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.1	6.6	4.4	3.2	3.4	5.4	4.1	3.5	4.8	4.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	27.2	30.2	48.6	22.2	22.9	46.1	31.6	32.2	44.5	33.9	28.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1264			890			895			796	
Approach Delay, s/veh		30.1			28.1			35.6			36.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	30.2	17.9	21.3	13.3	32.6	17.0	22.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	11.1	20.2	13.2	13.9	8.9	11.7	12.3	12.2
Green Ext Time (p_c), s	0.2	5.5	0.3	2.9	0.2	3.5	0.3	3.1

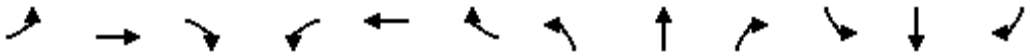
Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	284.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	38	93	71	2	112	37	665	105	155	887	4
Future Vol, veh/h	57	38	93	71	2	112	37	665	105	155	887	4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	76	51	124	95	3	149	49	887	140	207	1183	5
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	69.9	31.7	275.4	374.5
HCM LOS	F	D	F	F

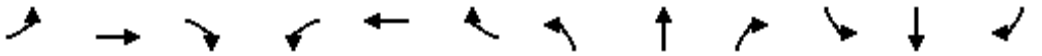
Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	68%	20%	0%	2%	0%	100%	99%
Vol Right, %	0%	0%	32%	49%	0%	98%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	443	327	188	71	114	155	591	300
LT Vol	37	0	0	57	71	0	155	0	0
Through Vol	0	443	222	38	0	2	0	591	296
RT Vol	0	0	105	93	0	112	0	0	4
Lane Flow Rate	49	591	436	251	95	152	207	788	400
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.152	1.74	1.255	0.848	0.342	0.499	0.616	2.239	1.134
Departure Headway (Hd)	12.473	11.946	11.709	16.035	17.242	16.006	11.655	11.129	11.119
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	290	307	314	228	210	226	312	339	332
Service Time	10.173	9.646	9.409	13.735	14.942	13.706	9.355	8.829	8.819
HCM Lane V/C Ratio	0.169	1.925	1.389	1.101	0.452	0.673	0.663	2.324	1.205
HCM Control Delay	17.4	373.7	171.3	69.9	28.6	33.7	31.4	590.8	125.1
HCM Lane LOS	C	F	F	F	D	D	D	F	F
HCM 95th-tile Q	0.5	33.7	17.9	6.6	1.4	2.5	3.8	55	14.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	151	12	258	69	11	2	86	811	111	7	1160	75
v/c Ratio	0.61	0.03	0.67	0.41	0.04	0.01	0.46	0.45	0.14	0.07	0.82	0.12
Control Delay	49.6	28.3	42.2	49.9	33.0	32.5	49.6	16.9	15.4	48.2	33.5	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	28.3	42.2	49.9	33.0	32.5	49.6	16.9	15.4	48.2	33.5	22.7
Queue Length 50th (ft)	85	6	142	39	5	1	48	144	31	4	330	28
Queue Length 95th (ft)	149	19	216	84	20	7	98	260	80	18	#504	66
Internal Link Dist (ft)		254			879			1396			1749	
Turn Bay Length (ft)	275		275	275		275	200		400	115		400
Base Capacity (vph)	353	933	793	211	785	667	252	1869	836	100	1410	631
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.01	0.33	0.33	0.01	0.00	0.34	0.43	0.13	0.07	0.82	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	10	217	58	9	2	72	681	93	6	974	63
Future Volume (veh/h)	127	10	217	58	9	2	72	681	93	6	974	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	12	258	69	11	2	86	811	111	7	1160	75
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	193	372	315	94	267	227	111	1643	733	16	1453	648
Arrive On Green	0.11	0.20	0.20	0.05	0.15	0.15	0.06	0.47	0.47	0.01	0.42	0.42
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	151	12	258	69	11	2	86	811	111	7	1160	75
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	5.7	0.4	10.7	2.6	0.3	0.1	3.3	10.8	2.8	0.3	19.7	2.0
Cycle Q Clear(g_c), s	5.7	0.4	10.7	2.6	0.3	0.1	3.3	10.8	2.8	0.3	19.7	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	372	315	94	267	227	111	1643	733	16	1453	648
V/C Ratio(X)	0.78	0.03	0.82	0.73	0.04	0.01	0.77	0.49	0.15	0.44	0.80	0.12
Avail Cap(c_a), veh/h	453	1195	1013	272	1005	852	323	2193	978	129	1806	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	21.7	25.9	31.6	24.9	24.8	31.3	12.4	10.3	33.4	17.3	12.2
Incr Delay (d2), s/veh	6.7	0.0	5.3	10.5	0.1	0.0	10.8	0.2	0.1	17.8	2.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	4.1	1.3	0.2	0.0	1.6	3.6	0.8	0.2	6.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	21.8	31.1	42.1	25.0	24.8	42.0	12.6	10.4	51.2	19.4	12.2
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		421			82			1008			1242	
Approach Delay, s/veh		32.6			39.4			14.9			19.2	
Approach LOS		C			D			B			B	

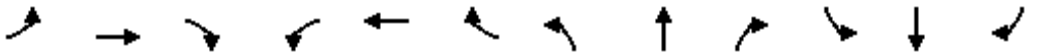
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	18.2	8.8	32.7	12.0	14.3	5.1	36.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	4.6	12.7	5.3	21.7	7.7	2.3	2.3	12.8
Green Ext Time (p_c), s	0.1	1.0	0.1	6.5	0.3	0.0	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	183	786	56	264	127	129	691	97	186	1167	126
v/c Ratio	0.76	0.68	0.74	0.35	0.27	0.85	0.60	0.15	0.76	0.87	0.21
Control Delay	68.0	33.2	105.3	40.9	3.2	95.1	34.3	0.5	67.4	39.7	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	33.2	105.3	40.9	3.2	95.1	34.3	0.5	67.4	39.7	23.9
Queue Length 50th (ft)	136	249	44	93	0	100	229	0	138	416	61
Queue Length 95th (ft)	204	304	#113	130	13	#205	280	0	207	474	100
Internal Link Dist (ft)		5186		5169			2609			1396	
Turn Bay Length (ft)	270		270		205	260		200	170		365
Base Capacity (vph)	286	1153	76	751	474	152	1229	663	294	1510	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.68	0.74	0.35	0.27	0.85	0.56	0.15	0.63	0.77	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	430	246	48	227	109	111	594	83	160	1004	108
Future Volume (veh/h)	157	430	246	48	227	109	111	594	83	160	1004	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	183	500	286	56	264	127	129	691	97	186	1167	126
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	212	699	399	71	859	383	152	1210	540	216	1336	596
Arrive On Green	0.12	0.33	0.33	0.04	0.25	0.25	0.09	0.35	0.35	0.12	0.39	0.39
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	183	407	379	56	264	127	129	691	97	186	1167	126
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	11.8	23.5	23.6	3.6	7.1	7.7	8.3	18.5	5.0	12.0	35.6	6.2
Cycle Q Clear(g_c), s	11.8	23.5	23.6	3.6	7.1	7.7	8.3	18.5	5.0	12.0	35.6	6.2
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	570	528	71	859	383	152	1210	540	216	1336	596
V/C Ratio(X)	0.86	0.71	0.72	0.78	0.31	0.33	0.85	0.57	0.18	0.86	0.87	0.21
Avail Cap(c_a), veh/h	286	570	528	76	859	383	152	1222	545	294	1505	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	33.6	33.7	54.2	35.0	35.2	51.3	30.2	25.8	49.0	32.5	23.5
Incr Delay (d2), s/veh	17.8	7.5	8.1	38.4	0.9	2.3	33.4	0.6	0.2	17.3	5.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	10.4	9.8	2.3	2.9	3.1	5.0	7.6	1.8	6.1	15.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	41.1	41.8	92.6	35.9	37.5	84.7	30.9	26.0	66.4	38.0	23.7
LnGrp LOS	E	D	D	F	D	D	F	C	C	E	D	C
Approach Vol, veh/h		969			447			917			1479	
Approach Delay, s/veh		46.3			43.5			37.9			40.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	42.0	14.5	48.4	18.4	32.8	18.7	44.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.6	25.6	10.3	37.6	13.8	9.7	14.0	20.5
Green Ext Time (p_c), s	0.0	3.4	0.0	6.4	0.2	1.5	0.2	4.7

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

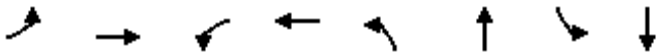
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	38	87	977	99	1328
v/c Ratio	0.09	0.20	0.51	0.56	0.54
Control Delay	37.4	8.9	17.7	63.0	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	8.9	17.7	63.0	10.0
Queue Length 50th (ft)	23	0	231	74	238
Queue Length 95th (ft)	54	42	315	127	288
Internal Link Dist (ft)	759		1603		2609
Turn Bay Length (ft)	200			200	
Base Capacity (vph)	401	426	1932	299	2438
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.20	0.51	0.33	0.54

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	78	796	84	89	1195
Future Volume (veh/h)	34	78	796	84	89	1195
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	38	87	884	93	99	1328
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1892	199	124	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3312	339	1767	3618
Grp Volume(v), veh/h	38	87	484	493	99	1328
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1795	1767	1763
Q Serve(g_s), s	2.0	5.4	18.7	18.7	6.6	22.1
Cycle Q Clear(g_c), s	2.0	5.4	18.7	18.7	6.6	22.1
Prop In Lane	1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	405	360	1036	1055	124	2453
V/C Ratio(X)	0.09	0.24	0.47	0.47	0.80	0.54
Avail Cap(c_a), veh/h	405	360	1036	1055	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	37.7	14.0	14.0	54.9	8.9
Incr Delay (d2), s/veh	0.5	1.6	1.5	1.5	10.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.3	7.4	7.5	3.3	7.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.9	39.3	15.6	15.5	65.8	9.8
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	125		977			1427
Approach Delay, s/veh	38.6		15.5			13.7
Approach LOS	D		B			B

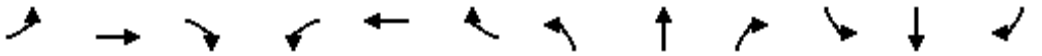
Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				88.0		32.0	12.9	75.1
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s				24.1		7.4	8.6	20.7
Green Ext Time (p_c), s				12.9		0.3	0.2	7.0

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	1217	42	1149	44	68	28	22
v/c Ratio	0.07	0.55	0.20	0.46	0.21	0.28	0.15	0.09
Control Delay	37.9	12.7	36.1	8.0	36.4	34.1	37.7	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	12.7	36.1	8.0	36.4	34.1	37.7	25.4
Queue Length 50th (ft)	4	161	15	72	15	24	10	4
Queue Length 95th (ft)	23	334	55	283	58	76	43	28
Internal Link Dist (ft)		1246		2538		560		253
Turn Bay Length (ft)	150		150		150		150	
Base Capacity (vph)	164	3225	244	3280	234	584	190	587
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.38	0.17	0.35	0.19	0.12	0.15	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1048	59	38	1008	38	40	18	44	26	11	9
Future Volume (veh/h)	10	1048	59	38	1008	38	40	18	44	26	11	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	11	1152	65	42	1108	41	44	20	48	28	12	10
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	25	1620	91	77	1758	65	80	45	108	57	75	62
Arrive On Green	0.01	0.48	0.48	0.04	0.51	0.51	0.05	0.09	0.09	0.03	0.08	0.08
Sat Flow, veh/h	1781	3393	191	1767	3467	128	1767	488	1171	1781	943	786
Grp Volume(v), veh/h	11	598	619	42	563	586	44	0	68	28	0	22
Grp Sat Flow(s),veh/h/ln	1781	1763	1821	1767	1763	1832	1767	0	1660	1781	0	1729
Q Serve(g_s), s	0.3	13.9	13.9	1.2	12.0	12.0	1.3	0.0	2.0	0.8	0.0	0.6
Cycle Q Clear(g_c), s	0.3	13.9	13.9	1.2	12.0	12.0	1.3	0.0	2.0	0.8	0.0	0.6
Prop In Lane	1.00		0.11	1.00		0.07	1.00		0.71	1.00		0.45
Lane Grp Cap(c), veh/h	25	842	869	77	894	929	80	0	153	57	0	137
V/C Ratio(X)	0.44	0.71	0.71	0.54	0.63	0.63	0.55	0.00	0.44	0.49	0.00	0.16
Avail Cap(c_a), veh/h	172	2369	2448	257	2461	2559	236	0	611	200	0	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	10.7	10.7	24.2	9.2	9.2	24.1	0.0	22.2	24.6	0.0	22.2
Incr Delay (d2), s/veh	11.5	1.1	1.1	5.8	0.7	0.7	5.8	0.0	2.0	6.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.4	3.5	0.5	2.7	2.8	0.6	0.0	0.8	0.4	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	11.8	11.8	30.0	10.0	9.9	29.9	0.0	24.2	31.0	0.0	22.7
LnGrp LOS	D	B	B	C	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1228			1191			112			50	
Approach Delay, s/veh		12.0			10.6			26.4			27.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	29.4	6.8	8.7	5.2	30.9	6.2	9.4
Change Period (Y+Rc), s	4.5	* 4.7	4.5	* 4.6	4.5	* 4.7	4.5	* 4.6
Max Green Setting (Gmax), s	7.5	* 69	6.9	* 18	5.0	* 72	5.8	* 19
Max Q Clear Time (g_c+I1), s	3.2	15.9	3.3	2.6	2.3	14.0	2.8	4.0
Green Ext Time (p_c), s	0.0	8.8	0.0	0.0	0.0	8.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	249	14	62	157	35	5	12	62	17	11	6
Future Vol, veh/h	17	249	14	62	157	35	5	12	62	17	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	20	286	16	71	180	40	6	14	71	20	13	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	220	0	0	302	0	0	686	696	294	719	684	200
Stage 1	-	-	-	-	-	-	334	334	-	342	342	-
Stage 2	-	-	-	-	-	-	352	362	-	377	342	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1355	-	-	1265	-	-	363	367	748	345	372	843
Stage 1	-	-	-	-	-	-	682	645	-	675	640	-
Stage 2	-	-	-	-	-	-	667	627	-	647	640	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1355	-	-	1265	-	-	331	341	748	286	346	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	341	-	286	346	-
Stage 1	-	-	-	-	-	-	672	635	-	665	604	-
Stage 2	-	-	-	-	-	-	611	592	-	564	630	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	2	11.9	16.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	331	627	1355	-	-	1265	-	-	346
HCM Lane V/C Ratio	0.017	0.136	0.014	-	-	0.056	-	-	0.113
HCM Control Delay (s)	16.1	11.6	7.7	-	-	8	-	-	16.7
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.5	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	136	39	44	55	1	30	0	59	0	1	1
Future Vol, veh/h	0	136	39	44	55	1	30	0	59	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	153	44	49	62	1	34	0	66	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	197	0	0	337	336	175	369	358	63
Stage 1	-	-	-	-	-	-	175	175	-	161	161	-
Stage 2	-	-	-	-	-	-	162	161	-	208	197	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1546	-	-	1382	-	-	619	586	871	589	570	1004
Stage 1	-	-	-	-	-	-	829	756	-	843	767	-
Stage 2	-	-	-	-	-	-	842	767	-	796	740	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1546	-	-	1382	-	-	600	564	871	529	549	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	600	564	-	529	549	-
Stage 1	-	-	-	-	-	-	829	756	-	843	739	-
Stage 2	-	-	-	-	-	-	809	739	-	735	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.4	10.5	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	756	1546	-	-	1382	-	-	710
HCM Lane V/C Ratio	0.132	-	-	-	0.036	-	-	0.003
HCM Control Delay (s)	10.5	0	-	-	7.7	0	-	10.1
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0

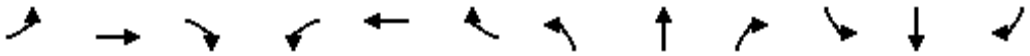
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	9	0	4	0	86	22	11	71	0
Future Vol, veh/h	0	0	0	9	0	4	0	86	22	11	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	10	0	4	0	92	24	12	76	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	206	216	76	204	204	104	76	0	0	116	0	0
Stage 1	100	100	-	104	104	-	-	-	-	-	-	-
Stage 2	106	116	-	100	100	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	756	685	991	758	696	956	1536	-	-	1485	-	-
Stage 1	911	816	-	907	813	-	-	-	-	-	-	-
Stage 2	905	803	-	911	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	748	680	991	753	690	956	1536	-	-	1485	-	-
Mov Cap-2 Maneuver	748	680	-	753	690	-	-	-	-	-	-	-
Stage 1	911	809	-	907	813	-	-	-	-	-	-	-
Stage 2	901	803	-	904	809	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.5	0	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1536	-	-	-	806	1485	-	-
HCM Lane V/C Ratio	-	-	-	-	0.017	0.008	-	-
HCM Control Delay (s)	0	-	-	0	9.5	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-

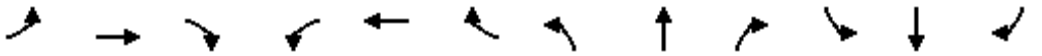


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	847	323	122	650	97	413	250	204	48	89	100
v/c Ratio	0.74	0.95	0.37	0.60	0.66	0.11	3.53	0.68	0.43	0.55	0.16	0.27
Control Delay	84.1	48.0	8.8	55.7	22.5	3.4	1175.5	48.3	7.8	73.2	36.1	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.1	48.0	8.8	55.7	22.5	3.4	1175.5	48.3	7.8	73.2	36.1	4.4
Queue Length 50th (ft)	55	517	44	76	293	0	~483	155	0	31	26	0
Queue Length 95th (ft)	#151	#929	127	142	494	27	#725	239	57	#92	48	22
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	115	894	864	267	989	885	117	676	704	87	1224	636
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.95	0.37	0.46	0.66	0.11	3.53	0.37	0.29	0.55	0.07	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



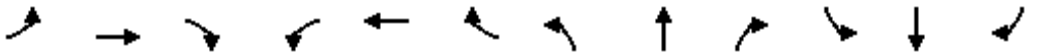
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	779	297	112	598	89	380	230	188	44	82	92
Future Volume (veh/h)	78	779	297	112	598	89	380	230	188	44	82	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	847	323	122	650	97	413	250	204	48	89	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	981	831	153	1028	871	122	315	267	66	487	217
Arrive On Green	0.06	0.52	0.52	0.09	0.55	0.55	0.07	0.17	0.17	0.04	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	85	847	323	122	650	97	413	250	204	48	89	100
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	4.6	38.5	11.9	6.6	23.5	2.9	6.7	12.5	12.0	2.6	2.2	5.7
Cycle Q Clear(g_c), s	4.6	38.5	11.9	6.6	23.5	2.9	6.7	12.5	12.0	2.6	2.2	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	981	831	153	1028	871	122	315	267	66	487	217
V/C Ratio(X)	0.78	0.86	0.39	0.80	0.63	0.11	3.38	0.79	0.76	0.72	0.18	0.46
Avail Cap(c_a), veh/h	120	981	831	279	1028	871	122	702	595	91	1273	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	20.2	13.9	43.8	15.2	10.6	45.5	39.0	38.8	46.5	37.3	38.8
Incr Delay (d2), s/veh	25.8	10.0	1.4	9.1	3.0	0.3	1092.5	4.5	4.5	16.2	0.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	16.5	4.1	3.1	9.0	1.0	39.9	5.9	4.8	1.4	0.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.1	30.2	15.2	53.0	18.2	10.8	1138.1	43.6	43.3	62.7	37.5	40.4
LnGrp LOS	E	C	B	D	B	B	F	D	D	E	D	D
Approach Vol, veh/h		1255			869			867			237	
Approach Delay, s/veh		29.1			22.2			564.9			43.8	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	55.8	11.2	17.9	10.4	58.2	8.1	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.6	40.5	8.7	7.7	6.6	25.5	4.6	14.5
Green Ext Time (p_c), s	0.1	2.5	0.0	0.8	0.0	4.3	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	172.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	38	332	115	191	243	563	268	37	396
v/c Ratio	0.42	0.57	0.65	0.26	0.80	0.75	0.34	0.39	0.46
Control Delay	68.8	33.4	67.6	24.0	65.9	38.2	5.2	67.2	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	33.4	67.6	24.0	65.9	38.2	5.2	67.2	38.9
Queue Length 50th (ft)	29	189	86	96	181	385	8	28	134
Queue Length 95th (ft)	67	289	149	156	269	535	63	65	187
Internal Link Dist (ft)		893		833		2596			2597
Turn Bay Length (ft)	150		150		215			230	
Base Capacity (vph)	93	586	208	747	362	752	790	97	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.57	0.55	0.26	0.67	0.75	0.34	0.38	0.46

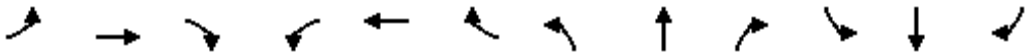
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	158	154	108	143	37	228	529	252	35	340	32
Future Volume (veh/h)	36	158	154	108	143	37	228	529	252	35	340	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	168	164	115	152	39	243	563	268	37	362	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	294	287	142	556	143	274	738	625	54	889	83
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.27	0.27
Sat Flow, veh/h	1781	869	848	1781	1436	368	1781	1870	1585	1781	3285	307
Grp Volume(v), veh/h	38	0	332	115	0	191	243	563	268	37	195	201
Grp Sat Flow(s),veh/h/ln	1781	0	1718	1781	0	1804	1781	1870	1585	1781	1777	1815
Q Serve(g_s), s	2.4	0.0	18.2	7.3	0.0	8.3	15.3	29.9	14.1	2.4	10.3	10.4
Cycle Q Clear(g_c), s	2.4	0.0	18.2	7.3	0.0	8.3	15.3	29.9	14.1	2.4	10.3	10.4
Prop In Lane	1.00		0.49	1.00		0.20	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	55	0	581	142	0	699	274	738	625	54	481	491
V/C Ratio(X)	0.70	0.00	0.57	0.81	0.00	0.27	0.89	0.76	0.43	0.69	0.41	0.41
Avail Cap(c_a), veh/h	95	0	581	210	0	699	365	738	625	98	481	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	31.1	51.9	0.0	24.0	47.5	30.0	25.3	55.0	34.2	34.3
Incr Delay (d2), s/veh	14.8	0.0	4.0	13.6	0.0	1.0	17.9	7.3	2.1	14.4	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	7.8	3.7	0.0	3.6	7.9	14.2	5.4	1.2	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	0.0	35.1	65.5	0.0	25.0	65.4	37.4	27.4	69.5	36.7	36.8
LnGrp LOS	E	A	D	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		370			306			1074			433	
Approach Delay, s/veh		38.7			40.2			41.2			39.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.3	22.1	35.5	8.0	48.9	8.0	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	20.2	17.3	12.4	4.4	10.3	4.4	31.9
Green Ext Time (p_c), s	0.1	1.7	0.3	1.8	0.0	1.0	0.0	3.6

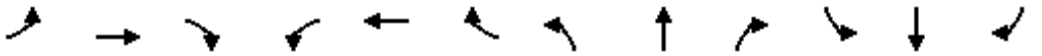
Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	135	462	89	113	248	243	192	865	152	255	482	68
v/c Ratio	0.69	0.42	0.16	0.64	0.23	0.38	0.78	0.86	0.30	0.84	0.43	0.14
Control Delay	78.7	40.9	8.2	78.6	39.4	6.6	79.8	57.2	21.6	79.4	39.1	35.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	40.9	8.2	78.6	39.4	6.6	79.8	57.2	21.6	79.4	39.1	35.7
Queue Length 50th (ft)	124	185	0	104	94	0	175	400	53	231	183	44
Queue Length 95th (ft)	201	253	44	175	141	68	271	501	117	#373	248	87
Internal Link Dist (ft)		5169			2618			840			2596	
Turn Bay Length (ft)	240		195	300		130	265		100	110		80
Base Capacity (vph)	253	1105	555	227	1063	645	305	1157	569	357	1261	564
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.42	0.16	0.50	0.23	0.38	0.63	0.75	0.27	0.71	0.38	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	453	87	111	243	238	188	848	149	250	472	67
Future Volume (veh/h)	132	453	87	111	243	238	188	848	149	250	472	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	462	89	113	248	243	192	865	152	255	482	68
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	1192	532	139	1145	511	221	1014	452	284	1140	509
Arrive On Green	0.09	0.34	0.34	0.08	0.32	0.32	0.12	0.29	0.29	0.16	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	135	462	89	113	248	243	192	865	152	255	482	68
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.4	12.6	5.0	7.9	6.4	15.6	13.4	29.1	9.6	17.8	13.5	3.9
Cycle Q Clear(g_c), s	9.4	12.6	5.0	7.9	6.4	15.6	13.4	29.1	9.6	17.8	13.5	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	1192	532	139	1145	511	221	1014	452	284	1140	509
V/C Ratio(X)	0.83	0.39	0.17	0.82	0.22	0.48	0.87	0.85	0.34	0.90	0.42	0.13
Avail Cap(c_a), veh/h	274	1192	532	246	1145	511	330	1248	557	387	1360	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	32.2	29.7	57.5	31.3	34.4	54.5	42.8	35.8	52.2	33.8	30.5
Incr Delay (d2), s/veh	10.5	1.0	0.7	11.0	0.4	3.2	15.0	5.0	0.4	18.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	5.3	2.0	3.9	2.7	6.3	6.8	13.0	3.7	9.2	5.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	33.1	30.3	68.5	31.7	37.5	69.5	47.8	36.2	70.7	34.1	30.6
LnGrp LOS	E	C	C	E	C	D	E	D	D	E	C	C
Approach Vol, veh/h		686			604			1209			805	
Approach Delay, s/veh		39.5			40.9			49.8			45.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	47.0	20.2	45.2	16.0	45.3	24.7	40.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	42.5	23.5	48.5	19.5	40.5	27.5	44.5
Max Q Clear Time (g_c+I1), s	9.9	14.6	15.4	15.5	11.4	17.6	19.8	31.1
Green Ext Time (p_c), s	0.1	3.0	0.3	3.3	0.2	2.1	0.4	5.0

Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

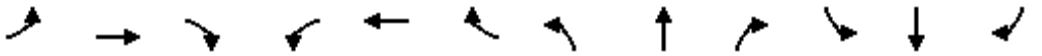
Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	1	174	16	5	105
Future Vol, veh/h	11	1	174	16	5	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	12	1	193	18	6	117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	331	202	0	0	211	0
Stage 1	202	-	-	-	-	-
Stage 2	129	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	650	821	-	-	1319	-
Stage 1	815	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	647	821	-	-	1319	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	876	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	659	1319	-
HCM Lane V/C Ratio	-	-	0.02	0.004	-
HCM Control Delay (s)	-	-	10.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	794	9	21	716	0	5	0	47	0	0	0
Future Volume (veh/h)	39	794	9	21	716	0	5	0	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	845	10	22	762	0	5	0	50			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	437	2010	24	36	2187	0	30	0	303			
Arrive On Green	0.62	0.62	0.62	0.02	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	632	3226	38	1598	3272	0	131	0	1306			
Grp Volume(v), veh/h	41	417	438	22	762	0	55	0	0			
Grp Sat Flow(s),veh/h/ln	632	1594	1671	1598	1594	0	1436	0	0			
Q Serve(g_s), s	3.1	14.7	14.7	1.5	10.8	0.0	3.4	0.0	0.0			
Cycle Q Clear(g_c), s	7.0	14.7	14.7	1.5	10.8	0.0	3.4	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.09		0.91			
Lane Grp Cap(c), veh/h	437	993	1041	36	2187	0	333	0	0			
V/C Ratio(X)	0.09	0.42	0.42	0.62	0.35	0.00	0.17	0.00	0.00			
Avail Cap(c_a), veh/h	437	993	1041	182	2479	0	333	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.0	10.6	10.6	53.3	7.1	0.0	33.7	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.3	1.2	16.2	0.1	0.0	1.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.6	4.8	0.7	2.8	0.0	1.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	11.9	11.8	69.5	7.2	0.0	34.8	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		896			784			55				
Approach Delay, s/veh		11.8			9.0			34.8				
Approach LOS		B			A			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.9	73.0				79.9		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.5	16.7				12.8		5.4				
Green Ext Time (p_c), s	0.0	5.7				5.2		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	64	36	106	59	107	11	462	108	77	663	2
Future Volume (veh/h)	1	64	36	106	59	107	11	462	108	77	663	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	72	40	119	66	120	12	519	121	87	745	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	94	309	170	258	126	166	26	941	420	131	1177	3
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.02	0.28	0.28	0.08	0.35	0.35
Sat Flow, veh/h	3	1060	582	443	433	569	1668	3328	1485	1668	3405	9
Grp Volume(v), veh/h	113	0	0	305	0	0	12	519	121	87	364	383
Grp Sat Flow(s),veh/h/ln	1645	0	0	1445	0	0	1668	1664	1485	1668	1664	1750
Q Serve(g_s), s	0.0	0.0	0.0	5.1	0.0	0.0	0.3	5.1	2.5	2.0	7.1	7.1
Cycle Q Clear(g_c), s	2.0	0.0	0.0	7.2	0.0	0.0	0.3	5.1	2.5	2.0	7.1	7.1
Prop In Lane	0.01		0.35	0.39		0.39	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	573	0	0	550	0	0	26	941	420	131	575	605
V/C Ratio(X)	0.20	0.00	0.00	0.55	0.00	0.00	0.46	0.55	0.29	0.67	0.63	0.63
Avail Cap(c_a), veh/h	1720	0	0	1530	0	0	408	4156	1854	838	2506	2636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	12.2	0.0	0.0	19.0	11.8	10.9	17.4	10.6	10.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.9	0.0	0.0	12.1	0.5	0.4	5.7	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.0	0.0	0.0	0.2	1.2	0.5	0.8	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.6	0.0	0.0	13.1	0.0	0.0	31.1	12.3	11.3	23.1	11.8	11.8
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		113			305			652			834	
Approach Delay, s/veh		10.6			13.1			12.5			13.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	15.8	5.1	17.9	15.8	7.5	15.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	38.5	9.5	58.5	38.5	19.5	48.5
Max Q Clear Time (g_c+I1), s	4.0	2.3	9.1	9.2	4.0	7.1
Green Ext Time (p_c), s	0.7	0.0	4.3	2.1	0.1	3.6

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	306	253	179	402	97	85	445	76	65	537	271
Future Volume (veh/h)	257	306	253	179	402	97	85	445	76	65	537	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	329	272	192	432	104	91	478	82	70	577	291
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	311	949	423	227	780	348	115	1033	461	88	630	317
Arrive On Green	0.19	0.29	0.29	0.14	0.24	0.24	0.07	0.32	0.32	0.05	0.30	0.30
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	276	329	272	192	432	104	91	478	82	70	448	420
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	15.9	7.7	15.7	11.1	11.2	5.6	5.3	11.3	3.9	4.1	25.6	25.7
Cycle Q Clear(g_c), s	15.9	7.7	15.7	11.1	11.2	5.6	5.3	11.3	3.9	4.1	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	311	949	423	227	780	348	115	1033	461	88	490	458
V/C Ratio(X)	0.89	0.35	0.64	0.85	0.55	0.30	0.79	0.46	0.18	0.80	0.92	0.92
Avail Cap(c_a), veh/h	465	949	423	465	780	348	354	1340	598	198	515	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	26.4	29.2	39.9	31.6	29.5	43.6	25.8	23.3	44.5	32.0	32.0
Incr Delay (d2), s/veh	13.0	1.0	7.3	8.5	2.8	2.2	11.7	0.3	0.2	15.1	20.6	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	2.8	5.8	4.6	4.3	2.0	2.4	4.0	1.2	1.9	11.7	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	27.4	36.5	48.4	34.4	31.7	55.2	26.1	23.5	59.7	52.5	53.8
LnGrp LOS	D	C	D	D	C	C	E	C	C	E	D	D
Approach Vol, veh/h		877			728			651			938	
Approach Delay, s/veh		37.5			37.7			29.8			53.6	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	32.6	11.3	33.5	22.9	27.6	9.7	35.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	13.1	17.7	7.3	27.7	17.9	13.2	6.1	13.3
Green Ext Time (p_c), s	0.4	1.4	0.1	1.4	0.5	2.0	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	0	60	14	0	0	184	663	14	7	863	110
Future Volume (veh/h)	22	0	60	14	0	0	184	663	14	7	863	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	25	0	67	16	0	0	207	745	16	8	970	124
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	39	1141	509	28	1120	500	225	1494	666	16	1078	481
Arrive On Green	0.02	0.00	0.35	0.02	0.00	0.00	0.14	0.46	0.46	0.01	0.33	0.33
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	25	0	67	16	0	0	207	745	16	8	970	124
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.7	0.0	3.5	1.1	0.0	0.0	14.1	18.1	0.7	0.5	32.0	7.0
Cycle Q Clear(g_c), s	1.7	0.0	3.5	1.1	0.0	0.0	14.1	18.1	0.7	0.5	32.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	1141	509	28	1120	500	225	1494	666	16	1078	481
V/C Ratio(X)	0.64	0.00	0.13	0.56	0.00	0.00	0.92	0.50	0.02	0.50	0.90	0.26
Avail Cap(c_a), veh/h	109	1141	509	94	1120	500	225	1494	666	94	1170	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	0.0	24.7	54.7	0.0	0.0	47.8	21.2	16.5	55.3	35.7	27.4
Incr Delay (d2), s/veh	15.9	0.0	0.5	16.2	0.0	0.0	39.3	0.3	0.0	22.2	9.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.2	0.6	0.0	0.0	7.9	6.2	0.2	0.3	13.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	0.0	25.3	71.0	0.0	0.0	87.0	21.5	16.5	77.5	44.9	27.7
LnGrp LOS	E	A	C	E	A	A	F	C	B	E	D	C
Approach Vol, veh/h		92			16			968			1102	
Approach Delay, s/veh		37.5			71.0			35.4			43.2	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	44.0	20.0	41.8	7.2	43.3	5.6	56.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	3.1	5.5	16.1	34.0	3.7	0.0	2.5	20.1
Green Ext Time (p_c), s	0.0	0.2	0.0	3.3	0.0	0.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	802	168
Future Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	802	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1009	23	7	933	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	322	0	171	180	30	84	192	1822	42	15	1470	656
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.12	0.56	0.56	0.01	0.45	0.45
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3270	75	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	505	527	7	933	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1709	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.4	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.4	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	322	0	171	294	0	0	192	911	952	15	1470	656
V/C Ratio(X)	0.07	0.00	0.22	0.01	0.00	0.00	1.71	0.55	0.55	0.46	0.63	0.30
Avail Cap(c_a), veh/h	826	0	735	817	0	0	192	2818	2944	442	6135	2737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	17.1	16.6	0.0	0.0	18.8	6.1	6.1	21.0	9.1	7.5
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.0	339.1	0.5	0.5	19.8	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	19.5	1.0	1.1	0.1	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	0.0	17.7	16.7	0.0	0.0	358.0	6.6	6.6	40.8	9.5	7.7
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1360			1135	
Approach Delay, s/veh		17.4			16.7			91.3			9.4	
Approach LOS		B			B			F			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.5	9.5	23.7	9.5	4.9	28.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	5.0	80.0	21.5	11.5	73.5
Max Q Clear Time (g_c+I1), s	3.0	7.0	11.4	2.0	2.2	10.4
Green Ext Time (p_c), s	0.2	0.0	7.8	0.0	0.0	6.8

Intersection Summary	
HCM 6th Ctrl Delay	53.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	176	229	65	145	230	190	873	73	189	599	52
Future Volume (veh/h)	92	176	229	65	145	230	190	873	73	189	599	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	99	189	246	70	156	247	204	939	78	203	644	56
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
Arrive On Green	0.07	0.35	0.35	0.05	0.33	0.33	0.14	0.32	0.32	0.13	0.31	0.31
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	99	189	246	70	156	247	204	939	78	203	644	56
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.8	20.3	3.3
Cycle Q Clear(g_c), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.8	20.3	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
V/C Ratio(X)	0.82	0.16	0.46	0.80	0.14	0.49	0.89	0.89	0.17	0.91	0.61	0.12
Avail Cap(c_a), veh/h	129	1188	530	118	1123	501	277	1204	537	224	1099	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	27.4	31.0	58.1	28.8	32.9	52.6	40.3	30.7	53.0	36.3	30.5
Incr Delay (d2), s/veh	31.2	0.3	2.9	23.1	0.3	3.4	24.5	7.6	0.2	36.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.9	5.9	2.7	1.6	6.1	7.6	14.0	1.6	8.2	8.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.0	27.7	33.9	81.3	29.1	36.3	77.2	47.9	30.8	89.1	37.3	30.6
LnGrp LOS	F	C	C	F	C	D	E	D	C	F	D	C
Approach Vol, veh/h		534			473			1221			903	
Approach Delay, s/veh		41.7			40.6			51.7			48.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	48.4	21.4	43.2	13.4	46.0	21.0	43.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	7.1	17.8	16.8	22.3	9.2	18.3	16.8	35.0
Green Ext Time (p_c), s	0.0	1.8	0.2	3.7	0.0	1.6	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

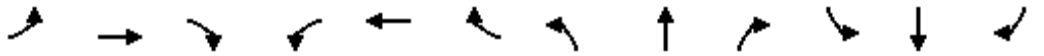
Intersection	
Int Delay, s/veh	10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	5	2	0	4	17	157	1	0	121	56
Future Vol, veh/h	57	0	5	2	0	4	17	157	1	0	121	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	0	5	2	0	4	18	167	1	0	129	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	5	0	0	226	133	3	215	133	2
Stage 1	-	-	-	-	-	-	125	125	-	6	6	-
Stage 2	-	-	-	-	-	-	101	8	-	209	127	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1592	-	-	1590	-	-	721	750	1069	733	750	1071
Stage 1	-	-	-	-	-	-	869	785	-	1006	883	-
Stage 2	-	-	-	-	-	-	895	881	-	784	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1590	-	-	570	721	1069	584	721	1071
Mov Cap-2 Maneuver	-	-	-	-	-	-	570	721	-	584	721	-
Stage 1	-	-	-	-	-	-	836	755	-	968	882	-
Stage 2	-	-	-	-	-	-	721	880	-	587	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	2.4	11.9	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	704	1592	-	-	1590	-	-	804
HCM Lane V/C Ratio	0.264	0.038	-	-	0.001	-	-	0.234
HCM Control Delay (s)	11.9	7.4	0	-	7.3	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0	-	-	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	345	33	27	589	98	13	65	7	65	57	31
Future Volume (veh/h)	65	345	33	27	589	98	13	65	7	65	57	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	69	367	35	29	627	104	14	69	7	69	61	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	123	1299	580	61	1175	524	155	243	23	250	118	53
Arrive On Green	0.07	0.38	0.38	0.04	0.34	0.34	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	153	1449	135	545	703	317
Grp Volume(v), veh/h	69	367	35	29	627	104	90	0	0	163	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1738	0	0	1564	0	0
Q Serve(g_s), s	1.2	2.4	0.5	0.5	4.7	1.5	0.0	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear(g_c), s	1.2	2.4	0.5	0.5	4.7	1.5	1.4	0.0	0.0	3.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.08	0.42		0.20
Lane Grp Cap(c), veh/h	123	1299	580	61	1175	524	420	0	0	421	0	0
V/C Ratio(X)	0.56	0.28	0.06	0.47	0.53	0.20	0.21	0.00	0.00	0.39	0.00	0.00
Avail Cap(c_a), veh/h	1447	4224	1884	1447	4224	1884	2221	0	0	2029	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.4	7.0	6.4	15.2	8.5	7.5	11.7	0.0	0.0	12.3	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.1	0.0	5.6	0.4	0.2	0.3	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.2	0.8	0.2	0.5	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	7.1	6.4	20.8	8.9	7.7	12.0	0.0	0.0	12.9	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		471			760			90			163	
Approach Delay, s/veh		8.7			9.2			12.0			12.9	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	16.7		9.9	6.8	15.5		9.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.5	4.4		5.0	3.2	6.7		3.4				
Green Ext Time (p_c), s	0.0	2.2		1.0	0.1	4.3		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		9.6	
HCM 6th LOS		A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	299	50	136	384	155	34	135	64	90	72	43
Future Volume (veh/h)	79	299	50	136	384	155	34	135	64	90	72	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	374	62	170	480	194	42	169	80	112	90	54
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	229	852	140	266	1065	475	107	276	119	215	157	77
Arrive On Green	0.13	0.29	0.29	0.16	0.31	0.31	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1711	2934	482	1711	3413	1522	151	1072	464	504	609	297
Grp Volume(v), veh/h	99	216	220	170	480	194	291	0	0	256	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1709	1711	1706	1522	1687	0	0	1410	0	0
Q Serve(g_s), s	3.2	6.2	6.4	5.7	6.8	6.1	0.0	0.0	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	3.2	6.2	6.4	5.7	6.8	6.1	9.1	0.0	0.0	9.7	0.0	0.0
Prop In Lane	1.00		0.28	1.00		1.00	0.14		0.27	0.44		0.21
Lane Grp Cap(c), veh/h	229	495	496	266	1065	475	502	0	0	448	0	0
V/C Ratio(X)	0.43	0.44	0.44	0.64	0.45	0.41	0.58	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	536	929	930	818	2420	1079	1146	0	0	994	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.1	17.5	17.5	24.0	16.7	16.4	20.1	0.0	0.0	20.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	2.2	2.2	2.5	1.1	2.0	3.8	0.0	0.0	4.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.3	2.3	2.1	2.3	2.0	3.7	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	19.7	19.8	26.6	17.8	18.5	23.9	0.0	0.0	24.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		535			844			291			256	
Approach Delay, s/veh		20.8			19.7			23.9			24.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	24.6		22.6	12.1	25.9		22.6				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	11.7	8.4		11.1	5.2	8.8		11.7				
Green Ext Time (p_c), s	0.4	5.7		4.4	0.2	10.1		3.9				

Intersection Summary		
HCM 6th Ctrl Delay		21.3
HCM 6th LOS		C

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	6	0	5	0
Future Vol, veh/h	0	0	6	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	0	11	0	9	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	11	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1438	-	-	-	939	991
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1438	-	-	-	939	991
Mov Cap-2 Maneuver	-	-	-	-	939	-
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1438	-	-	-	939
HCM Lane V/C Ratio	-	-	-	-	0.01
HCM Control Delay (s)	0	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	362	6	6	695	1	3	0	3	1	0	0
Future Vol, veh/h	0	362	6	6	695	1	3	0	3	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	402	7	7	772	1	3	0	3	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	773	0	0	409	0	0	806	1193	205	988	1196	387
Stage 1	-	-	-	-	-	-	406	406	-	787	787	-
Stage 2	-	-	-	-	-	-	400	787	-	201	409	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	794	-	-	1098	-	-	261	176	780	192	175	592
Stage 1	-	-	-	-	-	-	574	579	-	336	385	-
Stage 2	-	-	-	-	-	-	579	385	-	762	577	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	794	-	-	1098	-	-	260	175	780	190	174	592
Mov Cap-2 Maneuver	-	-	-	-	-	-	260	175	-	190	174	-
Stage 1	-	-	-	-	-	-	574	579	-	336	383	-
Stage 2	-	-	-	-	-	-	575	383	-	759	577	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.4	24.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	794	-	-	1098	-	-	190
HCM Lane V/C Ratio	0.017	-	-	-	0.006	-	-	0.006
HCM Control Delay (s)	14.4	0	-	-	8.3	-	-	24.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	75	33	31	103	14	19	33	17	10	62	8
Future Vol, veh/h	5	75	33	31	103	14	19	33	17	10	62	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	104	46	43	143	19	26	46	24	14	86	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9.5	8.8	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	4%	21%	12%
Vol Thru, %	48%	66%	70%	78%
Vol Right, %	25%	29%	9%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	113	148	80
LT Vol	19	5	31	10
Through Vol	33	75	103	62
RT Vol	17	33	14	8
Lane Flow Rate	96	157	206	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.132	0.202	0.27	0.154
Departure Headway (Hd)	4.946	4.633	4.722	4.981
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	772	758	717
Service Time	2.999	2.68	2.766	3.033
HCM Lane V/C Ratio	0.133	0.203	0.272	0.155
HCM Control Delay	8.8	8.9	9.5	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.8	1.1	0.5

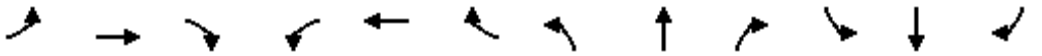
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	0	0	0	0	0	0	89	0	0	163	0
Future Vol, veh/h	3	0	0	0	0	0	0	89	0	0	163	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	5	0	0	0	0	0	0	137	0	0	251	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	388	388	251	388	388	137	251	0	0	137	0	0
Stage 1	251	251	-	137	137	-	-	-	-	-	-	-
Stage 2	137	137	-	251	251	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	560	537	773	560	537	896	1280	-	-	1411	-	-
Stage 1	740	688	-	852	772	-	-	-	-	-	-	-
Stage 2	852	772	-	740	688	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	560	537	773	560	537	896	1280	-	-	1411	-	-
Mov Cap-2 Maneuver	560	537	-	560	537	-	-	-	-	-	-	-
Stage 1	740	688	-	852	772	-	-	-	-	-	-	-
Stage 2	852	772	-	740	688	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	0	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	560	-	1411	-	-
HCM Lane V/C Ratio	-	-	-	0.008	-	-	-	-
HCM Control Delay (s)	0	-	-	11.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	301	120	120	524	54	174	103	68	31	161	39
Future Volume (veh/h)	25	301	120	120	524	54	174	103	68	31	161	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	28	334	133	133	582	60	193	114	76	34	179	43
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	57	711	317	174	944	421	253	912	407	67	285	241
Arrive On Green	0.03	0.20	0.20	0.10	0.27	0.27	0.15	0.26	0.26	0.04	0.16	0.16
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	1826	1547
Grp Volume(v), veh/h	28	334	133	133	582	60	193	114	76	34	179	43
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1826	1547
Q Serve(g_s), s	0.7	3.9	3.4	3.4	6.7	1.3	4.9	1.1	1.7	0.9	4.2	1.1
Cycle Q Clear(g_c), s	0.7	3.9	3.4	3.4	6.7	1.3	4.9	1.1	1.7	0.9	4.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	57	711	317	174	944	421	253	912	407	67	285	241
V/C Ratio(X)	0.49	0.47	0.42	0.76	0.62	0.14	0.76	0.12	0.19	0.51	0.63	0.18
Avail Cap(c_a), veh/h	590	2923	1304	590	2923	1304	742	2164	965	742	1139	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	16.0	15.8	20.0	14.5	12.6	18.8	12.8	13.1	21.6	18.0	16.7
Incr Delay (d2), s/veh	6.4	0.5	0.9	6.8	0.7	0.2	4.8	0.1	0.2	5.9	2.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	1.0	1.4	1.9	0.4	1.9	0.3	0.5	0.4	1.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	16.5	16.7	26.9	15.2	12.7	23.5	12.9	13.3	27.5	20.3	17.1
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		495			775			383			256	
Approach Delay, s/veh		17.2			17.0			18.3			20.7	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	13.9	11.1	11.6	6.0	16.9	6.3	16.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.4	5.9	6.9	6.2	2.7	8.7	2.9	3.7
Green Ext Time (p_c), s	0.2	2.3	0.4	1.0	0.0	3.7	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	17.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	3	31	143	24	70	64	270	76	67	366	30
Future Vol, veh/h	8	3	31	143	24	70	64	270	76	67	366	30
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	10	4	40	183	31	90	82	346	97	86	469	38
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12.9	16.6	16.5	19.7
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	19%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	7%	0%	26%	0%	100%	80%
Vol Right, %	0%	0%	46%	74%	0%	74%	0%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	180	166	42	143	94	67	244	152
LT Vol	64	0	0	8	143	0	67	0	0
Through Vol	0	180	90	3	0	24	0	244	122
RT Vol	0	0	76	31	0	70	0	0	30
Lane Flow Rate	82	231	213	54	183	121	86	313	195
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.189	0.5	0.441	0.131	0.45	0.261	0.195	0.664	0.406
Departure Headway (Hd)	8.308	7.795	7.466	8.789	8.83	7.797	8.152	7.64	7.498
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	462	481	406	407	459	440	472	479
Service Time	6.073	5.56	5.231	6.582	6.603	5.569	5.915	5.403	5.261
HCM Lane V/C Ratio	0.19	0.5	0.443	0.133	0.45	0.264	0.195	0.663	0.407
HCM Control Delay	13	18.2	16	12.9	18.7	13.3	12.9	24.3	15.3
HCM Lane LOS	B	C	C	B	C	B	B	C	C
HCM 95th-tile Q	0.7	2.7	2.2	0.4	2.3	1	0.7	4.8	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	4	52	219	31	7	187	353	65	3	411	116
Future Volume (veh/h)	29	4	52	219	31	7	187	353	65	3	411	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	35	5	63	264	37	8	225	425	78	4	495	140
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	170	144	327	443	376	282	1345	600	9	800	357
Arrive On Green	0.04	0.09	0.09	0.19	0.24	0.24	0.16	0.38	0.38	0.01	0.23	0.23
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	35	5	63	264	37	8	225	425	78	4	495	140
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	1.1	0.1	2.1	7.8	0.8	0.2	6.7	4.6	1.8	0.1	6.9	4.1
Cycle Q Clear(g_c), s	1.1	0.1	2.1	7.8	0.8	0.2	6.7	4.6	1.8	0.1	6.9	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	170	144	327	443	376	282	1345	600	9	800	357
V/C Ratio(X)	0.53	0.03	0.44	0.81	0.08	0.02	0.80	0.32	0.13	0.42	0.62	0.39
Avail Cap(c_a), veh/h	203	1173	994	572	1560	1322	507	2880	1284	161	2190	977
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	22.4	23.3	21.2	16.0	15.7	21.9	11.7	10.8	26.9	18.8	17.7
Incr Delay (d2), s/veh	6.4	0.1	2.1	4.7	0.1	0.0	5.1	0.1	0.1	27.3	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.8	3.3	0.3	0.1	2.8	1.5	0.5	0.1	2.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	22.5	25.4	25.9	16.0	15.8	27.0	11.8	10.9	54.2	19.6	18.4
LnGrp LOS	C	C	C	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		103			309			728			639	
Approach Delay, s/veh		27.5			24.5			16.4			19.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	9.5	13.2	16.9	6.6	17.6	4.8	25.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	9.8	4.1	8.7	8.9	3.1	2.8	2.1	6.6
Green Ext Time (p_c), s	0.5	0.2	0.3	3.5	0.0	0.2	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	210	184	84	382	102	223	515	103	75	527	132
Future Volume (veh/h)	51	210	184	84	382	102	223	515	103	75	527	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	61	253	222	101	460	123	269	620	124	90	635	159
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	78	637	538	126	1333	595	297	1167	520	114	801	357
Arrive On Green	0.04	0.36	0.36	0.07	0.38	0.38	0.17	0.34	0.34	0.07	0.23	0.23
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	61	246	229	101	460	123	269	620	124	90	635	159
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.7	11.3	11.8	6.1	10.0	5.7	16.2	15.4	6.2	5.4	18.3	9.4
Cycle Q Clear(g_c), s	3.7	11.3	11.8	6.1	10.0	5.7	16.2	15.4	6.2	5.4	18.3	9.4
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	619	555	126	1333	595	297	1167	520	114	801	357
V/C Ratio(X)	0.78	0.40	0.41	0.80	0.34	0.21	0.91	0.53	0.24	0.79	0.79	0.45
Avail Cap(c_a), veh/h	149	619	555	139	1333	595	302	1463	653	173	1206	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	25.6	25.8	48.6	23.3	21.9	43.3	28.5	25.5	49.0	38.5	35.1
Incr Delay (d2), s/veh	15.4	1.9	2.3	26.0	0.7	0.8	28.7	0.4	0.2	13.1	2.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.6	4.4	3.4	3.9	2.1	9.1	6.2	2.2	2.7	7.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	27.5	28.1	74.6	24.0	22.7	72.0	28.9	25.7	62.1	40.7	36.0
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		536			684			1013			884	
Approach Delay, s/veh		32.1			31.2			40.0			42.0	
Approach LOS		C			C			D			D	

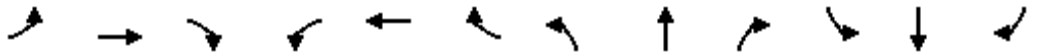
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	42.5	22.7	29.1	9.3	45.4	11.5	40.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	8.1	13.8	18.2	20.3	5.7	12.0	7.4	17.4
Green Ext Time (p_c), s	0.0	2.5	0.0	4.2	0.0	3.0	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	79	64	786	39	30	494
Future Volume (veh/h)	79	64	786	39	30	494
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	100	81	995	49	38	625
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1655	81	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3428	164	1725	3532
Grp Volume(v), veh/h	100	81	513	531	38	625
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1781	1725	1721
Q Serve(g_s), s	5.8	5.2	25.7	25.7	2.2	7.9
Cycle Q Clear(g_c), s	5.8	5.2	25.7	25.7	2.2	7.9
Prop In Lane	1.00	1.00		0.09	1.00	
Lane Grp Cap(c), veh/h	381	339	853	883	295	2423
V/C Ratio(X)	0.26	0.24	0.60	0.60	0.13	0.26
Avail Cap(c_a), veh/h	381	339	853	883	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	38.5	21.7	21.7	42.2	6.4
Incr Delay (d2), s/veh	1.7	1.7	1.2	1.1	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.0	10.4	10.8	1.0	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.3	40.1	22.9	22.9	43.1	6.7
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	181		1044			663
Approach Delay, s/veh	40.2		22.9			8.8
Approach LOS	D		C			A

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	89.0	31.0	25.0	64.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	84.5	26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s	9.9	7.8	4.2	27.7
Green Ext Time (p_c), s	5.1	0.5	0.0	8.3

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	405	15	94	748	53	45	13	88	55	24	14
Future Volume (veh/h)	7	405	15	94	748	53	45	13	88	55	24	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	460	17	107	850	58	51	14	100	60	26	15
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	1320	49	141	1214	83	173	30	212	80	108	62
Arrive On Green	0.10	0.38	0.38	0.08	0.36	0.36	0.10	0.15	0.15	0.04	0.10	0.10
Sat Flow, veh/h	1781	3495	129	1781	3375	230	1781	198	1417	1781	1113	642
Grp Volume(v), veh/h	8	233	244	107	447	461	51	0	114	60	0	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1847	1781	1777	1829	1781	0	1615	1781	0	1755
Q Serve(g_s), s	0.2	4.9	4.9	3.0	11.1	11.1	1.4	0.0	3.3	1.7	0.0	1.1
Cycle Q Clear(g_c), s	0.2	4.9	4.9	3.0	11.1	11.1	1.4	0.0	3.3	1.7	0.0	1.1
Prop In Lane	1.00		0.07	1.00		0.13	1.00		0.88	1.00		0.37
Lane Grp Cap(c), veh/h	173	671	697	141	639	658	173	0	241	80	0	170
V/C Ratio(X)	0.05	0.35	0.35	0.76	0.70	0.70	0.30	0.00	0.47	0.75	0.00	0.24
Avail Cap(c_a), veh/h	626	1672	1739	570	1617	1665	640	0	831	363	0	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	11.5	11.5	23.3	14.1	14.1	21.6	0.0	20.1	24.3	0.0	21.5
Incr Delay (d2), s/veh	0.1	0.3	0.3	8.2	1.4	1.4	0.9	0.0	1.4	13.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	1.4	1.4	3.3	3.4	0.6	0.0	1.2	1.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	11.8	11.8	31.4	15.5	15.5	22.6	0.0	21.5	37.6	0.0	22.2
LnGrp LOS	C	B	B	C	B	B	C	A	C	D	A	C
Approach Vol, veh/h		485			1015			165			101	
Approach Delay, s/veh		12.0			17.2			21.8			31.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	24.0	9.5	9.5	9.5	23.0	6.8	12.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	48.5	18.5	18.5	18.1	46.9	10.5	26.5
Max Q Clear Time (g_c+I1), s	5.0	6.9	3.4	3.1	2.2	13.1	3.7	5.3
Green Ext Time (p_c), s	0.2	2.5	0.1	0.1	0.0	5.4	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	105	4	69	185	10	3	20	59	29	15	18
Future Vol, veh/h	12	105	4	69	185	10	3	20	59	29	15	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	16	142	5	93	250	14	4	27	80	39	20	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	264	0	0	147	0	0	642	627	145	673	622	257
Stage 1	-	-	-	-	-	-	177	177	-	443	443	-
Stage 2	-	-	-	-	-	-	465	450	-	230	179	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1306	-	-	1441	-	-	388	401	905	370	404	784
Stage 1	-	-	-	-	-	-	827	755	-	596	577	-
Stage 2	-	-	-	-	-	-	580	573	-	775	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1306	-	-	1441	-	-	340	371	905	300	373	784
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	371	-	300	373	-
Stage 1	-	-	-	-	-	-	817	746	-	589	539	-
Stage 2	-	-	-	-	-	-	506	536	-	673	744	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2	11.7	16.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	340	663	1306	-	-	1441	-	-	388
HCM Lane V/C Ratio	0.012	0.161	0.012	-	-	0.065	-	-	0.216
HCM Control Delay (s)	15.7	11.5	7.8	-	-	7.7	-	-	16.8
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.6	0	-	-	0.2	-	-	0.8

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	71	21	61	95	1	34	1	37	0	0	0
Future Vol, veh/h	0	71	21	61	95	1	34	1	37	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	85	25	73	113	1	40	1	44	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	114	0	0	110	0	0	358	358	98	380	370	114
Stage 1	-	-	-	-	-	-	98	98	-	260	260	-
Stage 2	-	-	-	-	-	-	260	260	-	120	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1475	-	-	1480	-	-	597	568	958	578	560	939
Stage 1	-	-	-	-	-	-	908	814	-	745	693	-
Stage 2	-	-	-	-	-	-	745	693	-	884	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1475	-	-	1480	-	-	573	538	958	528	530	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	538	-	528	530	-
Stage 1	-	-	-	-	-	-	908	814	-	745	656	-
Stage 2	-	-	-	-	-	-	706	656	-	842	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.9	10.7	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	721	1475	-	-	1480	-	-	-
HCM Lane V/C Ratio	0.119	-	-	-	0.049	-	-	-
HCM Control Delay (s)	10.7	0	-	-	7.6	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	-

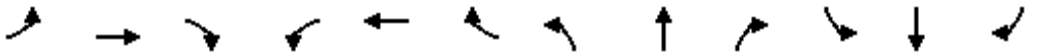
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	65	0	0	84	0
Future Vol, veh/h	0	0	0	0	0	0	0	65	0	0	84	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0	0	81	0	0	105	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	186	186	105	186	186	81	105	0	0	81	0	0
Stage 1	105	105	-	81	81	-	-	-	-	-	-	-
Stage 2	81	81	-	105	105	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	772	707	947	772	707	976	1480	-	-	1510	-	-
Stage 1	898	806	-	925	826	-	-	-	-	-	-	-
Stage 2	925	826	-	898	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	772	707	947	772	707	976	1480	-	-	1510	-	-
Mov Cap-2 Maneuver	772	707	-	772	707	-	-	-	-	-	-	-
Stage 1	898	806	-	925	826	-	-	-	-	-	-	-
Stage 2	925	826	-	898	806	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	-	-	1510	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	327	150	195	596	240	170	314	155	251	404	140
Future Volume (veh/h)	150	327	150	195	596	240	170	314	155	251	404	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	190	414	190	247	754	304	215	397	196	318	511	177
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
Arrive On Green	0.11	0.34	0.34	0.15	0.38	0.38	0.06	0.24	0.24	0.11	0.29	0.29
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	190	414	190	247	754	304	215	397	196	318	511	177
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	12.0	21.2	10.1	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	10.1
Cycle Q Clear(g_c), s	12.0	21.2	10.1	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	10.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
V/C Ratio(X)	1.01	0.65	0.35	0.95	1.06	0.50	1.90	0.89	0.52	1.57	0.50	0.39
Avail Cap(c_a), veh/h	189	638	541	260	713	604	113	562	476	203	1247	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	31.5	27.9	47.9	35.0	26.8	53.0	41.5	37.3	50.1	33.3	32.1
Incr Delay (d2), s/veh	66.8	5.0	1.8	42.3	50.1	3.0	434.4	13.3	1.1	276.9	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	9.8	4.0	9.6	27.7	6.5	16.8	11.9	4.7	21.2	5.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.4	36.6	29.7	90.2	85.1	29.8	487.3	54.8	38.4	327.0	33.7	32.6
LnGrp LOS	F	D	C	F	F	C	F	D	D	F	C	C
Approach Vol, veh/h		794			1305			808			1006	
Approach Delay, s/veh		54.3			73.2			165.9			126.2	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	37.3	16.5	47.6	17.4	31.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	17.6	23.2	9.2	15.5	14.0	45.1	14.9	25.2
Green Ext Time (p_c), s	0.0	2.4	0.0	3.7	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	102.1
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	115	265	253	171	55	140	398	120	48	630	77
Future Volume (veh/h)	68	115	265	253	171	55	140	398	120	48	630	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	134	308	294	199	64	163	463	140	56	733	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	157	360	323	590	190	191	586	497	72	786	96
Arrive On Green	0.06	0.31	0.31	0.18	0.44	0.44	0.11	0.31	0.31	0.04	0.25	0.25
Sat Flow, veh/h	1781	504	1158	1781	1356	436	1781	1870	1585	1781	3186	391
Grp Volume(v), veh/h	79	0	442	294	0	263	163	463	140	56	409	414
Grp Sat Flow(s),veh/h/ln	1781	0	1662	1781	0	1792	1781	1870	1585	1781	1777	1800
Q Serve(g_s), s	5.1	0.0	29.1	18.9	0.0	11.3	10.5	26.3	7.8	3.6	26.2	26.2
Cycle Q Clear(g_c), s	5.1	0.0	29.1	18.9	0.0	11.3	10.5	26.3	7.8	3.6	26.2	26.2
Prop In Lane	1.00		0.70	1.00		0.24	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	101	0	516	323	0	780	191	586	497	72	438	444
V/C Ratio(X)	0.78	0.00	0.86	0.91	0.00	0.34	0.85	0.79	0.28	0.78	0.93	0.93
Avail Cap(c_a), veh/h	157	0	516	361	0	780	217	586	497	87	438	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	0.0	37.7	46.8	0.0	21.8	51.1	36.5	30.1	55.4	42.9	43.0
Incr Delay (d2), s/veh	12.6	0.0	16.5	25.0	0.0	1.2	24.5	10.4	1.4	29.6	29.0	28.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	13.7	10.3	0.0	4.8	5.8	13.2	3.1	2.2	14.6	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	0.0	54.2	71.8	0.0	22.9	75.6	46.9	31.5	85.0	72.0	71.9
LnGrp LOS	E	A	D	E	A	C	E	D	C	F	E	E
Approach Vol, veh/h		521			557			766			879	
Approach Delay, s/veh		56.1			48.7			50.2			72.8	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	40.7	17.0	33.2	11.1	55.2	9.2	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	10.9	31.1	12.5	28.2	7.1	13.3	5.6	28.3
Green Ext Time (p_c), s	0.2	1.2	0.1	0.0	0.0	1.5	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	58.3
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	247	45	168	282	143	227	504	162	329	786	101
Future Volume (veh/h)	51	247	45	168	282	143	227	504	162	329	786	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	287	52	195	328	166	264	586	188	383	914	117
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	992	443	221	1280	571	292	815	364	413	1057	472
Arrive On Green	0.04	0.28	0.28	0.12	0.36	0.36	0.16	0.23	0.23	0.23	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	59	287	52	195	328	166	264	586	188	383	914	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.3	8.4	3.2	14.3	8.6	9.9	19.3	20.2	13.7	27.9	32.2	7.4
Cycle Q Clear(g_c), s	4.3	8.4	3.2	14.3	8.6	9.9	19.3	20.2	13.7	27.9	32.2	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	992	443	221	1280	571	292	815	364	413	1057	472
V/C Ratio(X)	0.78	0.29	0.12	0.88	0.26	0.29	0.91	0.72	0.52	0.93	0.86	0.25
Avail Cap(c_a), veh/h	172	992	443	262	1280	571	375	965	431	531	1277	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.8	37.4	35.6	57.1	29.9	30.3	54.4	47.1	44.6	49.8	44.0	35.3
Incr Delay (d2), s/veh	15.3	0.7	0.5	25.1	0.5	1.3	21.2	2.1	1.1	19.7	5.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.6	1.3	7.7	3.6	3.9	10.1	8.9	5.4	14.3	14.5	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.1	38.2	36.1	82.3	30.4	31.6	75.6	49.2	45.8	69.5	49.6	35.6
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	D	D
Approach Vol, veh/h		398			689			1038			1414	
Approach Delay, s/veh		43.8			45.3			55.3			53.8	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	41.5	26.2	43.9	10.2	52.2	35.2	34.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	37.0	27.9	47.6	12.8	43.7	39.5	36.0
Max Q Clear Time (g_c+I1), s	16.3	10.4	21.3	34.2	6.3	11.9	29.9	22.2
Green Ext Time (p_c), s	0.1	1.7	0.4	5.2	0.0	2.4	0.8	3.6

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

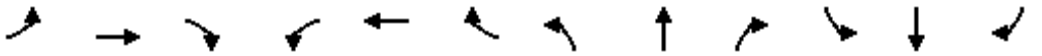
Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	5	79	10	3	139
Future Vol, veh/h	24	5	79	10	3	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	37	8	122	15	5	214

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	354	130	0	0	137	0
Stage 1	130	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	632	904	-	-	1411	-
Stage 1	881	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	629	904	-	-	1411	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	796	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	664	1411	-
HCM Lane V/C Ratio	-	-	0.067	0.003	-
HCM Control Delay (s)	-	-	10.8	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	813	4	61	762	0	14	0	36	0	0	0
Future Volume (veh/h)	40	813	4	61	762	0	14	0	36	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	884	4	66	828	0	15	0	39			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	435	2035	9	84	2299	0	89	0	231			
Arrive On Green	0.61	0.61	0.61	0.05	0.70	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	610	3340	15	1640	3358	0	418	0	1087			
Grp Volume(v), veh/h	43	433	455	66	828	0	54	0	0			
Grp Sat Flow(s),veh/h/ln	610	1636	1719	1640	1636	0	1506	0	0			
Q Serve(g_s), s	3.2	14.9	14.9	4.2	10.7	0.0	3.1	0.0	0.0			
Cycle Q Clear(g_c), s	4.0	14.9	14.9	4.2	10.7	0.0	3.1	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.28		0.72			
Lane Grp Cap(c), veh/h	435	996	1047	84	2299	0	320	0	0			
V/C Ratio(X)	0.10	0.43	0.43	0.79	0.36	0.00	0.17	0.00	0.00			
Avail Cap(c_a), veh/h	435	996	1047	302	2735	0	320	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.0	11.0	11.0	49.7	6.3	0.0	34.1	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.4	1.3	15.0	0.1	0.0	1.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.8	5.0	2.0	2.7	0.0	1.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.5	12.4	12.3	64.7	6.4	0.0	35.2	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		931			894			54				
Approach Delay, s/veh		12.2			10.7			35.2				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.9	69.0				78.9		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	6.2	16.9				12.7		5.1				
Green Ext Time (p_c), s	0.1	6.0				5.8		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			12.1									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	62	17	88	60	63	43	756	102	109	512	0
Future Volume (veh/h)	3	62	17	88	60	63	43	756	102	109	512	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	3	70	19	100	68	72	49	859	116	124	582	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	86	296	78	224	120	99	88	1344	599	162	1493	0
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.05	0.39	0.39	0.09	0.43	0.00
Sat Flow, veh/h	17	1362	359	514	550	456	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	92	0	0	240	0	0	49	859	116	124	582	0
Grp Sat Flow(s),veh/h/ln	1738	0	0	1521	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	4.5	0.0	0.0	1.3	9.2	2.3	3.2	5.2	0.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	6.5	0.0	0.0	1.3	9.2	2.3	3.2	5.2	0.0
Prop In Lane	0.03		0.21	0.42		0.30	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	460	0	0	443	0	0	88	1344	599	162	1493	0
V/C Ratio(X)	0.20	0.00	0.00	0.54	0.00	0.00	0.56	0.64	0.19	0.76	0.39	0.00
Avail Cap(c_a), veh/h	1093	0	0	984	0	0	629	4676	2085	705	4828	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.6	0.0	0.0	16.3	0.0	0.0	21.0	11.2	9.1	20.0	8.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.0	0.0	0.0	5.5	0.5	0.2	7.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	2.1	0.0	0.0	0.5	2.2	0.5	1.3	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	0.0	17.3	0.0	0.0	26.5	11.7	9.3	27.3	8.9	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	A	C	A	A
Approach Vol, veh/h		92			240			1024			706	
Approach Delay, s/veh		14.9			17.3			12.1			12.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	14.3	6.8	24.1	14.3	8.8	22.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	16.5	63.5	26.5	18.5	61.5
Max Q Clear Time (g_c+I1), s	4.0	3.3	7.2	8.5	5.2	11.2
Green Ext Time (p_c), s	0.4	0.1	3.7	1.3	0.2	6.5

Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	445	121	117	354	128	210	695	172	106	450	270
Future Volume (veh/h)	285	445	121	117	354	128	210	695	172	106	450	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	297	464	126	122	369	133	219	724	179	110	469	281
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	329	1074	479	151	719	321	249	1097	489	135	523	312
Arrive On Green	0.20	0.33	0.33	0.09	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	297	464	126	122	369	133	219	724	179	110	389	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	18.6	11.7	6.7	7.7	10.4	8.2	13.7	19.9	9.8	6.9	24.1	24.3
Cycle Q Clear(g_c), s	18.6	11.7	6.7	7.7	10.4	8.2	13.7	19.9	9.8	6.9	24.1	24.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	329	1074	479	151	719	321	249	1097	489	135	434	401
V/C Ratio(X)	0.90	0.43	0.26	0.81	0.51	0.41	0.88	0.66	0.37	0.82	0.90	0.90
Avail Cap(c_a), veh/h	429	1074	479	429	719	321	326	1235	551	182	475	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	28.1	26.4	47.3	36.5	35.7	44.1	30.3	26.9	47.9	37.7	37.7
Incr Delay (d2), s/veh	18.6	1.3	1.3	9.9	2.6	3.9	18.9	1.1	0.5	18.3	18.3	20.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	4.5	2.4	3.4	4.2	3.1	6.6	7.4	3.3	3.4	11.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	29.3	27.7	57.2	39.1	39.6	63.0	31.4	27.4	66.2	55.9	58.1
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		887			624			1122			860	
Approach Delay, s/veh		39.4			42.8			36.9			58.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	39.0	20.5	32.4	25.6	27.6	13.1	39.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	9.7	13.7	15.7	26.3	20.6	12.4	8.9	21.9
Green Ext Time (p_c), s	0.2	2.1	0.3	1.6	0.5	1.8	0.1	4.6

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	2	161	39	0	13	95	902	28	5	724	50
Future Volume (veh/h)	108	2	161	39	0	13	95	902	28	5	724	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	110	2	164	40	0	13	97	920	29	5	739	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	125	1420	633	55	1281	571	121	1122	500	11	901	402
Arrive On Green	0.08	0.43	0.43	0.03	0.00	0.39	0.07	0.34	0.34	0.01	0.28	0.28
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	110	2	164	40	0	13	97	920	29	5	739	51
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.5	0.0	7.0	2.4	0.0	0.5	5.7	25.3	1.3	0.3	20.8	2.6
Cycle Q Clear(g_c), s	6.5	0.0	7.0	2.4	0.0	0.5	5.7	25.3	1.3	0.3	20.8	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	1420	633	55	1281	571	121	1122	500	11	901	402
V/C Ratio(X)	0.88	0.00	0.26	0.72	0.00	0.02	0.80	0.82	0.06	0.47	0.82	0.13
Avail Cap(c_a), veh/h	125	1420	633	108	1281	571	258	1647	734	108	1347	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	15.8	17.8	47.1	0.0	18.4	44.8	29.5	21.7	48.7	33.4	26.8
Incr Delay (d2), s/veh	46.1	0.0	1.0	16.1	0.0	0.1	11.3	2.2	0.0	28.9	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	2.3	1.2	0.0	0.2	2.6	9.3	0.4	0.2	7.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.1	15.8	18.7	63.2	0.0	18.5	56.1	31.7	21.7	77.6	35.9	26.9
LnGrp LOS	F	B	B	E	A	B	E	C	C	E	D	C
Approach Vol, veh/h		276			53			1046			795	
Approach Delay, s/veh		47.5			52.2			33.7			35.6	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	47.2	11.8	31.6	12.0	43.0	5.1	38.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.4	9.0	7.7	22.8	8.5	2.5	2.3	27.3
Green Ext Time (p_c), s	0.0	0.6	0.1	4.3	0.0	0.0	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	876	3	1	987	32
Future Volume (veh/h)	149	0	252	7	0	3	61	876	3	1	987	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1081	4	1	1219	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	426	0	377	136	15	26	94	1839	7	3	1616	721
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.06	0.54	0.54	0.00	0.49	0.49
Sat Flow, veh/h	1323	0	1485	172	61	103	1668	3401	13	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	529	556	1	1219	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	335	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	13.1	0.1	0.0	0.0	2.9	14.2	14.2	0.0	19.7	0.9
Cycle Q Clear(g_c), s	8.7	0.0	13.1	13.2	0.0	0.0	2.9	14.2	14.2	0.0	19.7	0.9
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	426	0	377	177	0	0	94	900	946	3	1616	721
V/C Ratio(X)	0.43	0.00	0.82	0.07	0.00	0.00	0.80	0.59	0.59	0.40	0.75	0.06
Avail Cap(c_a), veh/h	559	0	527	289	0	0	126	1821	1915	264	3919	1748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	23.3	19.7	0.0	0.0	30.9	10.2	10.2	33.0	13.8	9.0
Incr Delay (d2), s/veh	0.7	0.0	7.3	0.2	0.0	0.0	22.0	0.6	0.6	78.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.0	0.2	0.0	0.0	1.6	3.6	3.8	0.1	5.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	0.0	30.6	19.9	0.0	0.0	52.8	10.9	10.8	111.8	14.6	9.0
LnGrp LOS	C	A	C	B	A	A	D	B	B	F	B	A
Approach Vol, veh/h		495			13			1160			1260	
Approach Delay, s/veh		27.5			19.9			13.6			14.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	21.3	8.2	36.7	21.3	4.6	40.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	5.0	78.0	23.5	10.5	72.5
Max Q Clear Time (g_c+I1), s	15.1	4.9	21.7	15.2	2.0	16.2
Green Ext Time (p_c), s	1.8	0.0	10.5	0.0	0.0	7.3

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	243	245	86	164	193	169	700	65	262	838	99
Future Volume (veh/h)	101	243	245	86	164	193	169	700	65	262	838	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	107	259	261	91	174	205	180	745	69	279	891	105
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	129	1160	517	112	1125	502	204	853	380	303	1050	468
Arrive On Green	0.08	0.35	0.35	0.07	0.34	0.34	0.12	0.26	0.26	0.18	0.32	0.32
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	107	259	261	91	174	205	180	745	69	279	891	105
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	7.8	6.7	17.1	6.6	4.5	13.0	13.0	26.3	4.4	20.2	30.7	6.4
Cycle Q Clear(g_c), s	7.8	6.7	17.1	6.6	4.5	13.0	13.0	26.3	4.4	20.2	30.7	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	1160	517	112	1125	502	204	853	380	303	1050	468
V/C Ratio(X)	0.83	0.22	0.50	0.81	0.15	0.41	0.88	0.87	0.18	0.92	0.85	0.22
Avail Cap(c_a), veh/h	136	1160	517	141	1125	502	211	1003	448	319	1220	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	28.2	31.6	56.5	28.4	31.2	53.0	43.7	35.6	49.4	39.3	31.0
Incr Delay (d2), s/veh	31.6	0.4	3.5	23.9	0.3	2.5	31.8	7.7	0.2	30.1	5.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.7	6.3	3.4	1.8	4.8	7.1	11.3	1.6	10.5	12.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.5	28.7	35.1	80.4	28.7	33.6	84.8	51.4	35.8	79.4	44.4	31.2
LnGrp LOS	F	C	D	F	C	C	F	D	D	E	D	C
Approach Vol, veh/h		627			470			994			1275	
Approach Delay, s/veh		41.4			40.8			56.4			51.0	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.3	19.5	43.2	14.0	46.0	26.8	35.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	15.5	45.0	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	9.6	19.1	15.0	32.7	9.8	15.0	22.2	28.3
Green Ext Time (p_c), s	0.0	2.3	0.0	4.6	0.0	1.6	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	49.4
HCM 6th LOS	D

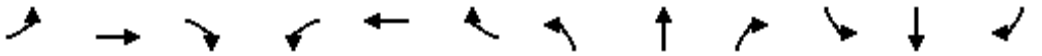
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Future Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	0	20	2	0	0	8	191	1	0	191	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	20	0	0	259	134	10	230	144	0
Stage 1	-	-	-	-	-	-	130	130	-	4	4	-
Stage 2	-	-	-	-	-	-	129	4	-	226	140	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	-	-	-	1570	-	-	686	749	1060	717	740	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	885	-
Stage 2	-	-	-	-	-	-	865	885	-	768	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1570	-	-	-	748	1060	575	739	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	748	-	575	739	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	884	-
Stage 2	-	-	-	-	-	-	678	884	-	580	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1570	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	-	-	-	7.3	0	-	-
HCM Lane LOS	-	-	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	598	35	19	377	128	45	62	26	116	65	110
Future Volume (veh/h)	79	598	35	19	377	128	45	62	26	116	65	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	83	629	37	20	397	135	47	65	27	122	68	116
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	135	1095	488	43	913	407	236	278	92	275	132	164
Arrive On Green	0.08	0.32	0.32	0.03	0.27	0.27	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	363	970	321	480	460	573
Grp Volume(v), veh/h	83	629	37	20	397	135	139	0	0	306	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1655	0	0	1513	0	0
Q Serve(g_s), s	1.7	5.6	0.6	0.4	3.5	2.6	0.0	0.0	0.0	4.2	0.0	0.0
Cycle Q Clear(g_c), s	1.7	5.6	0.6	0.4	3.5	2.6	2.2	0.0	0.0	6.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.34		0.19	0.40		0.38
Lane Grp Cap(c), veh/h	135	1095	488	43	913	407	606	0	0	571	0	0
V/C Ratio(X)	0.62	0.57	0.08	0.46	0.43	0.33	0.23	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	1278	3730	1664	1278	3730	1664	1807	0	0	1755	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.3	10.4	8.7	17.5	11.1	10.8	10.1	0.0	0.0	11.5	0.0	0.0
Incr Delay (d2), s/veh	4.5	0.5	0.1	7.4	0.3	0.5	0.2	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.2	0.1	0.2	0.8	0.6	0.7	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	10.8	8.7	25.0	11.4	11.3	10.3	0.0	0.0	12.3	0.0	0.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		749			552			139			306	
Approach Delay, s/veh		11.8			11.9			10.3			12.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	16.1		14.9	7.3	14.2		14.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.4	7.6		8.4	3.7	5.5		4.2				
Green Ext Time (p_c), s	0.0	4.0		2.1	0.2	2.8		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		11.8	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	421	40	56	275	60	40	55	121	179	151	103
Future Volume (veh/h)	43	421	40	56	275	60	40	55	121	179	151	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	56	547	52	73	357	78	52	71	157	232	196	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	135	734	70	149	823	367	149	206	397	312	234	155
Arrive On Green	0.08	0.24	0.24	0.09	0.25	0.25	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1682	3098	294	1682	3357	1497	214	420	810	531	478	316
Grp Volume(v), veh/h	56	296	303	73	357	78	280	0	0	562	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1714	1682	1678	1497	1444	0	0	1325	0	0
Q Serve(g_s), s	3.1	15.9	16.0	4.0	8.8	4.0	0.0	0.0	0.0	26.3	0.0	0.0
Cycle Q Clear(g_c), s	3.1	15.9	16.0	4.0	8.8	4.0	10.8	0.0	0.0	37.1	0.0	0.0
Prop In Lane	1.00		0.17	1.00		1.00	0.19		0.56	0.41		0.24
Lane Grp Cap(c), veh/h	135	398	406	149	823	367	752	0	0	702	0	0
V/C Ratio(X)	0.42	0.74	0.75	0.49	0.43	0.21	0.37	0.00	0.00	0.80	0.00	0.00
Avail Cap(c_a), veh/h	186	507	518	198	1039	463	943	0	0	885	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.7	34.5	34.5	42.4	31.1	29.3	15.4	0.0	0.0	22.5	0.0	0.0
Incr Delay (d2), s/veh	2.0	9.9	9.9	2.5	1.3	1.0	1.1	0.0	0.0	8.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.1	7.3	1.7	3.4	1.5	3.8	0.0	0.0	11.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	44.4	44.4	44.9	32.4	30.4	16.5	0.0	0.0	30.5	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		655			508			280			562	
Approach Delay, s/veh		44.5			33.9			16.5			30.5	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	30.1		54.9	11.8	30.9		54.9				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	6.1	18.0		12.8	5.1	10.8		39.1				
Green Ext Time (p_c), s	0.1	5.1		5.0	0.0	5.1		8.7				

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1634	-	-	-	1026	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1634	-	-	-	1026	1088
Mov Cap-2 Maneuver	-	-	-	-	1026	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1634	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	766	2	7	535	5	7	0	9	4	0	0
Future Vol, veh/h	0	766	2	7	535	5	7	0	9	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	806	2	7	563	5	7	0	9	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	568	0	0	808	0	0	1103	1389	404	983	1388	284
Stage 1	-	-	-	-	-	-	807	807	-	580	580	-
Stage 2	-	-	-	-	-	-	296	582	-	403	808	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	953	-	-	769	-	-	157	133	577	193	133	692
Stage 1	-	-	-	-	-	-	327	376	-	450	481	-
Stage 2	-	-	-	-	-	-	669	480	-	576	376	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	953	-	-	769	-	-	156	132	577	189	132	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	132	-	189	132	-
Stage 1	-	-	-	-	-	-	327	376	-	450	477	-
Stage 2	-	-	-	-	-	-	663	476	-	567	376	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19.5	24.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	953	-	-	769	-	-	189
HCM Lane V/C Ratio	0.064	-	-	-	0.01	-	-	0.022
HCM Control Delay (s)	19.5	0	-	-	9.7	-	-	24.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	134	31	19	23	5	16	90	43	10	39	7
Future Vol, veh/h	9	134	31	19	23	5	16	90	43	10	39	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	176	41	25	30	7	21	118	57	13	51	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	8.4	9.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	5%	40%	18%
Vol Thru, %	60%	77%	49%	70%
Vol Right, %	29%	18%	11%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	174	47	56
LT Vol	16	9	19	10
Through Vol	90	134	23	39
RT Vol	43	31	5	7
Lane Flow Rate	196	229	62	74
Geometry Grp	1	1	1	1
Degree of Util (X)	0.25	0.292	0.084	0.099
Departure Headway (Hd)	4.599	4.586	4.9	4.858
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	783	728	735
Service Time	2.637	2.623	2.947	2.904
HCM Lane V/C Ratio	0.252	0.292	0.085	0.101
HCM Control Delay	9.2	9.5	8.4	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.2	0.3	0.3

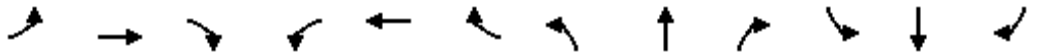
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	161	0	0	118	0
Future Vol, veh/h	0	0	0	0	0	0	0	161	0	0	118	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	0	0	0	0	179	0	0	131	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	310	310	131	310	310	179	131	0	0	179	0	0
Stage 1	131	131	-	179	179	-	-	-	-	-	-	-
Stage 2	179	179	-	131	131	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	629	593	900	629	593	846	1412	-	-	1355	-	-
Stage 1	856	775	-	807	738	-	-	-	-	-	-	-
Stage 2	807	738	-	856	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	629	593	900	629	593	846	1412	-	-	1355	-	-
Mov Cap-2 Maneuver	629	593	-	629	593	-	-	-	-	-	-	-
Stage 1	856	775	-	807	738	-	-	-	-	-	-	-
Stage 2	807	738	-	856	775	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1412	-	-	-	-	1355	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	579	151	174	379	200	146	354	177	121	233	44
Future Volume (veh/h)	95	579	151	174	379	200	146	354	177	121	233	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	104	636	166	191	416	220	160	389	195	133	256	48
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	940	419	241	1149	512	207	718	320	174	343	291
Arrive On Green	0.08	0.27	0.27	0.14	0.33	0.33	0.12	0.20	0.20	0.10	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	104	636	166	191	416	220	160	389	195	133	256	48
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1856	1572
Q Serve(g_s), s	3.5	9.9	5.3	6.4	5.5	6.7	5.4	6.0	6.9	4.5	8.0	1.6
Cycle Q Clear(g_c), s	3.5	9.9	5.3	6.4	5.5	6.7	5.4	6.0	6.9	4.5	8.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	940	419	241	1149	512	207	718	320	174	343	291
V/C Ratio(X)	0.77	0.68	0.40	0.79	0.36	0.43	0.77	0.54	0.61	0.76	0.75	0.16
Avail Cap(c_a), veh/h	449	2224	992	449	2224	992	565	1646	734	565	867	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	20.0	18.4	25.5	15.7	16.1	26.1	21.7	22.1	26.8	23.5	20.9
Incr Delay (d2), s/veh	8.6	0.9	0.6	5.8	0.2	0.6	6.0	0.6	1.9	6.8	3.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.4	1.7	2.7	1.8	2.1	2.3	2.2	2.4	2.0	3.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	20.9	19.0	31.4	15.9	16.7	32.2	22.4	24.0	33.6	26.7	21.2
LnGrp LOS	D	C	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		906			827			744			437	
Approach Delay, s/veh		22.3			19.7			24.9			28.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	20.8	11.7	15.8	9.2	24.4	10.5	16.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	8.4	11.9	7.4	10.0	5.5	8.7	6.5	8.9
Green Ext Time (p_c), s	0.3	4.4	0.3	1.3	0.1	3.1	0.2	2.8

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	112.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	42	95	71	3	88	48	551	105	81	528	7
Future Vol, veh/h	69	42	95	71	3	88	48	551	105	81	528	7
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	92	56	127	95	4	117	64	735	140	108	704	9
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	57.9	21.9	143.2	120.4
HCM LOS	F	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	33%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	64%	20%	0%	3%	0%	100%	96%
Vol Right, %	0%	0%	36%	46%	0%	97%	0%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	367	289	206	71	91	81	352	183
LT Vol	48	0	0	69	71	0	81	0	0
Through Vol	0	367	184	42	0	3	0	352	176
RT Vol	0	0	105	95	0	88	0	0	7
Lane Flow Rate	64	490	385	275	95	121	108	469	244
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.185	1.346	1.031	0.856	0.322	0.373	0.317	1.312	0.68
Departure Headway (Hd)	11.001	10.474	10.205	12.091	13.277	12.04	11.114	10.587	10.559
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	328	353	358	302	273	301	325	347	344
Service Time	8.701	8.174	7.905	9.791	10.977	9.74	8.814	8.287	8.259
HCM Lane V/C Ratio	0.195	1.388	1.075	0.911	0.348	0.402	0.332	1.352	0.709
HCM Control Delay	16.2	202.4	89	57.9	22.2	21.7	18.9	189.2	33
HCM Lane LOS	C	F	F	F	C	C	C	F	D
HCM 95th-tile Q	0.7	22.6	12.4	7.5	1.3	1.7	1.3	21.2	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	24	235	85	19	3	81	575	159	10	638	48
Future Volume (veh/h)	119	24	235	85	19	3	81	575	159	10	638	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	142	29	280	101	23	4	96	685	189	12	760	57
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	414	351	130	356	302	124	1294	577	27	1099	490
Arrive On Green	0.11	0.22	0.22	0.07	0.19	0.19	0.07	0.37	0.37	0.02	0.31	0.31
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	142	29	280	101	23	4	96	685	189	12	760	57
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.5	0.7	9.7	3.2	0.6	0.1	3.1	8.8	5.0	0.4	10.9	1.5
Cycle Q Clear(g_c), s	4.5	0.7	9.7	3.2	0.6	0.1	3.1	8.8	5.0	0.4	10.9	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	414	351	130	356	302	124	1294	577	27	1099	490
V/C Ratio(X)	0.77	0.07	0.80	0.77	0.06	0.01	0.77	0.53	0.33	0.45	0.69	0.12
Avail Cap(c_a), veh/h	538	1420	1203	323	1194	1012	384	2606	1162	154	2146	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	17.4	20.9	25.9	18.8	18.6	26.0	14.1	12.9	27.9	17.1	13.9
Incr Delay (d2), s/veh	6.4	0.1	4.2	9.4	0.1	0.0	9.7	0.3	0.3	11.5	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.3	3.5	1.6	0.2	0.0	1.5	2.9	1.5	0.2	3.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	17.5	25.1	35.3	18.9	18.6	35.7	14.4	13.2	39.3	17.9	14.0
LnGrp LOS	C	B	C	D	B	B	D	B	B	D	B	B
Approach Vol, veh/h		451			128			970			829	
Approach Delay, s/veh		26.5			31.8			16.3			18.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	17.3	8.5	22.4	10.5	15.5	5.4	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	5.2	11.7	5.1	12.9	6.5	2.6	2.4	10.8
Green Ext Time (p_c), s	0.1	1.2	0.1	5.1	0.3	0.1	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	430	246	48	228	101	111	500	83	130	713	93
Future Volume (veh/h)	153	430	246	48	228	101	111	500	83	130	713	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	178	500	286	56	265	117	129	581	97	151	829	108
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	212	813	463	71	1043	465	158	999	446	184	1052	469
Arrive On Green	0.12	0.38	0.38	0.04	0.30	0.30	0.09	0.29	0.29	0.11	0.30	0.30
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	178	407	379	56	265	117	129	581	97	151	829	108
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	9.8	18.6	18.7	3.1	5.7	5.6	7.2	14.1	4.7	8.4	21.5	5.1
Cycle Q Clear(g_c), s	9.8	18.6	18.7	3.1	5.7	5.6	7.2	14.1	4.7	8.4	21.5	5.1
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	662	614	71	1043	465	158	999	446	184	1052	469
V/C Ratio(X)	0.84	0.61	0.62	0.79	0.25	0.25	0.82	0.58	0.22	0.82	0.79	0.23
Avail Cap(c_a), veh/h	333	662	614	89	1043	465	177	1420	633	342	1748	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	24.5	24.6	46.7	26.0	26.0	43.9	29.9	26.6	43.0	31.3	25.6
Incr Delay (d2), s/veh	10.5	4.2	4.6	30.1	0.6	1.3	23.0	0.5	0.2	8.6	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	7.6	7.2	1.9	2.2	2.2	4.0	5.7	1.7	3.9	8.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	28.8	29.2	76.8	26.6	27.3	66.9	30.4	26.8	51.6	32.7	25.9
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		964			438			807			1088	
Approach Delay, s/veh		33.3			33.2			35.8			34.6	
Approach LOS		C			C			D			C	

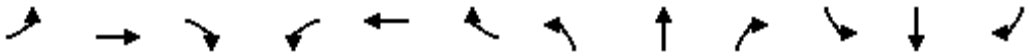
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	42.0	13.4	34.3	16.5	34.0	14.9	32.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.1	20.7	9.2	23.5	11.8	7.7	10.4	16.1
Green Ext Time (p_c), s	0.0	4.0	0.0	6.3	0.2	1.6	0.2	4.1

Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	79	700	108	83	910
Future Volume (veh/h)	48	79	700	108	83	910
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	53	88	778	120	92	1011
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1814	280	116	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3154	472	1767	3618
Grp Volume(v), veh/h	53	88	448	450	92	1011
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1771	1767	1763
Q Serve(g_s), s	2.9	5.5	16.7	16.7	6.2	14.7
Cycle Q Clear(g_c), s	2.9	5.5	16.7	16.7	6.2	14.7
Prop In Lane	1.00	1.00		0.27	1.00	
Lane Grp Cap(c), veh/h	405	360	1044	1049	116	2453
V/C Ratio(X)	0.13	0.24	0.43	0.43	0.79	0.41
Avail Cap(c_a), veh/h	405	360	1044	1049	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	37.8	13.4	13.4	55.2	7.8
Incr Delay (d2), s/veh	0.7	1.6	1.3	1.3	11.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.4	6.5	6.6	3.0	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.4	39.4	14.7	14.6	66.4	8.3
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	141		898			1103
Approach Delay, s/veh	38.6		14.6			13.1
Approach LOS	D		B			B

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		88.0		32.0	12.4	75.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s		16.7		7.5	8.2	18.7
Green Ext Time (p_c), s		8.3		0.3	0.1	6.3

Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	880	48	51	961	70	37	29	82	50	18	12
Future Volume (veh/h)	17	880	48	51	961	70	37	29	82	50	18	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	18	967	53	56	1056	76	41	32	90	54	20	13
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	155	1571	86	91	1424	102	153	53	150	89	92	60
Arrive On Green	0.09	0.46	0.46	0.05	0.43	0.43	0.09	0.12	0.12	0.05	0.09	0.09
Sat Flow, veh/h	1781	3399	186	1767	3335	240	1767	433	1218	1781	1058	688
Grp Volume(v), veh/h	18	502	518	56	558	574	41	0	122	54	0	33
Grp Sat Flow(s),veh/h/ln	1781	1763	1822	1767	1763	1812	1767	0	1651	1781	0	1747
Q Serve(g_s), s	0.5	12.3	12.3	1.8	15.3	15.3	1.2	0.0	4.0	1.7	0.0	1.0
Cycle Q Clear(g_c), s	0.5	12.3	12.3	1.8	15.3	15.3	1.2	0.0	4.0	1.7	0.0	1.0
Prop In Lane	1.00		0.10	1.00		0.13	1.00		0.74	1.00		0.39
Lane Grp Cap(c), veh/h	155	815	842	91	752	774	153	0	204	89	0	152
V/C Ratio(X)	0.12	0.62	0.62	0.62	0.74	0.74	0.27	0.00	0.60	0.60	0.00	0.22
Avail Cap(c_a), veh/h	560	1699	1756	316	1460	1501	556	0	786	272	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	11.6	11.6	26.8	13.8	13.8	24.6	0.0	23.9	26.8	0.0	24.5
Incr Delay (d2), s/veh	0.3	0.8	0.7	6.6	1.5	1.4	0.9	0.0	2.8	6.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.4	3.5	0.8	4.5	4.6	0.5	0.0	1.6	0.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	12.4	12.4	33.4	15.3	15.3	25.5	0.0	26.7	33.2	0.0	25.2
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1038			1188			163			87	
Approach Delay, s/veh		12.6			16.1			26.4			30.1	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	31.1	9.5	9.5	9.5	29.1	7.4	11.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.3	55.5	18.1	18.1	18.1	47.7	8.8	27.4
Max Q Clear Time (g_c+I1), s	3.8	14.3	3.2	3.0	2.5	17.3	3.7	6.0
Green Ext Time (p_c), s	0.0	6.5	0.1	0.1	0.0	7.3	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	194	6	84	137	38	3	48	128	19	30	8
Future Vol, veh/h	24	194	6	84	137	38	3	48	128	19	30	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	28	223	7	97	157	44	3	55	147	22	34	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	201	0	0	230	0	0	678	678	227	757	659	179
Stage 1	-	-	-	-	-	-	283	283	-	373	373	-
Stage 2	-	-	-	-	-	-	395	395	-	384	286	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1377	-	-	1344	-	-	367	375	815	325	385	866
Stage 1	-	-	-	-	-	-	726	679	-	650	620	-
Stage 2	-	-	-	-	-	-	632	606	-	641	677	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1377	-	-	1344	-	-	313	341	815	217	350	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	313	341	-	217	350	-
Stage 1	-	-	-	-	-	-	711	665	-	637	575	-
Stage 2	-	-	-	-	-	-	545	562	-	472	663	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2.6	14.2	19.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	313	591	1377	-	-	1344	-	-	312
HCM Lane V/C Ratio	0.011	0.342	0.02	-	-	0.072	-	-	0.21
HCM Control Delay (s)	16.6	14.2	7.7	-	-	7.9	-	-	19.6
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	1.5	0.1	-	-	0.2	-	-	0.8

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	120	55	69	63	1	38	0	64	0	1	1
Future Vol, veh/h	0	120	55	69	63	1	38	0	64	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	135	62	78	71	1	43	0	72	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	197	0	0	395	394	166	430	425	72
Stage 1	-	-	-	-	-	-	166	166	-	228	228	-
Stage 2	-	-	-	-	-	-	229	228	-	202	197	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1534	-	-	1382	-	-	567	544	881	537	523	993
Stage 1	-	-	-	-	-	-	838	763	-	777	717	-
Stage 2	-	-	-	-	-	-	776	717	-	802	740	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1382	-	-	540	512	881	471	492	993
Mov Cap-2 Maneuver	-	-	-	-	-	-	540	512	-	471	492	-
Stage 1	-	-	-	-	-	-	838	763	-	777	675	-
Stage 2	-	-	-	-	-	-	728	675	-	737	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4	11	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	713	1534	-	-	1382	-	-	658
HCM Lane V/C Ratio	0.161	-	-	-	0.056	-	-	0.003
HCM Control Delay (s)	11	0	-	-	7.8	0	-	10.5
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0.2	-	-	0

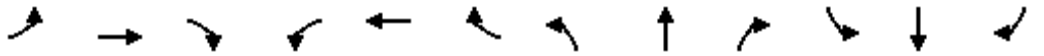
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	12	0	0	0	106	0	0	106	0
Future Vol, veh/h	0	0	0	12	0	0	0	106	0	0	106	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	13	0	0	0	114	0	0	114	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	228	228	114	228	228	114	114	0	0	114	0	0
Stage 1	114	114	-	114	114	-	-	-	-	-	-	-
Stage 2	114	114	-	114	114	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	731	675	944	731	675	944	1488	-	-	1488	-	-
Stage 1	896	805	-	896	805	-	-	-	-	-	-	-
Stage 2	896	805	-	896	805	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	731	675	944	731	675	944	1488	-	-	1488	-	-
Mov Cap-2 Maneuver	731	675	-	731	675	-	-	-	-	-	-	-
Stage 1	896	805	-	896	805	-	-	-	-	-	-	-
Stage 2	896	805	-	896	805	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	-	731	1488	-	-
HCM Lane V/C Ratio	-	-	-	-	0.018	-	-	-
HCM Control Delay (s)	0	-	-	0	10	0	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	662	310	112	580	117	419	257	188	116	137	92
Future Volume (veh/h)	63	662	310	112	580	117	419	257	188	116	137	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	720	337	122	630	127	455	279	204	126	149	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	937	794	152	1005	852	119	343	291	89	592	264
Arrive On Green	0.05	0.50	0.50	0.09	0.54	0.54	0.07	0.18	0.18	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	68	720	337	122	630	127	455	279	204	126	149	100
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	3.8	31.2	13.5	6.7	23.5	4.0	6.7	14.3	12.1	5.0	3.6	5.6
Cycle Q Clear(g_c), s	3.8	31.2	13.5	6.7	23.5	4.0	6.7	14.3	12.1	5.0	3.6	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	937	794	152	1005	852	119	343	291	89	592	264
V/C Ratio(X)	0.78	0.77	0.42	0.80	0.63	0.15	3.81	0.81	0.70	1.41	0.25	0.38
Avail Cap(c_a), veh/h	118	937	794	273	1005	852	119	687	582	89	1244	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	20.3	15.8	44.9	16.1	11.6	46.6	39.2	38.2	47.5	36.2	37.1
Incr Delay (d2), s/veh	20.3	6.0	1.7	9.3	3.0	0.4	1285.0	4.7	3.1	239.9	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	13.1	4.8	3.2	9.2	1.4	45.5	6.7	4.7	8.1	1.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	26.3	17.5	54.1	19.1	12.0	1331.6	43.8	41.3	287.4	36.5	37.9
LnGrp LOS	E	C	B	D	B	B	F	D	D	F	D	D
Approach Vol, veh/h		1125			879			938			375	
Approach Delay, s/veh		26.1			22.9			667.9			121.2	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	54.6	11.2	21.2	9.4	58.2	9.5	22.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.7	33.2	8.7	7.6	5.8	25.5	7.0	16.3
Green Ext Time (p_c), s	0.1	4.3	0.0	1.1	0.0	4.2	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	217.5
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	137	123	108	135	39	216	542	252	37	334	34
Future Volume (veh/h)	37	137	123	108	135	39	216	542	252	37	334	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	146	131	115	144	41	230	577	268	39	355	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	307	276	142	542	154	262	737	625	55	907	91
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.28	0.28
Sat Flow, veh/h	1781	908	815	1781	1400	399	1781	1870	1585	1781	3260	329
Grp Volume(v), veh/h	39	0	277	115	0	185	230	577	268	39	193	198
Grp Sat Flow(s),veh/h/ln	1781	0	1724	1781	0	1799	1781	1870	1585	1781	1777	1811
Q Serve(g_s), s	2.5	0.0	14.5	7.3	0.0	8.1	14.5	31.0	14.1	2.5	10.1	10.2
Cycle Q Clear(g_c), s	2.5	0.0	14.5	7.3	0.0	8.1	14.5	31.0	14.1	2.5	10.1	10.2
Prop In Lane	1.00		0.47	1.00		0.22	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	55	0	583	142	0	696	262	737	625	55	494	504
V/C Ratio(X)	0.71	0.00	0.47	0.81	0.00	0.27	0.88	0.78	0.43	0.71	0.39	0.39
Avail Cap(c_a), veh/h	95	0	583	210	0	696	365	737	625	98	494	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	29.9	51.9	0.0	24.0	47.9	30.5	25.3	55.1	33.5	33.6
Incr Delay (d2), s/veh	15.2	0.0	2.8	13.7	0.0	0.9	16.2	8.1	2.1	15.2	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	6.2	3.7	0.0	3.5	7.4	14.8	5.4	1.3	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	0.0	32.7	65.6	0.0	25.0	64.2	38.6	27.5	70.2	35.8	35.9
LnGrp LOS	E	A	C	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		316			300			1075			430	
Approach Delay, s/veh		37.3			40.6			41.3			39.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.3	21.3	36.4	8.1	48.9	8.1	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	16.5	16.5	12.2	4.5	10.1	4.5	33.0
Green Ext Time (p_c), s	0.1	1.4	0.3	1.8	0.0	1.0	0.0	3.5

Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	421	83	111	233	235	188	853	149	228	458	70
Future Volume (veh/h)	134	421	83	111	233	235	188	853	149	228	458	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	430	85	113	238	240	192	870	152	233	467	71
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1170	522	140	1120	500	223	1036	462	266	1121	500
Arrive On Green	0.09	0.33	0.33	0.08	0.32	0.32	0.13	0.29	0.29	0.15	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	137	430	85	113	238	240	192	870	152	233	467	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.0	11.0	4.5	7.4	5.8	14.5	12.6	27.3	8.9	15.2	12.3	3.8
Cycle Q Clear(g_c), s	9.0	11.0	4.5	7.4	5.8	14.5	12.6	27.3	8.9	15.2	12.3	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	1170	522	140	1120	500	223	1036	462	266	1121	500
V/C Ratio(X)	0.83	0.37	0.16	0.81	0.21	0.48	0.86	0.84	0.33	0.88	0.42	0.14
Avail Cap(c_a), veh/h	262	1170	522	265	1120	500	389	1329	593	487	1523	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	30.4	28.3	53.9	29.9	32.9	51.0	39.5	33.0	49.5	32.1	29.2
Incr Delay (d2), s/veh	11.6	0.9	0.7	10.5	0.4	3.3	9.3	4.0	0.4	8.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.6	1.8	3.6	2.4	5.8	6.0	12.0	3.4	7.2	5.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	31.3	28.9	64.4	30.3	36.2	60.3	43.5	33.4	58.5	32.3	29.3
LnGrp LOS	E	C	C	E	C	D	E	D	C	E	C	C
Approach Vol, veh/h		652			591			1214			771	
Approach Delay, s/veh		38.0			39.2			44.9			40.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	43.7	19.4	42.0	15.5	42.0	22.3	39.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	37.3	26.0	51.0	17.5	37.5	32.5	44.5
Max Q Clear Time (g_c+I1), s	9.4	13.0	14.6	14.3	11.0	16.5	17.2	29.3
Green Ext Time (p_c), s	0.1	2.7	0.4	3.2	0.2	2.0	0.5	5.4

Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

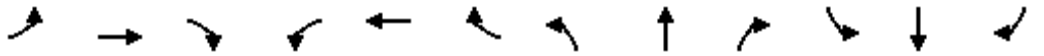
Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	6	133	28	7	97
Future Vol, veh/h	21	6	133	28	7	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	23	7	148	31	8	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	288	164	0	0	179	0
Stage 1	164	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	688	863	-	-	1355	-
Stage 1	848	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	684	863	-	-	1355	-
Mov Cap-2 Maneuver	684	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	879	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	717	1355	-
HCM Lane V/C Ratio	-	-	0.042	0.006	-
HCM Control Delay (s)	-	-	10.2	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	906	9	29	755	0	5	0	70	0	0	0
Future Volume (veh/h)	39	906	9	29	755	0	5	0	70	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	964	10	31	803	0	5	0	74			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	420	2002	21	44	2193	0	21	0	309			
Arrive On Green	0.62	0.62	0.62	0.03	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	608	3232	34	1598	3272	0	91	0	1341			
Grp Volume(v), veh/h	41	475	499	31	803	0	79	0	0			
Grp Sat Flow(s),veh/h/ln	608	1594	1672	1598	1594	0	1432	0	0			
Q Serve(g_s), s	3.3	17.9	17.9	2.1	11.6	0.0	5.0	0.0	0.0			
Cycle Q Clear(g_c), s	7.4	17.9	17.9	2.1	11.6	0.0	5.0	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.06		0.94			
Lane Grp Cap(c), veh/h	420	987	1036	44	2193	0	330	0	0			
V/C Ratio(X)	0.10	0.48	0.48	0.70	0.37	0.00	0.24	0.00	0.00			
Avail Cap(c_a), veh/h	420	987	1036	181	2465	0	330	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.3	11.4	11.4	53.3	7.2	0.0	34.6	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.7	1.6	17.9	0.1	0.0	1.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.7	5.9	1.0	3.0	0.0	1.9	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.8	13.1	13.0	71.2	7.3	0.0	36.3	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		1015			834			79				
Approach Delay, s/veh		13.0			9.7			36.3				
Approach LOS		B			A			D				
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.6	73.0				80.6		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	4.1	19.9				13.6		7.0				
Green Ext Time (p_c), s	0.0	6.8				5.6		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	64	36	106	59	122	11	466	108	123	673	2
Future Volume (veh/h)	1	64	36	106	59	122	11	466	108	123	673	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	1	72	40	119	66	137	12	524	121	138	756	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	88	316	174	244	122	184	26	903	403	179	1237	3
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.27	0.27	0.11	0.36	0.36
Sat Flow, veh/h	3	1060	582	422	410	616	1668	3328	1485	1668	3405	9
Grp Volume(v), veh/h	113	0	0	322	0	0	12	524	121	138	369	389
Grp Sat Flow(s),veh/h/ln	1645	0	0	1447	0	0	1668	1664	1485	1668	1664	1750
Q Serve(g_s), s	0.0	0.0	0.0	5.9	0.0	0.0	0.3	5.7	2.7	3.4	7.6	7.6
Cycle Q Clear(g_c), s	2.2	0.0	0.0	8.2	0.0	0.0	0.3	5.7	2.7	3.4	7.6	7.6
Prop In Lane	0.01		0.35	0.37		0.43	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	578	0	0	550	0	0	26	903	403	179	604	636
V/C Ratio(X)	0.20	0.00	0.00	0.59	0.00	0.00	0.46	0.58	0.30	0.77	0.61	0.61
Avail Cap(c_a), veh/h	1597	0	0	1424	0	0	379	3859	1721	778	2328	2448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	0.0	0.0	13.1	0.0	0.0	20.4	13.2	12.1	18.2	10.9	10.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.0	0.0	0.0	12.3	0.6	0.4	6.8	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	2.3	0.0	0.0	0.2	1.5	0.6	1.3	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	0.0	0.0	14.1	0.0	0.0	32.7	13.8	12.5	25.0	11.9	11.9
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		113			322			657			896	
Approach Delay, s/veh		11.2			14.1			13.9			13.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	17.0	5.2	19.7	17.0	9.0	15.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	38.5	9.5	58.5	38.5	19.5	48.5
Max Q Clear Time (g_c+I1), s	4.2	2.3	9.6	10.2	5.4	7.7
Green Ext Time (p_c), s	0.7	0.0	4.4	2.2	0.3	3.7

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	440	253	246	449	101	85	445	266	75	537	271
Future Volume (veh/h)	257	440	253	246	449	101	85	445	266	75	537	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	473	272	265	483	109	91	478	286	81	577	291
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	311	801	357	300	780	348	115	1006	448	101	630	317
Arrive On Green	0.19	0.25	0.25	0.19	0.24	0.24	0.07	0.31	0.31	0.06	0.30	0.30
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	276	473	272	265	483	109	91	478	286	81	448	420
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	15.9	12.3	16.7	15.3	12.8	5.9	5.3	11.4	16.3	4.7	25.6	25.7
Cycle Q Clear(g_c), s	15.9	12.3	16.7	15.3	12.8	5.9	5.3	11.4	16.3	4.7	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	311	801	357	300	780	348	115	1006	448	101	490	458
V/C Ratio(X)	0.89	0.59	0.76	0.88	0.62	0.31	0.79	0.48	0.64	0.80	0.92	0.92
Avail Cap(c_a), veh/h	465	801	357	465	780	348	354	1340	598	198	515	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	31.5	33.1	37.7	32.2	29.6	43.6	26.4	28.1	44.1	32.0	32.0
Incr Delay (d2), s/veh	13.0	3.2	14.2	11.9	3.7	2.3	11.7	0.3	1.5	13.4	20.6	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	4.7	6.7	6.6	5.0	2.1	2.4	4.0	5.2	2.1	11.7	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	34.7	47.3	49.6	35.9	31.9	55.2	26.8	29.6	57.4	52.5	53.8
LnGrp LOS	D	C	D	D	D	C	E	C	C	E	D	D
Approach Vol, veh/h		1021			857			855			949	
Approach Delay, s/veh		42.3			39.6			30.8			53.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	28.2	11.3	33.5	22.9	27.6	10.5	34.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	17.3	18.7	7.3	27.7	17.9	14.8	6.7	18.3
Green Ext Time (p_c), s	0.5	1.5	0.1	1.4	0.5	2.0	0.1	3.7

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	0	60	14	0	0	184	853	14	7	930	110
Future Volume (veh/h)	22	0	60	14	0	0	184	853	14	7	930	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	25	0	67	16	0	0	207	958	16	8	1045	124
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	39	1120	500	28	1099	490	220	1525	680	16	1118	498
Arrive On Green	0.02	0.00	0.35	0.02	0.00	0.00	0.14	0.47	0.47	0.01	0.34	0.34
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	25	0	67	16	0	0	207	958	16	8	1045	124
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.7	0.0	3.6	1.1	0.0	0.0	14.4	25.4	0.7	0.6	35.6	7.0
Cycle Q Clear(g_c), s	1.7	0.0	3.6	1.1	0.0	0.0	14.4	25.4	0.7	0.6	35.6	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	1120	500	28	1099	490	220	1525	680	16	1118	498
V/C Ratio(X)	0.64	0.00	0.13	0.56	0.00	0.00	0.94	0.63	0.02	0.50	0.94	0.25
Avail Cap(c_a), veh/h	107	1120	500	92	1099	490	220	1525	680	92	1148	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	0.0	25.7	55.8	0.0	0.0	49.0	22.8	16.2	56.4	36.3	26.9
Incr Delay (d2), s/veh	16.2	0.0	0.6	16.4	0.0	0.0	44.0	0.8	0.0	22.3	13.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.3	0.6	0.0	0.0	8.3	8.9	0.2	0.3	15.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.6	0.0	26.3	72.2	0.0	0.0	93.0	23.6	16.3	78.7	49.9	27.1
LnGrp LOS	E	A	C	E	A	A	F	C	B	E	D	C
Approach Vol, veh/h		92			16			1181			1177	
Approach Delay, s/veh		38.6			72.2			35.7			47.7	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	44.0	20.0	43.9	7.2	43.3	5.6	58.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	3.1	5.6	16.4	37.6	3.7	0.0	2.6	27.4
Green Ext Time (p_c), s	0.0	0.2	0.0	1.8	0.0	0.0	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	41.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	869	168
Future Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	869	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1230	23	7	1010	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	307	0	163	172	29	80	183	1895	35	15	1552	692
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.58	0.58	0.01	0.47	0.47
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3286	61	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	612	641	7	1010	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1711	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.1	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	163	281	0	0	183	944	987	15	1552	692
V/C Ratio(X)	0.07	0.00	0.23	0.01	0.00	0.00	1.79	0.65	0.65	0.46	0.65	0.28
Avail Cap(c_a), veh/h	789	0	702	780	0	0	183	2691	2814	422	5857	2613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	18.1	17.6	0.0	0.0	19.8	6.4	6.4	22.0	8.9	7.1
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.0	0.0	0.0	375.4	0.8	0.7	19.9	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	20.6	1.4	1.5	0.1	1.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	18.8	17.7	0.0	0.0	395.2	7.2	7.1	41.9	9.4	7.4
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1581			1212	
Approach Delay, s/veh		18.5			17.7			87.7			9.3	
Approach LOS		B			B			F			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.5	9.5	25.7	9.5	4.9	30.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	5.0	80.0	21.5	11.5	73.5
Max Q Clear Time (g_c+I1), s	3.0	7.0	12.5	2.1	2.2	13.3
Green Ext Time (p_c), s	0.2	0.0	8.7	0.0	0.0	9.4

Intersection Summary	
HCM 6th Ctrl Delay	52.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	176	229	65	145	241	190	1041	73	193	657	56
Future Volume (veh/h)	103	176	229	65	145	241	190	1041	73	193	657	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	111	189	246	70	156	259	204	1119	78	208	706	60
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
Arrive On Green	0.07	0.33	0.33	0.05	0.31	0.31	0.14	0.34	0.34	0.13	0.34	0.34
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	111	189	246	70	156	259	204	1119	78	208	706	60
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	8.5	5.2	17.0	5.3	4.4	18.7	15.5	42.8	4.7	15.9	22.9	3.6
Cycle Q Clear(g_c), s	8.5	5.2	17.0	5.3	4.4	18.7	15.5	42.8	4.7	15.9	22.9	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
V/C Ratio(X)	0.90	0.17	0.49	0.80	0.15	0.55	0.89	0.97	0.15	0.93	0.62	0.12
Avail Cap(c_a), veh/h	123	1121	500	113	1051	469	274	1149	512	224	1139	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	30.5	34.5	60.9	32.2	37.1	55.2	42.2	29.7	55.7	35.9	29.5
Incr Delay (d2), s/veh	52.4	0.3	3.4	25.8	0.3	4.6	25.5	20.5	0.1	41.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.1	6.4	2.9	1.8	7.2	8.0	20.0	1.7	9.0	9.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.2	30.9	37.9	86.7	32.5	41.7	80.7	62.6	29.8	96.7	36.9	29.6
LnGrp LOS	F	C	D	F	C	D	F	E	C	F	D	C
Approach Vol, veh/h		546			485			1401			974	
Approach Delay, s/veh		50.6			45.2			63.4			49.3	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	47.9	22.2	48.6	14.0	45.2	21.8	49.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.8	41.5	21.2	40.6	9.5	40.7	17.3	44.5
Max Q Clear Time (g_c+I1), s	7.3	19.0	17.5	24.9	10.5	20.7	17.9	44.8
Green Ext Time (p_c), s	0.0	1.8	0.2	3.9	0.0	1.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	11.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	5	23	21	2	6	23	176	7	5	184	56
Future Vol, veh/h	57	5	23	21	2	6	23	176	7	5	184	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	5	24	22	2	6	24	187	7	5	196	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	29	0	0	316	191	17	285	200	5
Stage 1	-	-	-	-	-	-	139	139	-	49	49	-
Stage 2	-	-	-	-	-	-	177	52	-	236	151	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1586	-	-	1559	-	-	629	697	1050	659	689	1067
Stage 1	-	-	-	-	-	-	855	774	-	954	846	-
Stage 2	-	-	-	-	-	-	816	844	-	758	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1559	-	-	439	661	1050	492	653	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	439	661	-	492	653	-
Stage 1	-	-	-	-	-	-	822	744	-	917	834	-
Stage 2	-	-	-	-	-	-	581	832	-	541	735	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.9	5.3	13.7	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1586	-	-	1559	-	-	711
HCM Lane V/C Ratio	0.346	0.038	-	-	0.014	-	-	0.367
HCM Control Delay (s)	13.7	7.4	0	-	7.3	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	583	33	33	678	160	13	71	23	101	59	59
Future Volume (veh/h)	161	583	33	33	678	160	13	71	23	101	59	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	171	620	35	35	721	170	14	76	24	107	63	63
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	229	1558	695	70	1242	554	123	173	51	411	124	124
Arrive On Green	0.13	0.45	0.45	0.04	0.36	0.36	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	108	1162	339	1254	831	831
Grp Volume(v), veh/h	171	620	35	35	721	170	114	0	0	107	0	126
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1609	0	0	1254	0	1662
Q Serve(g_s), s	3.6	4.5	0.5	0.8	6.4	3.0	0.0	0.0	0.0	0.0	0.0	2.6
Cycle Q Clear(g_c), s	3.6	4.5	0.5	0.8	6.4	3.0	2.7	0.0	0.0	2.1	0.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.21	1.00		0.50
Lane Grp Cap(c), veh/h	229	1558	695	70	1242	554	347	0	0	411	0	248
V/C Ratio(X)	0.75	0.40	0.05	0.50	0.58	0.31	0.33	0.00	0.00	0.26	0.00	0.51
Avail Cap(c_a), veh/h	1233	3598	1605	1233	3598	1605	1849	0	0	1551	0	1759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	6.9	5.8	17.7	9.8	8.7	14.6	0.0	0.0	14.6	0.0	14.8
Incr Delay (d2), s/veh	4.8	0.2	0.0	5.4	0.4	0.3	0.5	0.0	0.0	0.3	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.7	0.1	0.3	1.3	0.6	0.8	0.0	0.0	0.7	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	7.1	5.8	23.1	10.2	9.0	15.2	0.0	0.0	14.9	0.0	16.4
LnGrp LOS	C	A	A	C	B	A	B	A	A	B	A	B
Approach Vol, veh/h		826			926			114			233	
Approach Delay, s/veh		9.8			10.5			15.2			15.7	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	21.6		10.1	9.5	18.1		10.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.8	6.5		4.6	5.6	8.4		4.7				
Green Ext Time (p_c), s	0.1	4.0		1.2	0.4	5.2		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.0									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	299	54	140	384	155	45	158	75	90	80	43
Future Volume (veh/h)	79	299	54	140	384	155	45	158	75	90	80	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	374	68	175	480	194	56	198	94	112	100	54
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	220	812	146	253	1025	457	117	302	131	212	177	79
Arrive On Green	0.13	0.28	0.28	0.15	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1711	2889	520	1711	3413	1522	180	1032	448	453	604	269
Grp Volume(v), veh/h	99	220	222	175	480	194	348	0	0	266	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1703	1711	1706	1522	1660	0	0	1326	0	0
Q Serve(g_s), s	3.5	6.9	7.0	6.3	7.4	6.6	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	6.9	7.0	6.3	7.4	6.6	11.7	0.0	0.0	11.6	0.0	0.0
Prop In Lane	1.00		0.31	1.00		1.00	0.16		0.27	0.42		0.20
Lane Grp Cap(c), veh/h	220	480	478	253	1025	457	551	0	0	467	0	0
V/C Ratio(X)	0.45	0.46	0.47	0.69	0.47	0.42	0.63	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	502	870	869	767	2269	1012	1067	0	0	904	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.1	19.2	19.2	26.2	18.4	18.1	20.3	0.0	0.0	19.9	0.0	0.0
Incr Delay (d2), s/veh	1.4	2.5	2.5	3.4	1.2	2.3	4.3	0.0	0.0	3.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	2.6	2.4	2.6	2.2	4.8	0.0	0.0	3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	21.7	21.8	29.5	19.6	20.4	24.6	0.0	0.0	23.8	0.0	0.0
LnGrp LOS	C	C	C	C	B	C	C	A	A	C	A	A
Approach Vol, veh/h		541			849			348			266	
Approach Delay, s/veh		22.8			21.8			24.6			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	25.2		25.9	12.3	26.4		25.9				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.6	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	9.3	9.0		13.7	5.5	9.4		13.6				
Green Ext Time (p_c), s	0.4	5.7		5.2	0.2	10.0		4.0				

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

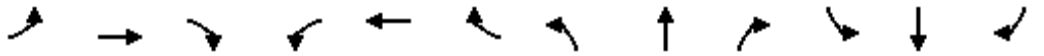
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	29	0	5	0
Future Vol, veh/h	0	16	29	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	30	54	0	9	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	54	0	-	0	84	54
Stage 1	-	-	-	-	54	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1385	-	-	-	851	937
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	923	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1385	-	-	-	851	937
Mov Cap-2 Maneuver	-	-	-	-	851	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	923	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1385	-	-	-	851
HCM Lane V/C Ratio	-	-	-	-	0.011
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	430	8	8	796	236	9	11	8	84	4	72
Future Volume (veh/h)	188	430	8	8	796	236	9	11	8	84	4	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
Adj Flow Rate, veh/h	209	478	9	9	884	262	10	12	9	93	4	80
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	255	1672	31	17	1191	531	19	66	50	115	9	183
Arrive On Green	0.17	0.55	0.55	0.01	0.39	0.39	0.01	0.08	0.08	0.08	0.14	0.14
Sat Flow, veh/h	1514	3033	57	1514	3021	1347	1514	843	633	1514	65	1293
Grp Volume(v), veh/h	209	238	249	9	884	262	10	0	21	93	0	84
Grp Sat Flow(s),veh/h/ln	1514	1510	1580	1514	1510	1347	1514	0	1476	1514	0	1357
Q Serve(g_s), s	8.5	5.3	5.3	0.4	15.9	9.3	0.4	0.0	0.8	3.8	0.0	3.6
Cycle Q Clear(g_c), s	8.5	5.3	5.3	0.4	15.9	9.3	0.4	0.0	0.8	3.8	0.0	3.6
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.43	1.00		0.95
Lane Grp Cap(c), veh/h	255	832	871	17	1191	531	19	0	116	115	0	192
V/C Ratio(X)	0.82	0.29	0.29	0.51	0.74	0.49	0.52	0.00	0.18	0.81	0.00	0.44
Avail Cap(c_a), veh/h	369	1199	1254	369	2398	1070	369	0	476	369	0	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.5	7.6	7.6	31.3	16.5	14.5	31.2	0.0	27.4	28.9	0.0	25.0
Incr Delay (d2), s/veh	9.3	0.2	0.2	21.4	0.9	0.7	19.9	0.0	0.7	12.6	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.1	1.2	0.2	4.3	2.6	0.3	0.0	0.3	1.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	7.8	7.8	52.7	17.4	15.2	51.1	0.0	28.1	41.6	0.0	26.5
LnGrp LOS	C	A	A	D	B	B	D	A	C	D	A	C
Approach Vol, veh/h		696			1155			31			177	
Approach Delay, s/veh		15.9			17.2			35.6			34.4	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	39.6	5.3	13.5	15.2	29.6	9.3	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.4	7.3	2.4	5.6	10.5	17.9	5.8	2.8
Green Ext Time (p_c), s	0.0	2.6	0.0	0.3	0.2	7.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	79	47	74	116	14	25	33	33	10	62	8
Future Vol, veh/h	5	79	47	74	116	14	25	33	33	10	62	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	110	65	103	161	19	35	46	46	14	86	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	11.1	9.4	9.4
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	4%	36%	12%
Vol Thru, %	36%	60%	57%	78%
Vol Right, %	36%	36%	7%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	131	204	80
LT Vol	25	5	74	10
Through Vol	33	79	116	62
RT Vol	33	47	14	8
Lane Flow Rate	126	182	283	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.181	0.242	0.386	0.163
Departure Headway (Hd)	5.149	4.796	4.9	5.297
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	690	742	728	670
Service Time	3.234	2.872	2.967	3.385
HCM Lane V/C Ratio	0.183	0.245	0.389	0.166
HCM Control Delay	9.4	9.4	11.1	9.4
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.7	0.9	1.8	0.6

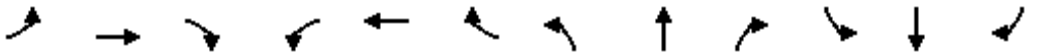
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	16	0	0	0	23	111	0	0	220	0
Future Vol, veh/h	3	0	16	0	0	0	23	111	0	0	220	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	5	0	25	0	0	0	35	171	0	0	338	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	579	579	338	592	579	171	338	0	0	171	0	0
Stage 1	338	338	-	241	241	-	-	-	-	-	-	-
Stage 2	241	241	-	351	338	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	418	418	691	409	418	857	1188	-	-	1371	-	-
Stage 1	664	630	-	749	695	-	-	-	-	-	-	-
Stage 2	749	695	-	653	630	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	408	404	691	384	404	857	1188	-	-	1371	-	-
Mov Cap-2 Maneuver	408	404	-	384	404	-	-	-	-	-	-	-
Stage 1	642	630	-	724	672	-	-	-	-	-	-	-
Stage 2	724	672	-	630	630	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	0	1.4	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1188	-	-	623	-	1371	-	-
HCM Lane V/C Ratio	0.03	-	-	0.047	-	-	-	-
HCM Control Delay (s)	8.1	0	-	11.1	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Future Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	114	909	406	170	1021	455	463	1102	492	122	424	189
Arrive On Green	0.07	0.26	0.26	0.10	0.29	0.29	0.27	0.32	0.32	0.07	0.12	0.12
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.6	5.9	7.9	5.3	14.1	3.8	16.9	4.9	2.5	3.8	5.1	2.0
Cycle Q Clear(g_c), s	3.6	5.9	7.9	5.3	14.1	3.8	16.9	4.9	2.5	3.8	5.1	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	909	406	170	1021	455	463	1102	492	122	424	189
V/C Ratio(X)	0.77	0.39	0.50	0.78	0.74	0.24	0.92	0.29	0.15	0.77	0.62	0.25
Avail Cap(c_a), veh/h	378	1871	834	378	1871	834	475	1385	618	475	1385	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	21.6	22.4	31.5	22.8	19.1	25.4	18.3	17.5	32.6	29.8	28.4
Incr Delay (d2), s/veh	10.5	0.3	0.9	7.7	1.1	0.3	22.3	0.1	0.1	9.6	1.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.1	2.7	2.4	5.0	1.2	9.0	1.8	0.8	1.8	2.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	21.9	23.3	39.1	23.8	19.4	47.7	18.4	17.6	42.2	31.3	29.1
LnGrp LOS	D	C	C	D	C	B	D	B	B	D	C	C
Approach Vol, veh/h		642			999			818			405	
Approach Delay, s/veh		25.3			25.4			33.5			33.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	23.2	23.5	13.2	9.2	25.5	9.5	27.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	7.3	9.9	18.9	7.1	5.6	16.1	5.8	6.9
Green Ext Time (p_c), s	0.2	2.7	0.1	1.6	0.1	4.9	0.2	2.0

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	73.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	3	31	143	24	137	64	594	76	90	480	30
Future Vol, veh/h	8	3	31	143	24	137	64	594	76	90	480	30
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	10	4	40	183	31	176	82	762	97	115	615	38
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	16.7	26	109.5	58.3
HCM LOS	C	D	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	19%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	72%	7%	0%	15%	0%	100%	84%
Vol Right, %	0%	0%	28%	74%	0%	85%	0%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	396	274	42	143	161	90	320	190
LT Vol	64	0	0	8	143	0	90	0	0
Through Vol	0	396	198	3	0	24	0	320	160
RT Vol	0	0	76	31	0	137	0	0	30
Lane Flow Rate	82	508	351	54	183	206	115	410	244
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.217	1.27	0.86	0.167	0.55	0.557	0.309	1.04	0.61
Departure Headway (Hd)	9.817	9.298	9.097	11.699	11.376	10.254	10.143	9.624	9.51
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	368	396	400	309	319	355	357	382	382
Service Time	7.517	6.998	6.797	9.399	9.076	7.954	7.843	7.324	7.21
HCM Lane V/C Ratio	0.223	1.283	0.877	0.175	0.574	0.58	0.322	1.073	0.639
HCM Control Delay	15.2	167.6	47.5	16.7	27.1	25.1	17.3	89	26
HCM Lane LOS	C	F	E	C	D	D	C	F	D
HCM 95th-tile Q	0.8	21.6	8.4	0.6	3.1	3.2	1.3	13	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	4	52	219	31	7	187	655	65	3	517	124
Future Volume (veh/h)	52	4	52	219	31	7	187	655	65	3	517	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	63	5	63	264	37	8	225	789	78	4	623	149
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	96	156	132	322	394	334	279	1472	657	9	934	417
Arrive On Green	0.05	0.08	0.08	0.18	0.21	0.21	0.16	0.42	0.42	0.01	0.27	0.27
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	63	5	63	264	37	8	225	789	78	4	623	149
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	2.1	0.1	2.3	8.5	1.0	0.2	7.3	10.0	1.8	0.1	9.4	4.6
Cycle Q Clear(g_c), s	2.1	0.1	2.3	8.5	1.0	0.2	7.3	10.0	1.8	0.1	9.4	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	156	132	322	394	334	279	1472	657	9	934	417
V/C Ratio(X)	0.66	0.03	0.48	0.82	0.09	0.02	0.81	0.54	0.12	0.42	0.67	0.36
Avail Cap(c_a), veh/h	187	1080	915	526	1435	1216	467	2650	1182	149	2016	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	24.8	25.7	23.1	18.6	18.3	23.9	12.8	10.4	29.2	19.3	17.5
Incr Delay (d2), s/veh	7.5	0.1	2.6	5.2	0.1	0.0	5.5	0.3	0.1	27.5	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	0.9	3.7	0.4	0.1	3.1	3.2	0.5	0.1	3.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	24.9	28.4	28.3	18.7	18.3	29.4	13.1	10.5	56.7	20.1	18.0
LnGrp LOS	C	C	C	C	B	B	C	B	B	E	C	B
Approach Vol, veh/h		131			309			1092			776	
Approach Delay, s/veh		31.4			26.9			16.3			19.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	9.5	13.9	20.3	7.7	17.1	4.8	29.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	0.5	4.3	9.3	11.4	4.1	3.0	2.1	12.0
Green Ext Time (p_c), s	0.5	0.2	0.3	4.4	0.0	0.2	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	210	184	84	382	125	223	784	103	83	621	136
Future Volume (veh/h)	62	210	184	84	382	125	223	784	103	83	621	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	75	253	222	101	460	151	269	945	124	100	748	164
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	95	608	513	125	1241	554	288	1230	548	124	902	402
Arrive On Green	0.05	0.34	0.34	0.07	0.36	0.36	0.17	0.35	0.35	0.07	0.26	0.26
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	75	246	229	101	460	151	269	945	124	100	748	164
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	4.8	12.1	12.7	6.4	10.9	7.7	17.0	27.0	6.3	6.3	22.7	9.8
Cycle Q Clear(g_c), s	4.8	12.1	12.7	6.4	10.9	7.7	17.0	27.0	6.3	6.3	22.7	9.8
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	591	530	125	1241	554	288	1230	548	124	902	402
V/C Ratio(X)	0.79	0.42	0.43	0.81	0.37	0.27	0.93	0.77	0.23	0.80	0.83	0.41
Avail Cap(c_a), veh/h	142	591	530	133	1241	554	288	1397	623	165	1151	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	28.2	28.4	51.0	26.5	25.5	45.9	31.9	25.3	51.0	38.9	34.1
Incr Delay (d2), s/veh	15.6	2.2	2.6	28.5	0.9	1.2	35.5	2.3	0.2	18.6	4.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.1	4.8	3.6	4.4	3.0	10.0	11.2	2.3	3.3	9.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	30.4	31.0	79.5	27.4	26.7	81.4	34.3	25.5	69.6	43.1	34.8
LnGrp LOS	E	C	C	E	C	C	F	C	C	E	D	C
Approach Vol, veh/h		550			712			1338			1012	
Approach Delay, s/veh		35.7			34.6			42.9			44.3	
Approach LOS		D			C			D			D	

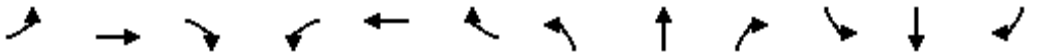
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	42.5	23.0	33.5	10.6	44.4	12.5	44.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	9.4	14.7	19.0	24.7	6.8	12.9	8.3	29.0
Green Ext Time (p_c), s	0.0	2.5	0.0	4.3	0.0	3.1	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	79	64	1055	39	30	588
Future Volume (veh/h)	79	64	1055	39	30	588
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	100	81	1335	49	38	744
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1678	62	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3476	124	1725	3532
Grp Volume(v), veh/h	100	81	678	706	38	744
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1789	1725	1721
Q Serve(g_s), s	5.8	5.2	39.3	39.5	2.2	9.8
Cycle Q Clear(g_c), s	5.8	5.2	39.3	39.5	2.2	9.8
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	381	339	853	887	295	2423
V/C Ratio(X)	0.26	0.24	0.79	0.80	0.13	0.31
Avail Cap(c_a), veh/h	381	339	853	887	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	38.5	25.2	25.2	42.2	6.7
Incr Delay (d2), s/veh	1.7	1.7	5.2	5.1	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.0	16.8	17.5	1.0	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.3	40.1	30.4	30.3	43.1	7.0
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	181		1384			782
Approach Delay, s/veh	40.2		30.4			8.8
Approach LOS	D		C			A

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	89.0	31.0	25.0	64.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	84.5	26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s	11.8	7.8	4.2	41.5
Green Ext Time (p_c), s	6.4	0.5	0.0	9.5

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	472	19	94	938	53	56	13	88	55	24	14
Future Volume (veh/h)	7	472	19	94	938	53	56	13	88	55	24	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	536	22	107	1066	58	64	14	100	60	26	15
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	1497	61	141	1445	79	156	26	187	77	98	56
Arrive On Green	0.09	0.43	0.43	0.08	0.42	0.42	0.09	0.13	0.13	0.04	0.09	0.09
Sat Flow, veh/h	1781	3479	143	1781	3427	186	1781	198	1417	1781	1113	642
Grp Volume(v), veh/h	8	273	285	107	553	571	64	0	114	60	0	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1845	1781	1777	1837	1781	0	1615	1781	0	1755
Q Serve(g_s), s	0.2	5.9	5.9	3.4	14.9	14.9	1.9	0.0	3.8	1.9	0.0	1.2
Cycle Q Clear(g_c), s	0.2	5.9	5.9	3.4	14.9	14.9	1.9	0.0	3.8	1.9	0.0	1.2
Prop In Lane	1.00		0.08	1.00		0.10	1.00		0.88	1.00		0.37
Lane Grp Cap(c), veh/h	156	765	794	141	749	775	156	0	214	77	0	154
V/C Ratio(X)	0.05	0.36	0.36	0.76	0.74	0.74	0.41	0.00	0.53	0.78	0.00	0.27
Avail Cap(c_a), veh/h	565	1510	1568	515	1460	1510	578	0	750	328	0	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	10.9	10.9	25.8	13.8	13.9	24.6	0.0	23.1	27.0	0.0	24.3
Incr Delay (d2), s/veh	0.1	0.3	0.3	8.2	1.4	1.4	1.7	0.0	2.1	15.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.7	1.8	1.5	4.4	4.6	0.8	0.0	1.5	1.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	11.2	11.2	33.9	15.3	15.2	26.4	0.0	25.2	42.8	0.0	25.2
LnGrp LOS	C	B	B	C	B	B	C	A	C	D	A	C
Approach Vol, veh/h		566			1231			178			101	
Approach Delay, s/veh		11.4			16.9			25.6			35.7	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	29.1	9.5	9.5	9.5	28.6	7.0	12.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	48.5	18.5	18.5	18.1	46.9	10.5	26.5
Max Q Clear Time (g_c+I1), s	5.4	7.9	3.9	3.2	2.2	16.9	3.9	5.8
Green Ext Time (p_c), s	0.2	3.0	0.1	0.1	0.0	7.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	124	8	69	241	10	14	20	59	29	15	18
Future Vol, veh/h	12	124	8	69	241	10	14	20	59	29	15	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	16	168	11	93	326	14	19	27	80	39	20	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	340	0	0	179	0	0	747	732	174	778	730	333
Stage 1	-	-	-	-	-	-	206	206	-	519	519	-
Stage 2	-	-	-	-	-	-	541	526	-	259	211	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1225	-	-	1403	-	-	330	349	872	315	350	711
Stage 1	-	-	-	-	-	-	798	733	-	542	534	-
Stage 2	-	-	-	-	-	-	527	530	-	748	730	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1225	-	-	1403	-	-	285	322	872	252	323	711
Mov Cap-2 Maneuver	-	-	-	-	-	-	285	322	-	252	323	-
Stage 1	-	-	-	-	-	-	788	723	-	535	499	-
Stage 2	-	-	-	-	-	-	456	495	-	646	721	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.7	13.1	19.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	285	609	1225	-	-	1403	-	-	332
HCM Lane V/C Ratio	0.066	0.175	0.013	-	-	0.066	-	-	0.252
HCM Control Delay (s)	18.5	12.2	8	-	-	7.7	-	-	19.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0.6	0	-	-	0.2	-	-	1

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	87	25	61	140	1	45	1	37	0	0	0
Future Vol, veh/h	0	87	25	61	140	1	45	1	37	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	104	30	73	167	1	54	1	44	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	134	0	0	433	433	119	456	448	168
Stage 1	-	-	-	-	-	-	119	119	-	314	314	-
Stage 2	-	-	-	-	-	-	314	314	-	142	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1410	-	-	1451	-	-	533	516	933	515	506	876
Stage 1	-	-	-	-	-	-	885	797	-	697	656	-
Stage 2	-	-	-	-	-	-	697	656	-	861	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1410	-	-	1451	-	-	511	488	933	469	478	876
Mov Cap-2 Maneuver	-	-	-	-	-	-	511	488	-	469	478	-
Stage 1	-	-	-	-	-	-	885	797	-	697	620	-
Stage 2	-	-	-	-	-	-	659	620	-	819	785	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	11.6	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	640	1410	-	-	1451	-	-	-
HCM Lane V/C Ratio	0.154	-	-	-	0.05	-	-	-
HCM Control Delay (s)	11.6	0	-	-	7.6	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	-

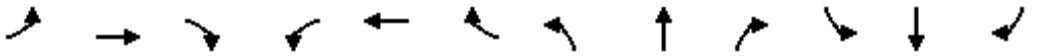
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	23	0	11	0	65	8	4	84	0
Future Vol, veh/h	0	0	0	23	0	11	0	65	8	4	84	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	29	0	14	0	81	10	5	105	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	208	206	105	201	201	86	105	0	0	91	0	0
Stage 1	115	115	-	86	86	-	-	-	-	-	-	-
Stage 2	93	91	-	115	115	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	747	689	947	755	693	970	1480	-	-	1498	-	-
Stage 1	887	798	-	919	822	-	-	-	-	-	-	-
Stage 2	912	818	-	887	798	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	734	686	947	753	690	970	1480	-	-	1498	-	-
Mov Cap-2 Maneuver	734	686	-	753	690	-	-	-	-	-	-	-
Stage 1	887	795	-	919	822	-	-	-	-	-	-	-
Stage 2	899	818	-	883	795	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.7	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	-	812	1498	-	-
HCM Lane V/C Ratio	-	-	-	-	0.052	0.003	-	-
HCM Control Delay (s)	0	-	-	0	9.7	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Future Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
Arrive On Green	0.11	0.34	0.34	0.15	0.38	0.38	0.06	0.24	0.24	0.11	0.29	0.29
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	12.0	25.6	10.8	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	12.0
Cycle Q Clear(g_c), s	12.0	25.6	10.8	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
V/C Ratio(X)	1.06	0.75	0.37	0.95	1.32	0.50	2.15	0.89	0.52	1.57	0.50	0.45
Avail Cap(c_a), veh/h	189	638	541	260	713	604	113	562	476	203	1247	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	33.0	28.1	47.9	35.0	26.8	53.0	41.5	37.3	50.1	33.3	32.8
Incr Delay (d2), s/veh	81.7	7.9	1.9	42.3	152.1	3.0	546.4	13.3	1.1	276.9	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	12.1	4.2	9.6	47.9	6.5	20.3	11.9	4.7	21.2	5.6	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	132.3	40.8	30.0	90.2	187.1	29.8	599.4	54.8	38.4	327.0	33.7	33.4
LnGrp LOS	F	D	C	F	F	C	F	D	D	F	C	C
Approach Vol, veh/h		878			1489			837			1035	
Approach Delay, s/veh		59.2			138.9			209.7			123.7	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	37.3	16.5	47.6	17.4	31.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	17.6	27.6	9.2	15.5	14.0	45.1	14.9	25.2
Green Ext Time (p_c), s	0.0	2.5	0.0	3.8	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	132.7
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Future Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	143	322	294	226	64	201	490	140	56	742	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	157	354	322	606	171	215	595	504	72	759	92
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	511	1152	1781	1402	397	1781	1870	1585	1781	3191	387
Grp Volume(v), veh/h	79	0	465	294	0	290	201	490	140	56	413	419
Grp Sat Flow(s),veh/h/ln	1781	0	1663	1781	0	1799	1781	1870	1585	1781	1777	1801
Q Serve(g_s), s	5.2	0.0	31.6	19.1	0.0	12.8	13.2	28.5	7.8	3.7	27.2	27.2
Cycle Q Clear(g_c), s	5.2	0.0	31.6	19.1	0.0	12.8	13.2	28.5	7.8	3.7	27.2	27.2
Prop In Lane	1.00		0.69	1.00		0.22	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	101	0	512	322	0	777	215	595	504	72	423	428
V/C Ratio(X)	0.79	0.00	0.91	0.91	0.00	0.37	0.94	0.82	0.28	0.78	0.98	0.98
Avail Cap(c_a), veh/h	156	0	512	357	0	777	215	595	504	86	423	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	0.0	39.2	47.3	0.0	22.6	51.3	37.1	30.0	55.9	44.5	44.5
Incr Delay (d2), s/veh	13.1	0.0	22.6	25.6	0.0	1.4	43.5	12.2	1.4	30.2	38.4	38.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	15.5	10.5	0.0	5.5	8.3	14.5	3.1	2.2	16.0	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	0.0	61.8	72.9	0.0	24.0	94.8	49.3	31.4	86.1	82.9	82.8
LnGrp LOS	E	A	E	E	A	C	F	D	C	F	F	F
Approach Vol, veh/h		544			584			831			888	
Approach Delay, s/veh		62.7			48.6			57.3			83.1	
Approach LOS		E			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	40.7	18.7	32.5	11.1	55.3	9.3	41.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	11.1	33.6	15.2	29.2	7.2	14.8	5.7	30.5
Green Ext Time (p_c), s	0.2	0.7	0.0	0.0	0.0	1.6	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	64.6
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	257	45	168	311	170	227	527	162	339	794	101
Future Volume (veh/h)	51	257	45	168	311	170	227	527	162	339	794	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	299	52	195	362	198	264	613	188	394	923	117
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	988	441	220	1276	569	291	801	357	423	1064	475
Arrive On Green	0.04	0.28	0.28	0.12	0.36	0.36	0.16	0.23	0.23	0.24	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	59	299	52	195	362	198	264	613	188	394	923	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.4	8.8	3.3	14.3	9.7	12.2	19.4	21.5	13.9	28.8	32.7	7.4
Cycle Q Clear(g_c), s	4.4	8.8	3.3	14.3	9.7	12.2	19.4	21.5	13.9	28.8	32.7	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	988	441	220	1276	569	291	801	357	423	1064	475
V/C Ratio(X)	0.78	0.30	0.12	0.88	0.28	0.35	0.91	0.77	0.53	0.93	0.87	0.25
Avail Cap(c_a), veh/h	171	988	441	261	1276	569	373	961	429	529	1271	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	37.9	35.9	57.4	30.4	31.2	54.7	48.3	45.3	49.7	44.1	35.3
Incr Delay (d2), s/veh	15.3	0.8	0.5	25.4	0.6	1.7	21.4	3.1	1.2	20.6	5.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.8	1.3	7.8	4.1	4.8	10.2	9.6	5.5	14.9	14.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.4	38.7	36.4	82.8	31.0	32.9	76.0	51.3	46.5	70.3	49.9	35.5
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	D	D
Approach Vol, veh/h		410			755			1065			1434	
Approach Delay, s/veh		44.1			44.9			56.6			54.3	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	41.5	26.3	44.3	10.2	52.3	36.1	34.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	37.0	27.9	47.6	12.8	43.7	39.5	36.0
Max Q Clear Time (g_c+I1), s	16.3	10.8	21.4	34.7	6.4	14.2	30.8	23.5
Green Ext Time (p_c), s	0.1	1.8	0.4	5.1	0.0	2.7	0.8	3.6

Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

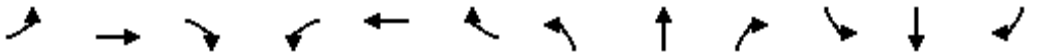
Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	5	101	10	3	196
Future Vol, veh/h	24	5	101	10	3	196
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	37	8	155	15	5	302

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	475	163	0	0	170	0
Stage 1	163	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	538	866	-	-	1372	-
Stage 1	852	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	536	866	-	-	1372	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	726	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	574	1372	-
HCM Lane V/C Ratio	-	-	0.078	0.003	-
HCM Control Delay (s)	-	-	11.8	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	853	4	83	871	0	14	0	44	0	0	0
Future Volume (veh/h)	40	853	4	83	871	0	14	0	44	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	927	4	90	947	0	15	0	48			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	388	1997	9	113	2317	0	74	0	238			
Arrive On Green	0.60	0.60	0.60	0.07	0.71	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	545	3341	14	1640	3358	0	357	0	1142			
Grp Volume(v), veh/h	43	454	477	90	947	0	63	0	0			
Grp Sat Flow(s),veh/h/ln	545	1636	1720	1640	1636	0	1499	0	0			
Q Serve(g_s), s	3.8	16.7	16.7	5.8	12.8	0.0	3.7	0.0	0.0			
Cycle Q Clear(g_c), s	4.7	16.7	16.7	5.8	12.8	0.0	3.7	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.24		0.76			
Lane Grp Cap(c), veh/h	388	978	1028	113	2317	0	312	0	0			
V/C Ratio(X)	0.11	0.46	0.46	0.80	0.41	0.00	0.20	0.00	0.00			
Avail Cap(c_a), veh/h	388	978	1028	296	2683	0	312	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.9	12.1	12.1	49.5	6.5	0.0	35.3	0.0	0.0			
Incr Delay (d2), s/veh	0.6	1.6	1.5	12.0	0.1	0.0	1.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.5	5.7	2.6	3.2	0.0	1.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	13.7	13.6	61.5	6.6	0.0	36.7	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		974			1037			63				
Approach Delay, s/veh		13.5			11.4			36.7				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.9	69.0				80.9		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	7.8	18.7				14.8		5.7				
Green Ext Time (p_c), s	0.1	6.5				7.0		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	62	17	88	60	109	43	765	102	125	516	0
Future Volume (veh/h)	3	62	17	88	60	109	43	765	102	125	516	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	3	70	19	100	68	124	49	869	116	142	586	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	77	338	89	198	114	160	85	1304	581	186	1505	0
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.38	0.38	0.11	0.44	0.00
Sat Flow, veh/h	15	1364	359	413	460	644	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	92	0	0	292	0	0	49	869	116	142	586	0
Grp Sat Flow(s),veh/h/ln	1738	0	0	1517	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	6.7	0.0	0.0	1.4	10.7	2.6	4.1	5.9	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	9.0	0.0	0.0	1.4	10.7	2.6	4.1	5.9	0.0
Prop In Lane	0.03		0.21	0.34		0.42	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	504	0	0	471	0	0	85	1304	581	186	1505	0
V/C Ratio(X)	0.18	0.00	0.00	0.62	0.00	0.00	0.58	0.67	0.20	0.77	0.39	0.00
Avail Cap(c_a), veh/h	974	0	0	876	0	0	560	4166	1858	628	4301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.2	0.0	0.0	17.6	0.0	0.0	23.6	13.1	10.6	22.0	9.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.3	0.0	0.0	6.1	0.6	0.2	6.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	3.0	0.0	0.0	0.6	2.9	0.6	1.7	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	0.0	0.0	19.0	0.0	0.0	29.7	13.7	10.8	28.5	9.9	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	A	A
Approach Vol, veh/h		92			292			1034			728	
Approach Delay, s/veh		15.3			19.0			14.1			13.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	17.1	7.0	26.7	17.1	10.0	23.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	16.5	63.5	26.5	18.5	61.5
Max Q Clear Time (g_c+I1), s	4.1	3.4	7.9	11.0	6.1	12.7
Green Ext Time (p_c), s	0.4	0.1	3.7	1.6	0.2	6.6

Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	493	121	304	486	137	210	695	239	110	450	270
Future Volume (veh/h)	285	493	121	304	486	137	210	695	239	110	450	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	297	514	126	317	506	143	219	724	249	115	469	281
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	328	703	313	347	741	331	248	1079	481	140	519	310
Arrive On Green	0.20	0.21	0.21	0.21	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	297	514	126	317	506	143	219	724	249	115	389	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	19.0	15.7	8.0	20.3	15.2	9.1	14.1	20.5	14.9	7.4	24.7	24.9
Cycle Q Clear(g_c), s	19.0	15.7	8.0	20.3	15.2	9.1	14.1	20.5	14.9	7.4	24.7	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	328	703	313	347	741	331	248	1079	481	140	431	398
V/C Ratio(X)	0.91	0.73	0.40	0.91	0.68	0.43	0.88	0.67	0.52	0.82	0.90	0.91
Avail Cap(c_a), veh/h	419	703	313	419	741	331	319	1208	539	178	464	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	39.8	36.7	41.9	38.5	36.1	45.1	31.5	29.6	48.8	38.7	38.8
Incr Delay (d2), s/veh	19.6	6.6	3.8	21.7	5.0	4.1	20.0	1.3	0.9	20.9	19.8	22.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	6.6	3.0	9.9	6.3	3.4	6.8	7.7	5.0	3.7	11.6	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	46.4	40.5	63.6	43.6	40.2	65.1	32.7	30.4	69.7	58.5	60.8
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		937			966			1192			865	
Approach Delay, s/veh		50.6			49.7			38.2			60.9	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	27.6	20.8	32.8	26.0	28.9	13.7	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	22.3	17.7	16.1	26.9	21.0	17.2	9.4	22.5
Green Ext Time (p_c), s	0.4	1.6	0.2	1.4	0.5	1.7	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	48.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	2	161	39	0	13	95	969	28	5	911	50
Future Volume (veh/h)	108	2	161	39	0	13	95	969	28	5	911	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	110	2	164	40	0	13	97	989	29	5	930	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	116	1307	583	53	1183	528	121	1284	573	11	1064	475
Arrive On Green	0.07	0.40	0.40	0.03	0.00	0.36	0.07	0.39	0.39	0.01	0.33	0.33
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	110	2	164	40	0	13	97	989	29	5	930	51
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	7.1	0.0	8.1	2.6	0.0	0.6	6.2	28.0	1.3	0.3	28.5	2.6
Cycle Q Clear(g_c), s	7.1	0.0	8.1	2.6	0.0	0.6	6.2	28.0	1.3	0.3	28.5	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1307	583	53	1183	528	121	1284	573	11	1064	475
V/C Ratio(X)	0.95	0.00	0.28	0.75	0.00	0.02	0.80	0.77	0.05	0.47	0.87	0.11
Avail Cap(c_a), veh/h	116	1307	583	100	1183	528	239	1521	679	100	1245	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	19.2	21.6	51.1	0.0	21.9	48.6	28.2	20.1	52.7	33.9	25.1
Incr Delay (d2), s/veh	68.5	0.0	1.2	18.6	0.0	0.1	11.7	2.1	0.0	29.3	6.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	2.7	1.3	0.0	0.2	2.8	10.2	0.4	0.2	11.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.8	19.2	22.8	69.7	0.0	22.0	60.2	30.2	20.1	82.0	40.2	25.2
LnGrp LOS	F	B	C	E	A	C	E	C	C	F	D	C
Approach Vol, veh/h		276			53			1115			986	
Approach Delay, s/veh		60.7			58.0			32.6			39.6	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	47.0	12.3	39.1	12.0	43.0	5.2	46.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.6	10.1	8.2	30.5	9.1	2.6	2.3	30.0
Green Ext Time (p_c), s	0.0	0.5	0.1	4.1	0.0	0.0	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	943	3	1	1174	32
Future Volume (veh/h)	149	0	252	7	0	3	61	943	3	1	1174	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1164	4	1	1449	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	382	0	356	103	12	19	94	2029	7	2	1802	804
Arrive On Green	0.24	0.00	0.24	0.24	0.00	0.24	0.06	0.60	0.60	0.00	0.54	0.54
Sat Flow, veh/h	1323	0	1485	123	51	77	1668	3402	12	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	569	599	1	1449	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	251	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	16.7	0.2	0.0	0.0	3.7	17.4	17.4	0.0	29.4	1.1
Cycle Q Clear(g_c), s	11.2	0.0	16.7	16.9	0.0	0.0	3.7	17.4	17.4	0.0	29.4	1.1
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	382	0	356	134	0	0	94	993	1044	2	1802	804
V/C Ratio(X)	0.48	0.00	0.87	0.10	0.00	0.00	0.80	0.57	0.57	0.44	0.80	0.05
Avail Cap(c_a), veh/h	439	0	420	182	0	0	100	1452	1527	211	3124	1394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	30.4	25.7	0.0	0.0	38.7	10.3	10.3	41.5	15.5	9.0
Incr Delay (d2), s/veh	0.9	0.0	16.2	0.3	0.0	0.0	33.3	0.5	0.5	95.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	7.4	0.2	0.0	0.0	2.3	4.7	5.0	0.1	8.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	0.0	46.6	26.1	0.0	0.0	72.1	10.8	10.8	137.0	16.3	9.0
LnGrp LOS	C	A	D	C	A	A	E	B	B	F	B	A
Approach Vol, veh/h		495			13			1243			1490	
Approach Delay, s/veh		40.1			26.1			14.5			16.2	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.4	9.2	49.5	24.4	4.6	54.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	5.0	78.0	23.5	10.5	72.5
Max Q Clear Time (g_c+I1), s	18.7	5.7	31.4	18.9	2.0	19.4
Green Ext Time (p_c), s	1.2	0.0	13.6	0.0	0.0	8.2

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	243	245	86	164	197	169	759	65	273	1003	110
Future Volume (veh/h)	105	243	245	86	164	197	169	759	65	273	1003	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	112	259	261	91	174	210	180	807	69	290	1067	117
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	130	1097	489	112	1061	473	203	920	410	312	1136	507
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.12	0.28	0.28	0.19	0.34	0.34
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	112	259	261	91	174	210	180	807	69	290	1067	117
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	8.5	7.3	18.4	6.9	4.8	14.4	13.6	29.7	4.5	22.0	39.9	7.2
Cycle Q Clear(g_c), s	8.5	7.3	18.4	6.9	4.8	14.4	13.6	29.7	4.5	22.0	39.9	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	1097	489	112	1061	473	203	920	410	312	1136	507
V/C Ratio(X)	0.86	0.24	0.53	0.82	0.16	0.44	0.89	0.88	0.17	0.93	0.94	0.23
Avail Cap(c_a), veh/h	130	1097	489	135	1061	473	209	960	428	313	1167	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	31.3	35.0	59.1	31.4	34.7	55.5	44.4	35.2	51.4	41.0	30.2
Incr Delay (d2), s/veh	40.8	0.5	4.1	26.4	0.3	3.0	32.8	9.0	0.2	33.2	14.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.9	6.9	3.7	1.9	5.4	7.4	12.9	1.6	11.6	17.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.3	31.8	39.1	85.5	31.8	37.7	88.3	53.4	35.4	84.6	54.9	30.4
LnGrp LOS	F	C	D	F	C	D	F	D	D	F	D	C
Approach Vol, veh/h		632			475			1056			1474	
Approach Delay, s/veh		46.8			44.7			58.2			58.8	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	46.8	20.1	48.3	14.5	45.4	28.5	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	40.5	16.1	45.0	10.0	40.9	24.1	37.0
Max Q Clear Time (g_c+I1), s	8.9	20.4	15.6	41.9	10.5	16.4	24.0	31.7
Green Ext Time (p_c), s	0.0	2.2	0.0	1.9	0.0	1.6	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

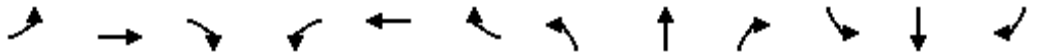
Intersection	
Int Delay, s/veh	12.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Future Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	2	26	8	5	5	27	256	21	2	212	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	28	0	0	294	161	15	298	172	8
Stage 1	-	-	-	-	-	-	135	135	-	24	24	-
Stage 2	-	-	-	-	-	-	159	26	-	274	148	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1584	-	-	1560	-	-	650	724	1053	646	714	1062
Stage 1	-	-	-	-	-	-	859	777	-	984	867	-
Stage 2	-	-	-	-	-	-	834	866	-	723	767	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1584	-	-	1560	-	-	452	692	1053	437	683	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	452	692	-	437	683	-
Stage 1	-	-	-	-	-	-	825	747	-	946	863	-
Stage 2	-	-	-	-	-	-	592	862	-	448	737	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5	3.3	14.6	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	676	1584	-	-	1560	-	-	737
HCM Lane V/C Ratio	0.45	0.038	-	-	0.005	-	-	0.37
HCM Control Delay (s)	14.6	7.4	0	-	7.3	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.3	0.1	-	-	0	-	-	1.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	688	35	34	610	155	45	64	32	209	71	205
Future Volume (veh/h)	108	688	35	34	610	155	45	64	32	209	71	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	114	724	37	36	642	163	47	67	34	220	75	216
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	150	1227	547	70	1067	476	170	207	80	502	120	345
Arrive On Green	0.09	0.36	0.36	0.04	0.31	0.31	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	207	711	274	1253	412	1186
Grp Volume(v), veh/h	114	724	37	36	642	163	148	0	0	220	0	291
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1192	0	0	1253	0	1598
Q Serve(g_s), s	2.8	7.4	0.7	0.9	6.8	3.5	0.3	0.0	0.0	0.6	0.0	6.8
Cycle Q Clear(g_c), s	2.8	7.4	0.7	0.9	6.8	3.5	7.2	0.0	0.0	7.7	0.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	0.32		0.23	1.00		0.74
Lane Grp Cap(c), veh/h	150	1227	547	70	1067	476	456	0	0	502	0	464
V/C Ratio(X)	0.76	0.59	0.07	0.51	0.60	0.34	0.32	0.00	0.00	0.44	0.00	0.63
Avail Cap(c_a), veh/h	1077	3144	1402	1077	3144	1402	1361	0	0	1297	0	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.3	11.3	9.2	20.3	12.6	11.5	12.0	0.0	0.0	13.7	0.0	13.3
Incr Delay (d2), s/veh	7.7	0.5	0.1	5.7	0.5	0.4	0.4	0.0	0.0	0.6	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.8	0.1	0.4	1.8	0.8	1.0	0.0	0.0	1.6	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	11.8	9.2	26.1	13.2	11.9	12.4	0.0	0.0	14.3	0.0	14.7
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		875			841			148			511	
Approach Delay, s/veh		13.7			13.5			12.4			14.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	19.9		17.1	8.3	17.9		17.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.9	9.4		9.7	4.8	8.8		9.2				
Green Ext Time (p_c), s	0.1	4.7		2.8	0.2	4.6		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		13.7	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	421	51	67	275	60	44	63	125	179	173	103
Future Volume (veh/h)	43	421	51	67	275	60	44	63	125	179	173	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	56	547	66	87	357	78	57	82	162	232	225	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	130	706	85	148	823	367	152	220	385	301	259	150
Arrive On Green	0.08	0.23	0.23	0.09	0.25	0.25	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1682	3017	363	1682	3357	1497	219	435	762	501	512	297
Grp Volume(v), veh/h	56	304	309	87	357	78	301	0	0	591	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1701	1682	1678	1497	1416	0	0	1310	0	0
Q Serve(g_s), s	3.3	17.6	17.7	5.2	9.4	4.3	0.0	0.0	0.0	30.5	0.0	0.0
Cycle Q Clear(g_c), s	3.3	17.6	17.7	5.2	9.4	4.3	12.6	0.0	0.0	43.1	0.0	0.0
Prop In Lane	1.00		0.21	1.00		1.00	0.19		0.54	0.39		0.23
Lane Grp Cap(c), veh/h	130	393	398	148	823	367	756	0	0	710	0	0
V/C Ratio(X)	0.43	0.77	0.78	0.59	0.43	0.21	0.40	0.00	0.00	0.83	0.00	0.00
Avail Cap(c_a), veh/h	174	475	482	186	973	434	870	0	0	820	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.9	37.3	37.4	45.7	33.2	31.3	15.7	0.0	0.0	24.1	0.0	0.0
Incr Delay (d2), s/veh	2.3	11.8	11.9	3.6	1.3	1.0	1.2	0.0	0.0	9.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	8.0	8.2	2.2	3.7	1.6	4.3	0.0	0.0	14.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	49.2	49.3	49.3	34.5	32.4	17.0	0.0	0.0	33.9	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		669			522			301			591	
Approach Delay, s/veh		49.2			36.7			17.0			33.9	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.2	31.4		59.6	12.0	32.6		59.6
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0
Max Q Clear Time (g_c+I1), s	7.3	19.7		14.6	5.3	11.4		45.1
Green Ext Time (p_c), s	0.1	4.6		5.5	0.0	5.0		7.5

Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

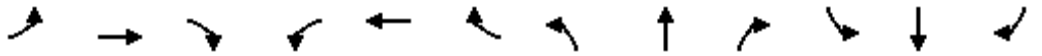
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	15	0	0	0
Future Vol, veh/h	0	23	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	52	34	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	86	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1591	-	-	-	920	1045
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	920	1045
Mov Cap-2 Maneuver	-	-	-	-	920	-
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	866	8	12	602	84	9	4	11	249	11	184
Future Volume (veh/h)	73	866	8	12	602	84	9	4	11	249	11	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
Adj Flow Rate, veh/h	77	912	8	13	634	88	9	4	12	262	12	194
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	93	1189	10	25	1034	461	18	30	90	307	22	354
Arrive On Green	0.06	0.39	0.39	0.02	0.34	0.34	0.01	0.09	0.09	0.20	0.28	0.28
Sat Flow, veh/h	1514	3069	27	1514	3021	1347	1514	350	1051	1514	79	1280
Grp Volume(v), veh/h	77	449	471	13	634	88	9	0	16	262	0	206
Grp Sat Flow(s),veh/h/ln	1514	1510	1585	1514	1510	1347	1514	0	1401	1514	0	1360
Q Serve(g_s), s	2.9	15.1	15.1	0.5	10.2	2.7	0.3	0.0	0.6	9.8	0.0	7.6
Cycle Q Clear(g_c), s	2.9	15.1	15.1	0.5	10.2	2.7	0.3	0.0	0.6	9.8	0.0	7.6
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.75	1.00		0.94
Lane Grp Cap(c), veh/h	93	585	614	25	1034	461	18	0	120	307	0	376
V/C Ratio(X)	0.83	0.77	0.77	0.53	0.61	0.19	0.51	0.00	0.13	0.85	0.00	0.55
Avail Cap(c_a), veh/h	401	1305	1369	401	2609	1164	401	0	491	401	0	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	15.6	15.6	28.5	16.0	13.5	28.7	0.0	24.7	22.5	0.0	18.0
Incr Delay (d2), s/veh	16.5	2.1	2.0	16.4	0.6	0.2	21.1	0.0	0.5	12.9	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.1	4.3	0.3	2.8	0.8	0.2	0.0	0.2	4.3	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	17.7	17.7	44.9	16.6	13.7	49.8	0.0	25.2	35.4	0.0	19.3
LnGrp LOS	D	B	B	D	B	B	D	A	C	D	A	B
Approach Vol, veh/h		997			735			25			468	
Approach Delay, s/veh		19.7			16.8			34.1			28.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	27.2	5.2	20.7	8.1	24.5	16.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.5	17.1	2.3	9.6	4.9	12.2	11.8	2.6
Green Ext Time (p_c), s	0.0	5.5	0.0	0.9	0.1	4.3	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	147	37	35	27	5	30	90	85	10	39	7
Future Vol, veh/h	9	147	37	35	27	5	30	90	85	10	39	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	193	49	46	36	7	39	118	112	13	51	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	9	10.3	8.8
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	5%	52%	18%
Vol Thru, %	44%	76%	40%	70%
Vol Right, %	41%	19%	7%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	193	67	56
LT Vol	30	9	35	10
Through Vol	90	147	27	39
RT Vol	85	37	5	7
Lane Flow Rate	270	254	88	74
Geometry Grp	1	1	1	1
Degree of Util (X)	0.351	0.339	0.127	0.105
Departure Headway (Hd)	4.68	4.799	5.177	5.108
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	763	744	686	695
Service Time	2.744	2.866	3.259	3.191
HCM Lane V/C Ratio	0.354	0.341	0.128	0.106
HCM Control Delay	10.3	10.3	9	8.8
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.6	1.5	0.4	0.4

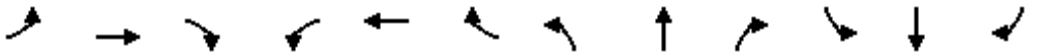
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	23	0	0	0	15	217	0	0	140	0
Future Vol, veh/h	0	0	23	0	0	0	15	217	0	0	140	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	26	0	0	0	17	241	0	0	156	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	431	431	156	444	431	241	156	0	0	241	0	0
Stage 1	156	156	-	275	275	-	-	-	-	-	-	-
Stage 2	275	275	-	169	156	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	523	507	872	512	507	781	1382	-	-	1286	-	-
Stage 1	830	755	-	716	670	-	-	-	-	-	-	-
Stage 2	716	670	-	817	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	517	500	872	492	500	781	1382	-	-	1286	-	-
Mov Cap-2 Maneuver	517	500	-	492	500	-	-	-	-	-	-	-
Stage 1	818	755	-	706	661	-	-	-	-	-	-	-
Stage 2	706	661	-	793	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	0	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	872	-	1286	-	-
HCM Lane V/C Ratio	0.012	-	-	0.029	-	-	-	-
HCM Control Delay (s)	7.6	0	-	9.3	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Future Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1081	482	231	1176	525	281	677	302	267	649	290
Arrive On Green	0.10	0.31	0.31	0.13	0.33	0.33	0.16	0.19	0.19	0.15	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.6	15.7	17.4	8.6	8.5	9.8	10.7	10.0	9.4	10.1	10.4	2.6
Cycle Q Clear(g_c), s	6.6	15.7	17.4	8.6	8.5	9.8	10.7	10.0	9.4	10.1	10.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1081	482	231	1176	525	281	677	302	267	649	290
V/C Ratio(X)	0.80	0.71	0.77	0.83	0.40	0.46	0.85	0.69	0.65	0.84	0.73	0.20
Avail Cap(c_a), veh/h	334	1657	739	334	1657	739	421	1227	547	421	1227	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	25.1	25.7	34.7	21.0	21.5	33.5	30.8	30.5	33.8	31.5	28.3
Incr Delay (d2), s/veh	7.8	0.9	2.6	10.8	0.2	0.6	9.9	1.2	2.3	8.4	1.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.8	6.2	4.1	3.1	3.4	5.1	4.1	3.5	4.7	4.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	26.0	28.3	45.5	21.2	22.1	43.4	32.0	32.8	42.2	33.1	28.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1277			906			897			756	
Approach Delay, s/veh		28.7			26.6			35.2			35.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	29.6	17.5	19.6	13.0	31.8	16.9	20.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.6	19.4	12.7	12.4	8.6	11.8	12.1	12.0
Green Ext Time (p_c), s	0.2	5.7	0.4	2.7	0.2	3.6	0.3	3.1

Intersection Summary	
HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	278.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	42	95	71	3	112	48	667	105	147	847	7
Future Vol, veh/h	69	42	95	71	3	112	48	667	105	147	847	7
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	92	56	127	95	4	149	64	889	140	196	1129	9
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	86.3	31.4	283	359.7
HCM LOS	F	D	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	33%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	68%	20%	0%	3%	0%	100%	98%
Vol Right, %	0%	0%	32%	46%	0%	97%	0%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	445	327	206	71	115	147	565	289
LT Vol	48	0	0	69	71	0	147	0	0
Through Vol	0	445	222	42	0	3	0	565	282
RT Vol	0	0	105	95	0	112	0	0	7
Lane Flow Rate	64	593	436	275	95	153	196	753	386
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.2	1.771	1.276	0.934	0.345	0.509	0.596	2.185	1.118
Departure Headway (Hd)	12.595	12.066	11.829	15.758	16.821	15.587	11.937	11.41	11.392
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	287	308	310	233	216	233	304	324	320
Service Time	10.295	9.766	9.529	13.458	14.521	13.287	9.637	9.11	9.092
HCM Lane V/C Ratio	0.223	1.925	1.406	1.18	0.44	0.657	0.645	2.324	1.206
HCM Control Delay	18.4	387.5	179.8	86.3	28.1	33.4	30.8	567.6	120.9
HCM Lane LOS	C	F	F	F	D	D	D	F	F
HCM 95th-tile Q	0.7	34.5	18.4	8.1	1.5	2.6	3.6	51.7	14.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	24	235	85	19	3	81	683	159	10	934	70
Future Volume (veh/h)	127	24	235	85	19	3	81	683	159	10	934	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	29	280	101	23	4	96	813	189	12	1112	83
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	192	396	335	130	331	280	124	1569	700	26	1373	613
Arrive On Green	0.11	0.21	0.21	0.07	0.18	0.18	0.07	0.45	0.45	0.01	0.39	0.39
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	151	29	280	101	23	4	96	813	189	12	1112	83
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	6.1	0.9	12.5	4.1	0.8	0.2	3.9	12.1	5.5	0.5	20.6	2.5
Cycle Q Clear(g_c), s	6.1	0.9	12.5	4.1	0.8	0.2	3.9	12.1	5.5	0.5	20.6	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	396	335	130	331	280	124	1569	700	26	1373	613
V/C Ratio(X)	0.79	0.07	0.84	0.78	0.07	0.01	0.77	0.52	0.27	0.46	0.81	0.14
Avail Cap(c_a), veh/h	422	1114	944	253	936	794	301	2044	912	121	1683	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	22.8	27.3	33.1	24.8	24.5	33.2	14.4	12.6	35.5	19.7	14.2
Incr Delay (d2), s/veh	7.0	0.1	5.5	9.6	0.1	0.0	9.8	0.3	0.2	12.3	2.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.4	4.8	2.0	0.3	0.1	1.9	4.2	1.7	0.3	7.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	22.8	32.8	42.6	24.9	24.6	43.0	14.7	12.8	47.8	22.2	14.3
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		460			128			1098			1207	
Approach Delay, s/veh		34.0			38.9			16.8			21.9	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	20.1	9.6	33.1	12.5	17.6	5.6	37.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	6.1	14.5	5.9	22.6	8.1	2.8	2.5	14.1
Green Ext Time (p_c), s	0.1	1.1	0.1	6.0	0.3	0.1	0.0	6.6

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	430	246	48	228	109	111	596	83	152	977	104
Future Volume (veh/h)	157	430	246	48	228	109	111	596	83	152	977	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	183	500	286	56	265	127	129	693	97	177	1136	121
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	213	707	403	71	870	388	154	1209	539	207	1315	587
Arrive On Green	0.12	0.33	0.33	0.04	0.25	0.25	0.09	0.35	0.35	0.12	0.38	0.38
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	183	407	379	56	265	127	129	693	97	177	1136	121
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	11.7	23.1	23.3	3.6	7.0	7.6	8.2	18.4	4.9	11.3	34.1	5.9
Cycle Q Clear(g_c), s	11.7	23.1	23.3	3.6	7.0	7.6	8.2	18.4	4.9	11.3	34.1	5.9
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	576	534	71	870	388	154	1209	539	207	1315	587
V/C Ratio(X)	0.86	0.71	0.71	0.78	0.30	0.33	0.84	0.57	0.18	0.86	0.86	0.21
Avail Cap(c_a), veh/h	289	576	534	77	870	388	154	1235	551	297	1520	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	32.9	33.0	53.7	34.3	34.5	50.7	30.0	25.6	48.8	32.4	23.6
Incr Delay (d2), s/veh	17.3	7.1	7.8	37.8	0.9	2.2	31.5	0.6	0.2	15.2	4.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	10.2	9.6	2.3	2.9	3.0	4.9	7.5	1.8	5.7	14.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	40.1	40.8	91.5	35.2	36.8	82.2	30.6	25.7	64.0	37.2	23.8
LnGrp LOS	E	D	D	F	D	D	F	C	C	E	D	C
Approach Vol, veh/h		969			448			919			1434	
Approach Delay, s/veh		45.2			42.7			37.3			39.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	42.0	14.5	47.3	18.3	32.8	17.9	43.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.6	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	15.6	25.3	10.2	36.1	13.7	9.6	13.3	20.4
Green Ext Time (p_c), s	0.0	3.5	0.0	6.7	0.2	1.5	0.2	4.7

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	79	796	108	83	1174
Future Volume (veh/h)	48	79	796	108	83	1174
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	53	88	884	120	92	1304
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1848	251	116	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3212	423	1767	3618
Grp Volume(v), veh/h	53	88	500	504	92	1304
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1779	1767	1763
Q Serve(g_s), s	2.9	5.5	19.3	19.3	6.2	21.4
Cycle Q Clear(g_c), s	2.9	5.5	19.3	19.3	6.2	21.4
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	405	360	1044	1054	116	2453
V/C Ratio(X)	0.13	0.24	0.48	0.48	0.79	0.53
Avail Cap(c_a), veh/h	405	360	1044	1054	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	37.8	13.9	13.9	55.2	8.8
Incr Delay (d2), s/veh	0.7	1.6	1.6	1.6	11.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.4	7.6	7.7	3.0	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.4	39.4	15.5	15.5	66.4	9.6
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	141		1004			1396
Approach Delay, s/veh	38.6		15.5			13.4
Approach LOS	D		B			B

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		88.0		32.0	12.4	75.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s		23.4		7.5	8.2	21.3
Green Ext Time (p_c), s		12.5		0.3	0.1	7.3

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1067	59	51	1028	70	41	29	82	50	18	12
Future Volume (veh/h)	17	1067	59	51	1028	70	41	29	82	50	18	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	18	1173	65	56	1130	76	45	32	90	54	20	13
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	149	1631	90	90	1499	101	148	51	144	88	89	58
Arrive On Green	0.08	0.48	0.48	0.05	0.45	0.45	0.08	0.12	0.12	0.05	0.08	0.08
Sat Flow, veh/h	1781	3396	188	1767	3352	225	1767	433	1218	1781	1058	688
Grp Volume(v), veh/h	18	608	630	56	594	612	45	0	122	54	0	33
Grp Sat Flow(s),veh/h/ln	1781	1763	1822	1767	1763	1815	1767	0	1651	1781	0	1747
Q Serve(g_s), s	0.6	16.4	16.4	1.9	16.8	16.8	1.4	0.0	4.2	1.8	0.0	1.1
Cycle Q Clear(g_c), s	0.6	16.4	16.4	1.9	16.8	16.8	1.4	0.0	4.2	1.8	0.0	1.1
Prop In Lane	1.00		0.10	1.00		0.12	1.00		0.74	1.00		0.39
Lane Grp Cap(c), veh/h	149	847	875	90	788	812	148	0	195	88	0	146
V/C Ratio(X)	0.12	0.72	0.72	0.63	0.75	0.75	0.30	0.00	0.63	0.61	0.00	0.23
Avail Cap(c_a), veh/h	540	1639	1694	305	1409	1450	536	0	758	263	0	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	12.3	12.3	27.8	13.8	13.8	25.7	0.0	25.1	27.8	0.0	25.5
Incr Delay (d2), s/veh	0.4	1.2	1.1	7.0	1.5	1.5	1.1	0.0	3.3	6.7	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.6	4.7	0.9	4.9	5.1	0.6	0.0	1.7	0.9	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	13.5	13.5	34.7	15.2	15.2	26.9	0.0	28.4	34.5	0.0	26.3
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1256			1262			167			87	
Approach Delay, s/veh		13.6			16.1			27.9			31.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	33.2	9.5	9.5	9.5	31.2	7.5	11.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.3	55.5	18.1	18.1	18.1	47.7	8.8	27.4
Max Q Clear Time (g_c+I1), s	3.9	18.4	3.4	3.1	2.6	18.8	3.8	6.2
Green Ext Time (p_c), s	0.0	8.7	0.1	0.1	0.0	7.9	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	249	17	84	157	38	7	48	128	19	30	8
Future Vol, veh/h	24	249	17	84	157	38	7	48	128	19	30	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	28	286	20	97	180	44	8	55	147	22	34	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	224	0	0	306	0	0	770	770	296	849	758	202
Stage 1	-	-	-	-	-	-	352	352	-	396	396	-
Stage 2	-	-	-	-	-	-	418	418	-	453	362	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1351	-	-	1260	-	-	319	332	746	282	338	841
Stage 1	-	-	-	-	-	-	667	633	-	631	606	-
Stage 2	-	-	-	-	-	-	614	592	-	588	627	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1351	-	-	1260	-	-	267	300	746	180	306	841
Mov Cap-2 Maneuver	-	-	-	-	-	-	267	300	-	180	306	-
Stage 1	-	-	-	-	-	-	653	620	-	618	559	-
Stage 2	-	-	-	-	-	-	526	546	-	421	614	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.4	16	22.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	267	531	1351	-	-	1260	-	-	267
HCM Lane V/C Ratio	0.03	0.381	0.02	-	-	0.077	-	-	0.245
HCM Control Delay (s)	18.9	15.9	7.7	-	-	8.1	-	-	22.8
HCM Lane LOS	C	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	1.8	0.1	-	-	0.2	-	-	0.9

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	164	66	69	79	1	42	0	64	0	1	1
Future Vol, veh/h	0	164	66	69	79	1	42	0	64	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	184	74	78	89	1	47	0	72	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	90	0	0	258	0	0	468	467	221	503	504	90
Stage 1	-	-	-	-	-	-	221	221	-	246	246	-
Stage 2	-	-	-	-	-	-	247	246	-	257	258	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1512	-	-	1313	-	-	507	495	821	481	472	971
Stage 1	-	-	-	-	-	-	784	722	-	760	704	-
Stage 2	-	-	-	-	-	-	759	704	-	750	696	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1512	-	-	1313	-	-	481	464	821	418	442	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	481	464	-	418	442	-
Stage 1	-	-	-	-	-	-	784	722	-	760	660	-
Stage 2	-	-	-	-	-	-	709	660	-	684	696	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.7	11.9	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	641	1512	-	-	1313	-	-	607
HCM Lane V/C Ratio	0.186	-	-	-	0.059	-	-	0.004
HCM Control Delay (s)	11.9	0	-	-	7.9	0	-	11
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	0

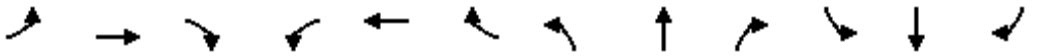
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	20	0	4	0	106	22	11	106	0
Future Vol, veh/h	0	0	0	20	0	4	0	106	22	11	106	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	22	0	4	0	114	24	12	114	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	266	276	114	264	264	126	114	0	0	138	0	0
Stage 1	138	138	-	126	126	-	-	-	-	-	-	-
Stage 2	128	138	-	138	138	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	691	635	944	693	645	930	1488	-	-	1458	-	-
Stage 1	870	786	-	883	796	-	-	-	-	-	-	-
Stage 2	881	786	-	870	786	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	683	629	944	688	639	930	1488	-	-	1458	-	-
Mov Cap-2 Maneuver	683	629	-	688	639	-	-	-	-	-	-	-
Stage 1	870	779	-	883	796	-	-	-	-	-	-	-
Stage 2	877	786	-	862	779	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.2	0	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	-	719	1458	-	-
HCM Lane V/C Ratio	-	-	-	-	0.036	0.008	-	-
HCM Control Delay (s)	0	-	-	0	10.2	7.5	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Future Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	947	802	152	985	835	117	342	290	87	591	263
Arrive On Green	0.06	0.51	0.51	0.09	0.53	0.53	0.07	0.18	0.18	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	5.2	44.2	14.8	6.9	27.9	4.2	6.7	14.6	12.3	5.0	3.7	6.3
Cycle Q Clear(g_c), s	5.2	44.2	14.8	6.9	27.9	4.2	6.7	14.6	12.3	5.0	3.7	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	947	802	152	985	835	117	342	290	87	591	263
V/C Ratio(X)	0.80	0.92	0.45	0.80	0.70	0.15	3.96	0.82	0.70	1.44	0.25	0.41
Avail Cap(c_a), veh/h	115	947	802	267	985	835	117	673	571	87	1220	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	23.3	16.1	45.8	18.0	12.4	47.6	40.0	39.1	48.5	37.0	38.1
Incr Delay (d2), s/veh	31.3	15.7	1.8	9.4	4.1	0.4	1353.7	4.8	3.1	252.0	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	20.5	5.3	3.3	11.3	1.4	46.9	6.9	4.8	8.3	1.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.3	39.0	17.9	55.2	22.1	12.8	1401.4	44.8	42.2	300.5	37.2	39.1
LnGrp LOS	E	D	B	E	C	B	F	D	D	F	D	D
Approach Vol, veh/h		1327			935			947			384	
Approach Delay, s/veh		36.0			25.1			708.9			124.1	
Approach LOS		D			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	56.1	11.2	21.4	11.1	58.2	9.5	23.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.9	46.2	8.7	8.3	7.2	29.9	7.0	16.6
Green Ext Time (p_c), s	0.1	0.0	0.0	1.2	0.0	4.5	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	220.0
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	159	156	108	143	39	228	550	252	37	356	34
Future Volume (veh/h)	37	159	156	108	143	39	228	550	252	37	356	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	169	166	115	152	41	243	585	268	39	379	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	293	288	142	548	148	274	738	625	55	890	84
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.27	0.27
Sat Flow, veh/h	1781	866	851	1781	1419	383	1781	1870	1585	1781	3281	310
Grp Volume(v), veh/h	39	0	335	115	0	193	243	585	268	39	204	211
Grp Sat Flow(s),veh/h/ln	1781	0	1717	1781	0	1801	1781	1870	1585	1781	1777	1815
Q Serve(g_s), s	2.5	0.0	18.4	7.3	0.0	8.4	15.3	31.6	14.1	2.5	10.8	11.0
Cycle Q Clear(g_c), s	2.5	0.0	18.4	7.3	0.0	8.4	15.3	31.6	14.1	2.5	10.8	11.0
Prop In Lane	1.00		0.50	1.00		0.21	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	55	0	580	142	0	696	274	738	625	55	482	492
V/C Ratio(X)	0.71	0.00	0.58	0.81	0.00	0.28	0.89	0.79	0.43	0.71	0.42	0.43
Avail Cap(c_a), veh/h	95	0	580	210	0	696	365	738	625	98	482	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	31.2	51.9	0.0	24.2	47.5	30.6	25.3	55.0	34.4	34.4
Incr Delay (d2), s/veh	15.1	0.0	4.1	13.7	0.0	1.0	17.9	8.6	2.1	15.1	2.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	7.9	3.7	0.0	3.6	7.9	15.1	5.4	1.3	4.9	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	0.0	35.4	65.6	0.0	25.1	65.4	39.1	27.4	70.2	37.1	37.1
LnGrp LOS	E	A	D	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		374			308			1096			454	
Approach Delay, s/veh		39.0			40.2			42.1			39.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.2	22.2	35.6	8.1	48.8	8.1	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.3	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	20.4	17.3	13.0	4.5	10.4	4.5	33.6
Green Ext Time (p_c), s	0.1	1.7	0.3	1.9	0.0	1.0	0.0	3.5

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	449	83	111	243	245	188	861	149	255	480	70
Future Volume (veh/h)	134	449	83	111	243	245	188	861	149	255	480	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	458	85	113	248	250	192	879	152	260	490	71
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	1136	507	139	1086	484	222	1036	462	292	1175	524
Arrive On Green	0.09	0.32	0.32	0.08	0.31	0.31	0.12	0.29	0.29	0.16	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	137	458	85	113	248	250	192	879	152	260	490	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.3	12.3	4.7	7.7	6.4	16.0	13.0	28.6	9.2	17.5	13.1	3.9
Cycle Q Clear(g_c), s	9.3	12.3	4.7	7.7	6.4	16.0	13.0	28.6	9.2	17.5	13.1	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1136	507	139	1086	484	222	1036	462	292	1175	524
V/C Ratio(X)	0.83	0.40	0.17	0.81	0.23	0.52	0.86	0.85	0.33	0.89	0.42	0.14
Avail Cap(c_a), veh/h	254	1136	507	257	1086	484	377	1289	575	472	1477	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	32.6	30.0	55.7	31.8	35.1	52.7	40.9	34.1	50.2	31.9	28.8
Incr Delay (d2), s/veh	13.0	1.1	0.7	10.7	0.5	3.9	10.1	4.6	0.4	12.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	5.2	1.9	3.7	2.7	6.5	6.3	12.7	3.5	8.6	5.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	33.7	30.7	66.4	32.3	39.0	62.8	45.5	34.5	62.2	32.1	28.9
LnGrp LOS	E	C	C	E	C	D	E	D	C	E	C	C
Approach Vol, veh/h		680			611			1223			821	
Approach Delay, s/veh		40.2			41.3			46.8			41.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	43.7	19.8	45.1	15.8	42.0	24.6	40.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	37.3	26.0	51.0	17.5	37.5	32.5	44.5
Max Q Clear Time (g_c+I1), s	19.7	14.3	15.0	15.1	11.3	18.0	19.5	30.6
Green Ext Time (p_c), s	0.1	2.8	0.4	3.4	0.1	2.0	0.6	5.2

Intersection Summary	
HCM 6th Ctrl Delay	43.1
HCM 6th LOS	D

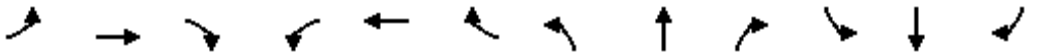
Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	6	189	28	7	119
Future Vol, veh/h	21	6	189	28	7	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	23	7	210	31	8	132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	374	226	0	0	241	0
Stage 1	226	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	613	796	-	-	1286	-
Stage 1	795	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	609	796	-	-	1286	-
Mov Cap-2 Maneuver	609	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	857	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	643	1286	-
HCM Lane V/C Ratio	-	-	0.047	0.006	-
HCM Control Delay (s)	-	-	10.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	794	10	21	716	0	6	0	47	0	0	0
Future Volume (veh/h)	39	794	10	21	716	0	6	0	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	845	11	22	762	0	6	0	50			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	437	2007	26	36	2187	0	36	0	298			
Arrive On Green	0.62	0.62	0.62	0.02	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	632	3222	42	1598	3272	0	154	0	1285			
Grp Volume(v), veh/h	41	418	438	22	762	0	56	0	0			
Grp Sat Flow(s),veh/h/ln	632	1594	1670	1598	1594	0	1439	0	0			
Q Serve(g_s), s	3.1	14.7	14.7	1.5	10.8	0.0	3.4	0.0	0.0			
Cycle Q Clear(g_c), s	7.0	14.7	14.7	1.5	10.8	0.0	3.4	0.0	0.0			
Prop In Lane	1.00		0.03	1.00		0.00	0.11		0.89			
Lane Grp Cap(c), veh/h	437	993	1041	36	2187	0	334	0	0			
V/C Ratio(X)	0.09	0.42	0.42	0.62	0.35	0.00	0.17	0.00	0.00			
Avail Cap(c_a), veh/h	437	993	1041	182	2479	0	334	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.0	10.6	10.6	53.3	7.1	0.0	33.7	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.3	1.3	16.2	0.1	0.0	1.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.6	4.8	0.7	2.8	0.0	1.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	11.9	11.8	69.5	7.2	0.0	34.8	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	C	A	A			
Approach Vol, veh/h		897			784			56				
Approach Delay, s/veh		11.8			9.0			34.8				
Approach LOS		B			A			C				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.9	73.0				79.9		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.5	16.7				12.8		5.4				
Green Ext Time (p_c), s	0.0	5.7				5.2		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	64	36	106	59	117	11	462	108	87	663	3
Future Volume (veh/h)	2	64	36	106	59	117	11	462	108	87	663	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	2	72	40	119	66	131	12	519	121	98	745	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	95	316	172	253	125	179	26	919	410	139	1169	5
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.28	0.28	0.08	0.34	0.34
Sat Flow, veh/h	7	1060	577	427	420	600	1668	3328	1485	1668	3400	14
Grp Volume(v), veh/h	114	0	0	316	0	0	12	519	121	98	365	383
Grp Sat Flow(s),veh/h/ln	1644	0	0	1447	0	0	1668	1664	1485	1668	1664	1749
Q Serve(g_s), s	0.0	0.0	0.0	5.3	0.0	0.0	0.3	5.3	2.5	2.3	7.3	7.3
Cycle Q Clear(g_c), s	2.1	0.0	0.0	7.6	0.0	0.0	0.3	5.3	2.5	2.3	7.3	7.3
Prop In Lane	0.02		0.35	0.38		0.41	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	583	0	0	557	0	0	26	919	410	139	572	602
V/C Ratio(X)	0.20	0.00	0.00	0.57	0.00	0.00	0.46	0.56	0.30	0.70	0.64	0.64
Avail Cap(c_a), veh/h	1688	0	0	1508	0	0	402	4090	1824	824	2467	2593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	0.0	0.0	12.3	0.0	0.0	19.3	12.2	11.3	17.6	10.9	10.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.9	0.0	0.0	12.1	0.5	0.4	6.3	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.1	0.0	0.0	0.2	1.3	0.6	0.9	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.6	0.0	0.0	13.2	0.0	0.0	31.4	12.8	11.7	24.0	12.1	12.0
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		114			316			652			846	
Approach Delay, s/veh		10.6			13.2			12.9			13.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	16.3	5.1	18.1	16.3	7.8	15.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	38.5	9.5	58.5	38.5	19.5	48.5
Max Q Clear Time (g_c+I1), s	4.1	2.3	9.3	9.6	4.3	7.3
Green Ext Time (p_c), s	0.7	0.0	4.3	2.2	0.2	3.6

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	306	253	179	402	97	85	445	76	65	537	271
Future Volume (veh/h)	257	306	253	179	402	97	85	445	76	65	537	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	329	272	192	432	104	91	478	82	70	577	291
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	311	949	423	227	780	348	115	1033	461	88	630	317
Arrive On Green	0.19	0.29	0.29	0.14	0.24	0.24	0.07	0.32	0.32	0.05	0.30	0.30
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	276	329	272	192	432	104	91	478	82	70	448	420
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	15.9	7.7	15.7	11.1	11.2	5.6	5.3	11.3	3.9	4.1	25.6	25.7
Cycle Q Clear(g_c), s	15.9	7.7	15.7	11.1	11.2	5.6	5.3	11.3	3.9	4.1	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	311	949	423	227	780	348	115	1033	461	88	490	458
V/C Ratio(X)	0.89	0.35	0.64	0.85	0.55	0.30	0.79	0.46	0.18	0.80	0.92	0.92
Avail Cap(c_a), veh/h	465	949	423	465	780	348	354	1340	598	198	515	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	26.4	29.2	39.9	31.6	29.5	43.6	25.8	23.3	44.5	32.0	32.0
Incr Delay (d2), s/veh	13.0	1.0	7.3	8.5	2.8	2.2	11.7	0.3	0.2	15.1	20.6	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	2.8	5.8	4.6	4.3	2.0	2.4	4.0	1.2	1.9	11.7	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	27.4	36.5	48.4	34.4	31.7	55.2	26.1	23.5	59.7	52.5	53.8
LnGrp LOS	D	C	D	D	C	C	E	C	C	E	D	D
Approach Vol, veh/h		877			728			651			938	
Approach Delay, s/veh		37.5			37.7			29.8			53.6	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	32.6	11.3	33.5	22.9	27.6	9.7	35.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	13.1	17.7	7.3	27.7	17.9	13.2	6.1	13.3
Green Ext Time (p_c), s	0.4	1.4	0.1	1.4	0.5	2.0	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	0	60	18	0	0	184	663	14	8	863	110
Future Volume (veh/h)	22	0	60	18	0	0	184	663	14	8	863	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	25	0	67	20	0	0	207	745	16	9	970	124
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	39	1137	507	34	1126	502	224	1487	663	18	1076	480
Arrive On Green	0.02	0.00	0.35	0.02	0.00	0.00	0.14	0.46	0.46	0.01	0.33	0.33
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	25	0	67	20	0	0	207	745	16	9	970	124
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.7	0.0	3.6	1.4	0.0	0.0	14.2	18.2	0.7	0.6	32.1	7.1
Cycle Q Clear(g_c), s	1.7	0.0	3.6	1.4	0.0	0.0	14.2	18.2	0.7	0.6	32.1	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	1137	507	34	1126	502	224	1487	663	18	1076	480
V/C Ratio(X)	0.64	0.00	0.13	0.60	0.00	0.00	0.93	0.50	0.02	0.51	0.90	0.26
Avail Cap(c_a), veh/h	108	1137	507	94	1126	502	224	1487	663	94	1166	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	0.0	24.9	54.7	0.0	0.0	48.0	21.5	16.7	55.4	35.9	27.5
Incr Delay (d2), s/veh	16.0	0.0	0.5	15.7	0.0	0.0	40.2	0.3	0.0	20.7	9.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.2	0.7	0.0	0.0	7.9	6.3	0.2	0.3	13.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.5	0.0	25.5	70.4	0.0	0.0	88.3	21.7	16.7	76.2	45.2	27.8
LnGrp LOS	E	A	C	E	A	A	F	C	B	E	D	C
Approach Vol, veh/h		92			20			968			1103	
Approach Delay, s/veh		37.7			70.4			35.9			43.5	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	44.0	20.0	41.9	7.2	43.6	5.7	56.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	3.4	5.6	16.2	34.1	3.7	0.0	2.6	20.2
Green Ext Time (p_c), s	0.0	0.2	0.0	3.3	0.0	0.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	802	168
Future Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	802	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1009	23	7	933	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	322	0	171	180	30	84	192	1822	42	15	1470	656
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.12	0.56	0.56	0.01	0.45	0.45
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3270	75	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	505	527	7	933	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1709	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.4	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.4	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	322	0	171	294	0	0	192	911	952	15	1470	656
V/C Ratio(X)	0.07	0.00	0.22	0.01	0.00	0.00	1.71	0.55	0.55	0.46	0.63	0.30
Avail Cap(c_a), veh/h	826	0	735	817	0	0	192	2818	2944	442	6135	2737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	17.1	16.6	0.0	0.0	18.8	6.1	6.1	21.0	9.1	7.5
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.0	339.1	0.5	0.5	19.8	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	19.5	1.0	1.1	0.1	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	0.0	17.7	16.7	0.0	0.0	358.0	6.6	6.6	40.8	9.5	7.7
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1360			1135	
Approach Delay, s/veh		17.4			16.7			91.3			9.4	
Approach LOS		B			B			F			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.5	9.5	23.7	9.5	4.9	28.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	5.0	80.0	21.5	11.5	73.5
Max Q Clear Time (g_c+I1), s	3.0	7.0	11.4	2.0	2.2	10.4
Green Ext Time (p_c), s	0.2	0.0	7.8	0.0	0.0	6.8

Intersection Summary	
HCM 6th Ctrl Delay	53.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	176	229	65	145	230	190	873	73	189	599	52
Future Volume (veh/h)	92	176	229	65	145	230	190	873	73	189	599	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	99	189	246	70	156	247	204	939	78	203	644	56
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
Arrive On Green	0.07	0.35	0.35	0.05	0.33	0.33	0.14	0.32	0.32	0.13	0.31	0.31
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	99	189	246	70	156	247	204	939	78	203	644	56
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.8	20.3	3.3
Cycle Q Clear(g_c), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.8	20.3	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
V/C Ratio(X)	0.82	0.16	0.46	0.80	0.14	0.49	0.89	0.89	0.17	0.91	0.61	0.12
Avail Cap(c_a), veh/h	129	1188	530	118	1123	501	277	1204	537	224	1099	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	27.4	31.0	58.1	28.8	32.9	52.6	40.3	30.7	53.0	36.3	30.5
Incr Delay (d2), s/veh	31.2	0.3	2.9	23.1	0.3	3.4	24.5	7.6	0.2	36.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.9	5.9	2.7	1.6	6.1	7.6	14.0	1.6	8.2	8.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.0	27.7	33.9	81.3	29.1	36.3	77.2	47.9	30.8	89.1	37.3	30.6
LnGrp LOS	F	C	C	F	C	D	E	D	C	F	D	C
Approach Vol, veh/h		534			473			1221			903	
Approach Delay, s/veh		41.7			40.6			51.7			48.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	48.4	21.4	43.2	13.4	46.0	21.0	43.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	17.1	17.8	16.8	22.3	9.2	18.3	16.8	35.0
Green Ext Time (p_c), s	0.0	1.8	0.2	3.7	0.0	1.6	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

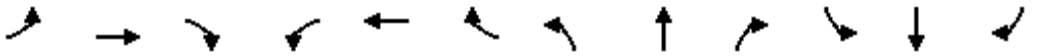
Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	5	3	0	6	17	157	1	0	121	56
Future Vol, veh/h	57	0	5	3	0	6	17	157	1	0	121	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	0	5	3	0	6	18	167	1	0	129	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	5	0	0	229	137	3	218	136	3
Stage 1	-	-	-	-	-	-	125	125	-	9	9	-
Stage 2	-	-	-	-	-	-	104	12	-	209	127	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1589	-	-	1590	-	-	718	747	1069	730	748	1069
Stage 1	-	-	-	-	-	-	869	785	-	1002	880	-
Stage 2	-	-	-	-	-	-	892	878	-	784	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1589	-	-	1590	-	-	567	716	1069	580	717	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	716	-	580	717	-
Stage 1	-	-	-	-	-	-	835	754	-	963	878	-
Stage 2	-	-	-	-	-	-	717	876	-	586	752	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	2.4	12	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	1589	-	-	1590	-	-	800
HCM Lane V/C Ratio	0.266	0.038	-	-	0.002	-	-	0.235
HCM Control Delay (s)	12	7.4	0	-	7.3	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0	-	-	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	345	38	30	589	98	13	65	7	65	57	38
Future Volume (veh/h)	69	345	38	30	589	98	13	65	7	65	57	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	73	367	40	32	627	104	14	69	7	69	61	40
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	128	1290	575	67	1167	521	153	252	23	244	118	64
Arrive On Green	0.07	0.37	0.37	0.04	0.34	0.34	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	149	1454	135	511	683	367
Grp Volume(v), veh/h	73	367	40	32	627	104	90	0	0	170	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1737	0	0	1561	0	0
Q Serve(g_s), s	1.3	2.4	0.5	0.6	4.8	1.6	0.0	0.0	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	1.3	2.4	0.5	0.6	4.8	1.6	1.4	0.0	0.0	3.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.08	0.41		0.24
Lane Grp Cap(c), veh/h	128	1290	575	67	1167	521	429	0	0	425	0	0
V/C Ratio(X)	0.57	0.28	0.07	0.48	0.54	0.20	0.21	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	1426	4161	1856	1426	4161	1856	2186	0	0	1999	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.6	7.1	6.6	15.4	8.7	7.7	11.8	0.0	0.0	12.4	0.0	0.0
Incr Delay (d2), s/veh	4.0	0.1	0.1	5.3	0.4	0.2	0.2	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.4	0.1	0.3	0.8	0.2	0.5	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	7.3	6.6	20.7	9.1	7.8	12.0	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		480			763			90			170	
Approach Delay, s/veh		8.9			9.4			12.0			13.0	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	16.7		10.2	6.9	15.6		10.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.6	4.4		5.2	3.3	6.8		3.4				
Green Ext Time (p_c), s	0.0	2.3		1.1	0.1	4.3		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		9.8	
HCM 6th LOS		A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	299	50	136	384	155	34	135	64	90	72	43
Future Volume (veh/h)	79	299	50	136	384	155	34	135	64	90	72	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	374	62	170	480	194	42	169	80	112	90	54
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	229	852	140	266	1065	475	107	276	119	215	157	77
Arrive On Green	0.13	0.29	0.29	0.16	0.31	0.31	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1711	2934	482	1711	3413	1522	151	1072	464	504	609	297
Grp Volume(v), veh/h	99	216	220	170	480	194	291	0	0	256	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1709	1711	1706	1522	1687	0	0	1410	0	0
Q Serve(g_s), s	3.2	6.2	6.4	5.7	6.8	6.1	0.0	0.0	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	3.2	6.2	6.4	5.7	6.8	6.1	9.1	0.0	0.0	9.7	0.0	0.0
Prop In Lane	1.00		0.28	1.00		1.00	0.14		0.27	0.44		0.21
Lane Grp Cap(c), veh/h	229	495	496	266	1065	475	502	0	0	448	0	0
V/C Ratio(X)	0.43	0.44	0.44	0.64	0.45	0.41	0.58	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	536	929	930	818	2420	1079	1146	0	0	994	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.1	17.5	17.5	24.0	16.7	16.4	20.1	0.0	0.0	20.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	2.2	2.2	2.5	1.1	2.0	3.8	0.0	0.0	4.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.3	2.3	2.1	2.3	2.0	3.7	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	19.7	19.8	26.6	17.8	18.5	23.9	0.0	0.0	24.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		535			844			291			256	
Approach Delay, s/veh		20.8			19.7			23.9			24.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	24.6		22.6	12.1	25.9		22.6				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	11.7	8.4		11.1	5.2	8.8		11.7				
Green Ext Time (p_c), s	0.4	5.7		4.4	0.2	10.1		3.9				

Intersection Summary		
HCM 6th Ctrl Delay		21.3
HCM 6th LOS		C

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	8	0	6	0
Future Vol, veh/h	0	0	8	0	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	0	15	0	11	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	15	0	-	0	15	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1433	-	-	-	934	986
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1433	-	-	-	934	986
Mov Cap-2 Maneuver	-	-	-	-	934	-
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1433	-	-	-	934
HCM Lane V/C Ratio	-	-	-	-	0.012
HCM Control Delay (s)	0	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	362	6	6	695	1	3	0	3	1	0	0
Future Vol, veh/h	0	362	6	6	695	1	3	0	3	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	402	7	7	772	1	3	0	3	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	773	0	0	409	0	0	806	1193	205	988	1196	387
Stage 1	-	-	-	-	-	-	406	406	-	787	787	-
Stage 2	-	-	-	-	-	-	400	787	-	201	409	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	794	-	-	1098	-	-	261	176	780	192	175	592
Stage 1	-	-	-	-	-	-	574	579	-	336	385	-
Stage 2	-	-	-	-	-	-	579	385	-	762	577	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	794	-	-	1098	-	-	260	175	780	190	174	592
Mov Cap-2 Maneuver	-	-	-	-	-	-	260	175	-	190	174	-
Stage 1	-	-	-	-	-	-	574	579	-	336	383	-
Stage 2	-	-	-	-	-	-	575	383	-	759	577	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.4	24.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	794	-	-	1098	-	-	190
HCM Lane V/C Ratio	0.017	-	-	-	0.006	-	-	0.006
HCM Control Delay (s)	14.4	0	-	-	8.3	-	-	24.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	75	33	31	103	14	19	33	17	10	62	8
Future Vol, veh/h	5	75	33	31	103	14	19	33	17	10	62	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	104	46	43	143	19	26	46	24	14	86	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	9.5	8.8	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	4%	21%	12%
Vol Thru, %	48%	66%	70%	78%
Vol Right, %	25%	29%	9%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	113	148	80
LT Vol	19	5	31	10
Through Vol	33	75	103	62
RT Vol	17	33	14	8
Lane Flow Rate	96	157	206	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.132	0.202	0.27	0.154
Departure Headway (Hd)	4.946	4.633	4.722	4.981
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	772	758	717
Service Time	2.999	2.68	2.766	3.033
HCM Lane V/C Ratio	0.133	0.203	0.272	0.155
HCM Control Delay	8.8	8.9	9.5	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.8	1.1	0.5

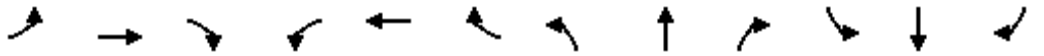
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	0	0	0	0	0	0	89	0	0	163	0
Future Vol, veh/h	4	0	0	0	0	0	0	89	0	0	163	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	6	0	0	0	0	0	0	137	0	0	251	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	388	388	251	388	388	137	251	0	0	137	0	0
Stage 1	251	251	-	137	137	-	-	-	-	-	-	-
Stage 2	137	137	-	251	251	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	560	537	773	560	537	896	1280	-	-	1411	-	-
Stage 1	740	688	-	852	772	-	-	-	-	-	-	-
Stage 2	852	772	-	740	688	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	560	537	773	560	537	896	1280	-	-	1411	-	-
Mov Cap-2 Maneuver	560	537	-	560	537	-	-	-	-	-	-	-
Stage 1	740	688	-	852	772	-	-	-	-	-	-	-
Stage 2	852	772	-	740	688	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	0	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	560	-	1411	-	-
HCM Lane V/C Ratio	-	-	-	0.011	-	-	-	-
HCM Control Delay (s)	0	-	-	11.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	301	120	120	524	54	174	103	68	31	161	39
Future Volume (veh/h)	25	301	120	120	524	54	174	103	68	31	161	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	28	334	133	133	582	60	193	114	76	34	179	43
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	57	711	317	174	944	421	253	912	407	67	285	241
Arrive On Green	0.03	0.20	0.20	0.10	0.27	0.27	0.15	0.26	0.26	0.04	0.16	0.16
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	1826	1547
Grp Volume(v), veh/h	28	334	133	133	582	60	193	114	76	34	179	43
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1826	1547
Q Serve(g_s), s	0.7	3.9	3.4	3.4	6.7	1.3	4.9	1.1	1.7	0.9	4.2	1.1
Cycle Q Clear(g_c), s	0.7	3.9	3.4	3.4	6.7	1.3	4.9	1.1	1.7	0.9	4.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	57	711	317	174	944	421	253	912	407	67	285	241
V/C Ratio(X)	0.49	0.47	0.42	0.76	0.62	0.14	0.76	0.12	0.19	0.51	0.63	0.18
Avail Cap(c_a), veh/h	590	2923	1304	590	2923	1304	742	2164	965	742	1139	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	16.0	15.8	20.0	14.5	12.6	18.8	12.8	13.1	21.6	18.0	16.7
Incr Delay (d2), s/veh	6.4	0.5	0.9	6.8	0.7	0.2	4.8	0.1	0.2	5.9	2.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	1.0	1.4	1.9	0.4	1.9	0.3	0.5	0.4	1.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	16.5	16.7	26.9	15.2	12.7	23.5	12.9	13.3	27.5	20.3	17.1
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		495			775			383			256	
Approach Delay, s/veh		17.2			17.0			18.3			20.7	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	13.9	11.1	11.6	6.0	16.9	6.3	16.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.4	5.9	6.9	6.2	2.7	8.7	2.9	3.7
Green Ext Time (p_c), s	0.2	2.3	0.4	1.0	0.0	3.7	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	17.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	35	143	26	70	65	270	76	67	366	33
Future Vol, veh/h	9	3	35	143	26	70	65	270	76	67	366	33
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	12	4	45	183	33	90	83	346	97	86	469	42
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.2	16.8	16.7	20.1
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	19%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	6%	0%	27%	0%	100%	79%
Vol Right, %	0%	0%	46%	74%	0%	73%	0%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	180	166	47	143	96	67	244	155
LT Vol	65	0	0	9	143	0	67	0	0
Through Vol	0	180	90	3	0	26	0	244	122
RT Vol	0	0	76	35	0	70	0	0	33
Lane Flow Rate	83	231	213	60	183	123	86	313	199
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.194	0.504	0.445	0.148	0.453	0.269	0.196	0.67	0.417
Departure Headway (Hd)	8.377	7.863	7.534	8.835	8.898	7.875	8.218	7.705	7.552
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	427	457	477	404	403	454	436	469	475
Service Time	6.148	5.634	5.305	6.632	6.675	5.651	5.985	5.471	5.318
HCM Lane V/C Ratio	0.194	0.505	0.447	0.149	0.454	0.271	0.197	0.667	0.419
HCM Control Delay	13.2	18.4	16.3	13.2	18.9	13.6	13	24.9	15.7
HCM Lane LOS	B	C	C	B	C	B	B	C	C
HCM 95th-tile Q	0.7	2.8	2.3	0.5	2.3	1.1	0.7	4.9	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	6	58	232	34	7	191	353	76	3	411	116
Future Volume (veh/h)	32	6	58	232	34	7	191	353	76	3	411	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	7	70	280	41	8	230	425	92	4	495	140
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	71	166	140	342	450	382	287	1347	601	9	793	354
Arrive On Green	0.04	0.09	0.09	0.20	0.24	0.24	0.16	0.39	0.39	0.01	0.23	0.23
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	39	7	70	280	41	8	230	425	92	4	495	140
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	1.2	0.2	2.4	8.5	1.0	0.2	7.0	4.7	2.1	0.1	7.1	4.2
Cycle Q Clear(g_c), s	1.2	0.2	2.4	8.5	1.0	0.2	7.0	4.7	2.1	0.1	7.1	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	166	140	342	450	382	287	1347	601	9	793	354
V/C Ratio(X)	0.55	0.04	0.50	0.82	0.09	0.02	0.80	0.32	0.15	0.42	0.62	0.40
Avail Cap(c_a), veh/h	199	1147	972	559	1525	1292	496	2816	1256	158	2142	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	23.1	24.1	21.4	16.2	15.9	22.3	11.9	11.2	27.5	19.3	18.2
Incr Delay (d2), s/veh	6.4	0.1	2.7	4.9	0.1	0.0	5.2	0.1	0.1	27.4	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.9	3.6	0.4	0.1	2.9	1.5	0.6	0.1	2.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	23.2	26.8	26.3	16.3	15.9	27.5	12.1	11.3	54.9	20.1	18.9
LnGrp LOS	C	C	C	C	B	B	C	B	B	D	C	B
Approach Vol, veh/h		116			329			747			639	
Approach Delay, s/veh		28.5			24.8			16.7			20.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	9.5	13.6	17.1	6.8	18.1	4.8	25.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	10.5	4.4	9.0	9.1	3.2	3.0	2.1	6.7
Green Ext Time (p_c), s	0.5	0.2	0.3	3.5	0.0	0.2	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	210	184	84	382	102	223	515	103	75	527	132
Future Volume (veh/h)	51	210	184	84	382	102	223	515	103	75	527	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	61	253	222	101	460	123	269	620	124	90	635	159
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	78	637	538	126	1333	595	297	1167	520	114	801	357
Arrive On Green	0.04	0.36	0.36	0.07	0.38	0.38	0.17	0.34	0.34	0.07	0.23	0.23
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	61	246	229	101	460	123	269	620	124	90	635	159
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.7	11.3	11.8	6.1	10.0	5.7	16.2	15.4	6.2	5.4	18.3	9.4
Cycle Q Clear(g_c), s	3.7	11.3	11.8	6.1	10.0	5.7	16.2	15.4	6.2	5.4	18.3	9.4
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	619	555	126	1333	595	297	1167	520	114	801	357
V/C Ratio(X)	0.78	0.40	0.41	0.80	0.34	0.21	0.91	0.53	0.24	0.79	0.79	0.45
Avail Cap(c_a), veh/h	150	619	555	139	1333	595	302	1463	653	173	1206	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	25.6	25.8	48.6	23.3	21.9	43.3	28.5	25.5	49.0	38.5	35.1
Incr Delay (d2), s/veh	15.4	1.9	2.3	26.0	0.7	0.8	28.7	0.4	0.2	13.1	2.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.6	4.4	3.4	3.9	2.1	9.1	6.2	2.2	2.7	7.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	27.5	28.1	74.6	24.0	22.7	72.0	28.9	25.7	62.1	40.7	36.0
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		536			684			1013			884	
Approach Delay, s/veh		32.1			31.2			40.0			42.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	42.5	22.7	29.1	9.3	45.4	11.5	40.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.2	37.3	10.6	44.9
Max Q Clear Time (g_c+I1), s	8.1	13.8	18.2	20.3	5.7	12.0	7.4	17.4
Green Ext Time (p_c), s	0.0	2.5	0.0	4.2	0.0	3.0	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	87	64	786	43	30	494
Future Volume (veh/h)	87	64	786	43	30	494
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	110	81	995	54	38	625
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1646	89	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3410	180	1725	3532
Grp Volume(v), veh/h	110	81	516	533	38	625
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1779	1725	1721
Q Serve(g_s), s	6.4	5.2	25.9	25.9	2.2	7.9
Cycle Q Clear(g_c), s	6.4	5.2	25.9	25.9	2.2	7.9
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	381	339	853	882	295	2423
V/C Ratio(X)	0.29	0.24	0.60	0.60	0.13	0.26
Avail Cap(c_a), veh/h	381	339	853	882	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	38.5	21.8	21.8	42.2	6.4
Incr Delay (d2), s/veh	1.9	1.7	1.2	1.2	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.0	10.5	10.9	1.0	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.8	40.1	23.0	23.0	43.1	6.7
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	191		1049			663
Approach Delay, s/veh	40.5		23.0			8.8
Approach LOS	D		C			A

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	89.0	31.0	25.0	64.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	84.5	26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s	9.9	8.4	4.2	27.9
Green Ext Time (p_c), s	5.1	0.5	0.0	8.3

Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	405	15	101	748	53	45	13	93	55	24	14
Future Volume (veh/h)	7	405	15	101	748	53	45	13	93	55	24	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	460	17	115	850	58	51	14	106	60	26	15
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	1297	48	151	1213	83	172	26	196	100	108	62
Arrive On Green	0.10	0.37	0.37	0.09	0.36	0.36	0.10	0.14	0.14	0.06	0.10	0.10
Sat Flow, veh/h	1781	3495	129	1781	3375	230	1781	188	1425	1781	1113	642
Grp Volume(v), veh/h	8	233	244	115	447	461	51	0	120	60	0	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1847	1781	1777	1829	1781	0	1614	1781	0	1755
Q Serve(g_s), s	0.2	4.9	4.9	3.3	11.1	11.1	1.4	0.0	3.6	1.7	0.0	1.1
Cycle Q Clear(g_c), s	0.2	4.9	4.9	3.3	11.1	11.1	1.4	0.0	3.6	1.7	0.0	1.1
Prop In Lane	1.00		0.07	1.00		0.13	1.00		0.88	1.00		0.37
Lane Grp Cap(c), veh/h	172	659	685	151	638	657	172	0	222	100	0	170
V/C Ratio(X)	0.05	0.35	0.36	0.76	0.70	0.70	0.30	0.00	0.54	0.60	0.00	0.24
Avail Cap(c_a), veh/h	624	1665	1731	569	1610	1657	638	0	828	362	0	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	11.8	11.8	23.1	14.2	14.2	21.7	0.0	20.7	23.8	0.0	21.6
Incr Delay (d2), s/veh	0.1	0.3	0.3	7.6	1.4	1.4	0.9	0.0	2.0	5.7	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	1.5	1.4	3.3	3.4	0.6	0.0	1.4	0.8	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	12.1	12.1	30.7	15.6	15.5	22.6	0.0	22.8	29.6	0.0	22.3
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		485			1023			171			101	
Approach Delay, s/veh		12.2			17.3			22.7			26.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	23.8	9.5	9.5	9.5	23.2	7.4	11.6
Change Period (Y+Rc), s	4.5	* 4.6	4.5	4.5	4.5	* 4.6	4.5	4.5
Max Green Setting (Gmax), s	16.5	* 48	18.5	18.5	18.1	* 47	10.5	26.5
Max Q Clear Time (g_c+I1), s	5.3	6.9	3.4	3.1	2.2	13.1	3.7	5.6
Green Ext Time (p_c), s	0.2	2.5	0.1	0.1	0.0	5.4	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	105	4	82	185	11	4	26	67	31	21	20
Future Vol, veh/h	13	105	4	82	185	11	4	26	67	31	21	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	18	142	5	111	250	15	5	35	91	42	28	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	265	0	0	147	0	0	688	668	145	724	663	258
Stage 1	-	-	-	-	-	-	181	181	-	480	480	-
Stage 2	-	-	-	-	-	-	507	487	-	244	183	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1305	-	-	1441	-	-	362	380	905	342	383	783
Stage 1	-	-	-	-	-	-	823	752	-	569	556	-
Stage 2	-	-	-	-	-	-	550	552	-	762	750	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1305	-	-	1441	-	-	306	346	905	265	349	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	346	-	265	349	-
Stage 1	-	-	-	-	-	-	811	741	-	561	513	-
Stage 2	-	-	-	-	-	-	463	509	-	644	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2.3	12.4	18.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	306	623	1305	-	-	1441	-	-	355
HCM Lane V/C Ratio	0.018	0.202	0.013	-	-	0.077	-	-	0.274
HCM Control Delay (s)	17	12.2	7.8	-	-	7.7	-	-	18.9
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.7	0	-	-	0.2	-	-	1.1

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	71	26	61	95	1	41	1	37	0	0	0
Future Vol, veh/h	0	71	26	61	95	1	41	1	37	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	85	31	73	113	1	49	1	44	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	114	0	0	116	0	0	361	361	101	383	376	114
Stage 1	-	-	-	-	-	-	101	101	-	260	260	-
Stage 2	-	-	-	-	-	-	260	260	-	123	116	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1475	-	-	1473	-	-	595	566	954	575	555	939
Stage 1	-	-	-	-	-	-	905	811	-	745	693	-
Stage 2	-	-	-	-	-	-	745	693	-	881	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1475	-	-	1473	-	-	571	536	954	526	526	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	571	536	-	526	526	-
Stage 1	-	-	-	-	-	-	905	811	-	745	656	-
Stage 2	-	-	-	-	-	-	706	656	-	839	800	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.9	10.9	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	703	1475	-	-	1473	-	-	-
HCM Lane V/C Ratio	0.134	-	-	-	0.049	-	-	-
HCM Control Delay (s)	10.9	0	-	-	7.6	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	-

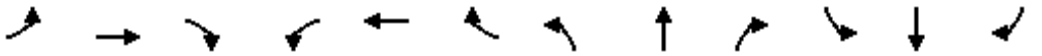
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	71	0	0	84	0
Future Vol, veh/h	0	0	0	0	0	0	0	71	0	0	84	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0	0	89	0	0	105	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	194	194	105	194	194	89	105	0	0	89	0	0
Stage 1	105	105	-	89	89	-	-	-	-	-	-	-
Stage 2	89	89	-	105	105	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	763	699	947	763	699	966	1480	-	-	1500	-	-
Stage 1	898	806	-	916	819	-	-	-	-	-	-	-
Stage 2	916	819	-	898	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	763	699	947	763	699	966	1480	-	-	1500	-	-
Mov Cap-2 Maneuver	763	699	-	763	699	-	-	-	-	-	-	-
Stage 1	898	806	-	916	819	-	-	-	-	-	-	-
Stage 2	916	819	-	898	806	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	-	-	1500	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	327	150	195	596	240	170	314	155	251	404	140
Future Volume (veh/h)	150	327	150	195	596	240	170	314	155	251	404	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	190	414	190	247	754	304	215	397	196	318	511	177
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
Arrive On Green	0.11	0.34	0.34	0.15	0.38	0.38	0.06	0.24	0.24	0.11	0.29	0.29
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	190	414	190	247	754	304	215	397	196	318	511	177
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	12.0	21.2	10.1	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	10.1
Cycle Q Clear(g_c), s	12.0	21.2	10.1	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	10.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
V/C Ratio(X)	1.01	0.65	0.35	0.95	1.06	0.50	1.90	0.89	0.52	1.57	0.50	0.39
Avail Cap(c_a), veh/h	189	638	541	260	713	604	113	562	476	203	1247	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	31.5	27.9	47.9	35.0	26.8	53.0	41.5	37.3	50.1	33.3	32.1
Incr Delay (d2), s/veh	66.8	5.0	1.8	42.3	50.1	3.0	434.4	13.3	1.1	276.9	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	9.8	4.0	9.6	27.7	6.5	16.8	11.9	4.7	21.2	5.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.4	36.6	29.7	90.2	85.1	29.8	487.3	54.8	38.4	327.0	33.7	32.6
LnGrp LOS	F	D	C	F	F	C	F	D	D	F	C	C
Approach Vol, veh/h		794			1305			808			1006	
Approach Delay, s/veh		54.3			73.2			165.9			126.2	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	37.3	16.5	47.6	17.4	31.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	17.6	23.2	9.2	15.5	14.0	45.1	14.9	25.2
Green Ext Time (p_c), s	0.0	2.4	0.0	3.7	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	102.1
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	115	265	253	171	55	140	398	120	48	630	77
Future Volume (veh/h)	68	115	265	253	171	55	140	398	120	48	630	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	134	308	294	199	64	163	463	140	56	733	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	157	360	323	590	190	191	586	497	72	786	96
Arrive On Green	0.06	0.31	0.31	0.18	0.44	0.44	0.11	0.31	0.31	0.04	0.25	0.25
Sat Flow, veh/h	1781	504	1158	1781	1356	436	1781	1870	1585	1781	3186	391
Grp Volume(v), veh/h	79	0	442	294	0	263	163	463	140	56	409	414
Grp Sat Flow(s),veh/h/ln	1781	0	1662	1781	0	1792	1781	1870	1585	1781	1777	1800
Q Serve(g_s), s	5.1	0.0	29.1	18.9	0.0	11.3	10.5	26.3	7.8	3.6	26.2	26.2
Cycle Q Clear(g_c), s	5.1	0.0	29.1	18.9	0.0	11.3	10.5	26.3	7.8	3.6	26.2	26.2
Prop In Lane	1.00		0.70	1.00		0.24	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	101	0	516	323	0	780	191	586	497	72	438	444
V/C Ratio(X)	0.78	0.00	0.86	0.91	0.00	0.34	0.85	0.79	0.28	0.78	0.93	0.93
Avail Cap(c_a), veh/h	157	0	516	361	0	780	217	586	497	87	438	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	0.0	37.7	46.8	0.0	21.8	51.1	36.5	30.1	55.4	42.9	43.0
Incr Delay (d2), s/veh	12.6	0.0	16.5	25.0	0.0	1.2	24.5	10.4	1.4	29.6	29.0	28.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	13.7	10.3	0.0	4.8	5.8	13.2	3.1	2.2	14.6	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	0.0	54.2	71.8	0.0	22.9	75.6	46.9	31.5	85.0	72.0	71.9
LnGrp LOS	E	A	D	E	A	C	E	D	C	F	E	E
Approach Vol, veh/h		521			557			766			879	
Approach Delay, s/veh		56.1			48.7			50.2			72.8	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	40.7	17.0	33.2	11.1	55.2	9.2	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	10.9	31.1	12.5	28.2	7.1	13.3	5.6	28.3
Green Ext Time (p_c), s	0.2	1.2	0.1	0.0	0.0	1.5	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	58.3
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	247	45	168	282	143	227	504	162	329	786	101
Future Volume (veh/h)	51	247	45	168	282	143	227	504	162	329	786	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	287	52	195	328	166	264	586	188	383	914	117
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	992	443	221	1280	571	292	815	364	413	1057	472
Arrive On Green	0.04	0.28	0.28	0.12	0.36	0.36	0.16	0.23	0.23	0.23	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	59	287	52	195	328	166	264	586	188	383	914	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.3	8.4	3.2	14.3	8.6	9.9	19.3	20.2	13.7	27.9	32.2	7.4
Cycle Q Clear(g_c), s	4.3	8.4	3.2	14.3	8.6	9.9	19.3	20.2	13.7	27.9	32.2	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	992	443	221	1280	571	292	815	364	413	1057	472
V/C Ratio(X)	0.78	0.29	0.12	0.88	0.26	0.29	0.91	0.72	0.52	0.93	0.86	0.25
Avail Cap(c_a), veh/h	172	992	443	262	1280	571	375	965	431	531	1277	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.8	37.4	35.6	57.1	29.9	30.3	54.4	47.1	44.6	49.8	44.0	35.3
Incr Delay (d2), s/veh	15.3	0.7	0.5	25.1	0.5	1.3	21.2	2.1	1.1	19.7	5.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.6	1.3	7.7	3.6	3.9	10.1	8.9	5.4	14.3	14.5	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.1	38.2	36.1	82.3	30.4	31.6	75.6	49.2	45.8	69.5	49.6	35.6
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	D	D
Approach Vol, veh/h		398			689			1038			1414	
Approach Delay, s/veh		43.8			45.3			55.3			53.8	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	41.5	26.2	43.9	10.2	52.2	35.2	34.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	37.0	27.9	47.6	12.8	43.7	39.5	36.0
Max Q Clear Time (g_c+I1), s	16.3	10.4	21.3	34.2	6.3	11.9	29.9	22.2
Green Ext Time (p_c), s	0.1	1.7	0.4	5.2	0.0	2.4	0.8	3.6

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

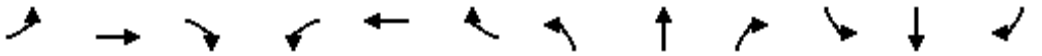
Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	5	79	10	3	139
Future Vol, veh/h	24	5	79	10	3	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	37	8	122	15	5	214

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	354	130	0	0	137	0
Stage 1	130	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	632	904	-	-	1411	-
Stage 1	881	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	629	904	-	-	1411	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	796	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	664	1411	-
HCM Lane V/C Ratio	-	-	0.067	0.003	-
HCM Control Delay (s)	-	-	10.8	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	813	5	61	762	0	16	0	36	0	0	0
Future Volume (veh/h)	40	813	5	61	762	0	16	0	36	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	884	5	66	828	0	17	0	39			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	435	2032	11	84	2299	0	97	0	223			
Arrive On Green	0.61	0.61	0.61	0.05	0.70	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	610	3336	19	1640	3358	0	458	0	1052			
Grp Volume(v), veh/h	43	434	455	66	828	0	56	0	0			
Grp Sat Flow(s),veh/h/ln	610	1636	1719	1640	1636	0	1510	0	0			
Q Serve(g_s), s	3.2	14.9	14.9	4.2	10.7	0.0	3.2	0.0	0.0			
Cycle Q Clear(g_c), s	4.0	14.9	14.9	4.2	10.7	0.0	3.2	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.30		0.70			
Lane Grp Cap(c), veh/h	435	996	1047	84	2299	0	321	0	0			
V/C Ratio(X)	0.10	0.44	0.44	0.79	0.36	0.00	0.17	0.00	0.00			
Avail Cap(c_a), veh/h	435	996	1047	302	2735	0	321	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.0	11.0	11.0	49.7	6.3	0.0	34.1	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.4	1.3	15.0	0.1	0.0	1.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.8	5.0	2.0	2.7	0.0	1.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.5	12.4	12.3	64.7	6.4	0.0	35.3	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		932			894			56				
Approach Delay, s/veh		12.2			10.7			35.3				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.9	69.0				78.9		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	6.2	16.9				12.7		5.2				
Green Ext Time (p_c), s	0.1	6.0				5.8		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			12.2									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	62	17	88	60	76	43	756	102	132	512	0
Future Volume (veh/h)	4	62	17	88	60	76	43	756	102	132	512	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	5	70	19	100	68	86	49	859	116	150	582	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	86	303	78	212	117	115	86	1315	586	196	1535	0
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.05	0.38	0.38	0.11	0.45	0.00
Sat Flow, veh/h	30	1354	351	484	521	515	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	94	0	0	254	0	0	49	859	116	150	582	0
Grp Sat Flow(s),veh/h/ln	1734	0	0	1520	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	1.3	9.9	2.4	4.1	5.4	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	7.4	0.0	0.0	1.3	9.9	2.4	4.1	5.4	0.0
Prop In Lane	0.05		0.20	0.39		0.34	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	467	0	0	444	0	0	86	1315	586	196	1535	0
V/C Ratio(X)	0.20	0.00	0.00	0.57	0.00	0.00	0.57	0.65	0.20	0.76	0.38	0.00
Avail Cap(c_a), veh/h	1023	0	0	926	0	0	591	4398	1961	663	4541	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.3	0.0	0.0	17.3	0.0	0.0	22.4	12.2	9.9	20.7	8.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.2	0.0	0.0	5.8	0.6	0.2	6.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	2.4	0.0	0.0	0.6	2.5	0.6	1.6	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	0.0	18.4	0.0	0.0	28.1	12.8	10.1	26.8	9.0	0.0
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	A	A
Approach Vol, veh/h		94			254			1024			732	
Approach Delay, s/veh		15.5			18.4			13.2			12.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	15.3	6.9	26.0	15.3	10.0	22.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	16.5	63.5	26.5	18.5	61.5
Max Q Clear Time (g_c+I1), s	4.1	3.3	7.4	9.4	6.1	11.9
Green Ext Time (p_c), s	0.4	0.1	3.7	1.4	0.3	6.5

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	445	121	117	354	128	210	695	172	106	450	270
Future Volume (veh/h)	285	445	121	117	354	128	210	695	172	106	450	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	297	464	126	122	369	133	219	724	179	110	469	281
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	329	1074	479	151	719	321	249	1097	489	135	523	312
Arrive On Green	0.20	0.33	0.33	0.09	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	297	464	126	122	369	133	219	724	179	110	389	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	18.6	11.7	6.7	7.7	10.4	8.2	13.7	19.9	9.8	6.9	24.1	24.3
Cycle Q Clear(g_c), s	18.6	11.7	6.7	7.7	10.4	8.2	13.7	19.9	9.8	6.9	24.1	24.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	329	1074	479	151	719	321	249	1097	489	135	434	401
V/C Ratio(X)	0.90	0.43	0.26	0.81	0.51	0.41	0.88	0.66	0.37	0.82	0.90	0.90
Avail Cap(c_a), veh/h	429	1074	479	429	719	321	326	1235	551	182	475	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	28.1	26.4	47.3	36.5	35.7	44.1	30.3	26.9	47.9	37.7	37.7
Incr Delay (d2), s/veh	18.6	1.3	1.3	9.9	2.6	3.9	18.9	1.1	0.5	18.3	18.3	20.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	4.5	2.4	3.4	4.2	3.1	6.6	7.4	3.3	3.4	11.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	29.3	27.7	57.2	39.1	39.6	63.0	31.4	27.4	66.2	55.9	58.1
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		887			624			1122			860	
Approach Delay, s/veh		39.4			42.8			36.9			58.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	39.0	20.5	32.4	25.6	27.6	13.1	39.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	9.7	13.7	15.7	26.3	20.6	12.4	8.9	21.9
Green Ext Time (p_c), s	0.2	2.1	0.3	1.6	0.5	1.8	0.1	4.6

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	2	161	40	0	15	95	902	32	6	724	50
Future Volume (veh/h)	108	2	161	40	0	15	95	902	32	6	724	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	110	2	164	41	0	15	97	920	33	6	739	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	125	1418	633	56	1281	571	121	1118	499	13	901	402
Arrive On Green	0.08	0.43	0.43	0.03	0.00	0.39	0.07	0.34	0.34	0.01	0.28	0.28
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	110	2	164	41	0	15	97	920	33	6	739	51
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.5	0.0	7.1	2.4	0.0	0.6	5.7	25.3	1.5	0.4	20.8	2.6
Cycle Q Clear(g_c), s	6.5	0.0	7.1	2.4	0.0	0.6	5.7	25.3	1.5	0.4	20.8	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	1418	633	56	1281	571	121	1118	499	13	901	402
V/C Ratio(X)	0.88	0.00	0.26	0.73	0.00	0.03	0.80	0.82	0.07	0.48	0.82	0.13
Avail Cap(c_a), veh/h	125	1418	633	108	1281	571	258	1647	734	108	1347	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	15.8	17.8	47.0	0.0	18.4	44.8	29.7	21.8	48.6	33.4	26.8
Incr Delay (d2), s/veh	46.1	0.0	1.0	16.5	0.0	0.1	11.3	2.2	0.1	25.3	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	2.3	1.2	0.0	0.2	2.6	9.3	0.5	0.2	7.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.1	15.8	18.8	63.5	0.0	18.5	56.1	31.9	21.9	73.9	35.9	26.9
LnGrp LOS	F	B	B	E	A	B	E	C	C	E	D	C
Approach Vol, veh/h		276			56			1050			796	
Approach Delay, s/veh		47.6			51.5			33.8			35.7	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	47.1	11.8	31.6	12.0	43.0	5.3	38.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.4	9.1	7.7	22.8	8.5	2.6	2.4	27.3
Green Ext Time (p_c), s	0.0	0.6	0.1	4.3	0.0	0.0	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	876	3	1	987	32
Future Volume (veh/h)	149	0	252	7	0	3	61	876	3	1	987	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1081	4	1	1219	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	426	0	377	136	15	26	94	1839	7	3	1616	721
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.06	0.54	0.54	0.00	0.49	0.49
Sat Flow, veh/h	1323	0	1485	172	61	103	1668	3401	13	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	529	556	1	1219	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	335	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	13.1	0.1	0.0	0.0	2.9	14.2	14.2	0.0	19.7	0.9
Cycle Q Clear(g_c), s	8.7	0.0	13.1	13.2	0.0	0.0	2.9	14.2	14.2	0.0	19.7	0.9
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	426	0	377	177	0	0	94	900	946	3	1616	721
V/C Ratio(X)	0.43	0.00	0.82	0.07	0.00	0.00	0.80	0.59	0.59	0.40	0.75	0.06
Avail Cap(c_a), veh/h	559	0	527	289	0	0	126	1821	1915	264	3919	1748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	23.3	19.7	0.0	0.0	30.9	10.2	10.2	33.0	13.8	9.0
Incr Delay (d2), s/veh	0.7	0.0	7.3	0.2	0.0	0.0	22.0	0.6	0.6	78.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.0	0.2	0.0	0.0	1.6	3.6	3.8	0.1	5.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	0.0	30.6	19.9	0.0	0.0	52.8	10.9	10.8	111.8	14.6	9.0
LnGrp LOS	C	A	C	B	A	A	D	B	B	F	B	A
Approach Vol, veh/h		495			13			1160			1260	
Approach Delay, s/veh		27.5			19.9			13.6			14.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	21.3	8.2	36.7	21.3	4.6	40.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	5.0	78.0	23.5	10.5	72.5
Max Q Clear Time (g_c+I1), s	15.1	4.9	21.7	15.2	2.0	16.2
Green Ext Time (p_c), s	1.8	0.0	10.5	0.0	0.0	7.3

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	243	245	86	164	193	169	700	65	262	838	99
Future Volume (veh/h)	101	243	245	86	164	193	169	700	65	262	838	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	107	259	261	91	174	205	180	745	69	279	891	105
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	129	1160	517	112	1125	502	204	853	380	303	1050	468
Arrive On Green	0.08	0.35	0.35	0.07	0.34	0.34	0.12	0.26	0.26	0.18	0.32	0.32
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	107	259	261	91	174	205	180	745	69	279	891	105
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	7.8	6.7	17.1	6.6	4.5	13.0	13.0	26.3	4.4	20.2	30.7	6.4
Cycle Q Clear(g_c), s	7.8	6.7	17.1	6.6	4.5	13.0	13.0	26.3	4.4	20.2	30.7	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	1160	517	112	1125	502	204	853	380	303	1050	468
V/C Ratio(X)	0.83	0.22	0.50	0.81	0.15	0.41	0.88	0.87	0.18	0.92	0.85	0.22
Avail Cap(c_a), veh/h	136	1160	517	141	1125	502	211	1003	448	319	1134	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	28.2	31.6	56.5	28.4	31.2	53.0	43.7	35.6	49.4	39.3	31.0
Incr Delay (d2), s/veh	31.6	0.4	3.5	23.9	0.3	2.5	31.8	7.7	0.2	30.1	5.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.7	6.3	3.4	1.8	4.8	7.1	11.3	1.6	10.5	12.6	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.5	28.7	35.1	80.4	28.7	33.6	84.8	51.4	35.8	79.4	45.2	31.2
LnGrp LOS	F	C	D	F	C	C	F	D	D	E	D	C
Approach Vol, veh/h		627			470			994			1275	
Approach Delay, s/veh		41.4			40.8			56.4			51.5	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.3	19.5	43.2	14.0	46.0	26.8	35.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	15.5	41.8	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	9.6	19.1	15.0	32.7	9.8	15.0	22.2	28.3
Green Ext Time (p_c), s	0.0	2.3	0.0	3.8	0.0	1.6	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	49.6
HCM 6th LOS	D

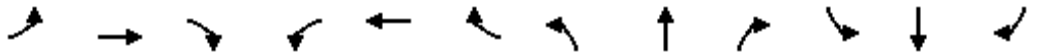
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Future Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	0	20	2	0	0	8	191	1	0	191	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	20	0	0	259	134	10	230	144	0
Stage 1	-	-	-	-	-	-	130	130	-	4	4	-
Stage 2	-	-	-	-	-	-	129	4	-	226	140	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	-	-	-	1570	-	-	686	749	1060	717	740	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	885	-
Stage 2	-	-	-	-	-	-	865	885	-	768	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1570	-	-	-	748	1060	575	739	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	748	-	575	739	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	884	-
Stage 2	-	-	-	-	-	-	678	884	-	580	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1570	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	-	-	-	7.3	0	-	-
HCM Lane LOS	-	-	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	598	51	27	377	128	56	62	27	116	65	118
Future Volume (veh/h)	85	598	51	27	377	128	56	62	27	116	65	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	89	629	54	28	397	135	59	65	28	122	68	124
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	139	1087	485	58	926	413	265	257	88	269	130	174
Arrive On Green	0.08	0.32	0.32	0.03	0.27	0.27	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	454	887	303	469	450	600
Grp Volume(v), veh/h	89	629	54	28	397	135	152	0	0	314	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1644	0	0	1518	0	0
Q Serve(g_s), s	1.9	5.7	0.9	0.6	3.6	2.6	0.0	0.0	0.0	4.2	0.0	0.0
Cycle Q Clear(g_c), s	1.9	5.7	0.9	0.6	3.6	2.6	2.5	0.0	0.0	6.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.39		0.18	0.39		0.39
Lane Grp Cap(c), veh/h	139	1087	485	58	926	413	610	0	0	573	0	0
V/C Ratio(X)	0.64	0.58	0.11	0.48	0.43	0.33	0.25	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	1245	3633	1620	1245	3633	1620	1735	0	0	1711	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.7	10.7	9.1	17.8	11.3	11.0	10.3	0.0	0.0	11.7	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.5	0.1	6.0	0.3	0.5	0.2	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	0.2	0.3	0.8	0.6	0.8	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	11.2	9.2	23.8	11.6	11.4	10.5	0.0	0.0	12.5	0.0	0.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		772			560			152			314	
Approach Delay, s/veh		12.2			12.2			10.5			12.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	16.3		15.3	7.5	14.6		15.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.6	7.7		8.7	3.9	5.6		4.5				
Green Ext Time (p_c), s	0.0	4.1		2.2	0.2	2.8		1.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.1	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	421	40	56	275	60	40	66	121	179	151	103
Future Volume (veh/h)	50	421	40	56	275	60	40	66	121	179	151	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	65	547	52	73	357	78	52	86	157	232	196	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	142	730	69	147	803	358	143	237	384	310	233	154
Arrive On Green	0.08	0.24	0.24	0.09	0.24	0.24	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1682	3098	294	1682	3357	1497	203	479	776	523	471	311
Grp Volume(v), veh/h	65	296	303	73	357	78	295	0	0	562	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1714	1682	1678	1497	1459	0	0	1306	0	0
Q Serve(g_s), s	3.6	16.1	16.2	4.1	8.9	4.1	0.0	0.0	0.0	26.8	0.0	0.0
Cycle Q Clear(g_c), s	3.6	16.1	16.2	4.1	8.9	4.1	11.5	0.0	0.0	38.3	0.0	0.0
Prop In Lane	1.00		0.17	1.00		1.00	0.18		0.53	0.41		0.24
Lane Grp Cap(c), veh/h	142	396	404	147	803	358	764	0	0	697	0	0
V/C Ratio(X)	0.46	0.75	0.75	0.50	0.44	0.22	0.39	0.00	0.00	0.81	0.00	0.00
Avail Cap(c_a), veh/h	184	502	512	196	1027	458	941	0	0	864	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.0	35.0	35.0	42.9	32.0	30.1	15.5	0.0	0.0	22.8	0.0	0.0
Incr Delay (d2), s/veh	2.3	10.2	10.2	2.6	1.4	1.1	1.2	0.0	0.0	8.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.2	7.4	1.7	3.5	1.5	4.1	0.0	0.0	12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	45.2	45.2	45.5	33.4	31.2	16.6	0.0	0.0	31.1	0.0	0.0
LnGrp LOS	D	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		664			508			295			562	
Approach Delay, s/veh		45.2			34.8			16.6			31.1	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	30.3		55.8	12.3	30.6		55.8				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	6.1	18.2		13.5	5.6	10.9		40.3				
Green Ext Time (p_c), s	0.1	5.0		5.3	0.0	5.0		8.5				

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1634	-	-	-	1026	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1634	-	-	-	1026	1088
Mov Cap-2 Maneuver	-	-	-	-	1026	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1634	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	766	2	7	535	5	7	0	9	4	0	0
Future Vol, veh/h	0	766	2	7	535	5	7	0	9	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	806	2	7	563	5	7	0	9	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	568	0	0	808	0	0	1103	1389	404	983	1388	284
Stage 1	-	-	-	-	-	-	807	807	-	580	580	-
Stage 2	-	-	-	-	-	-	296	582	-	403	808	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	953	-	-	769	-	-	157	133	577	193	133	692
Stage 1	-	-	-	-	-	-	327	376	-	450	481	-
Stage 2	-	-	-	-	-	-	669	480	-	576	376	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	953	-	-	769	-	-	156	132	577	189	132	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	132	-	189	132	-
Stage 1	-	-	-	-	-	-	327	376	-	450	477	-
Stage 2	-	-	-	-	-	-	663	476	-	567	376	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19.5	24.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	953	-	-	769	-	-	189
HCM Lane V/C Ratio	0.064	-	-	-	0.01	-	-	0.022
HCM Control Delay (s)	19.5	0	-	-	9.7	-	-	24.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	9	146	31	19	26	8	16	90	43	11	39	7
Future Vol, veh/h	9	146	31	19	26	8	16	90	43	11	39	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	192	41	25	34	11	21	118	57	14	51	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	8.5	9.3	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	5%	36%	19%
Vol Thru, %	60%	78%	49%	68%
Vol Right, %	29%	17%	15%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	186	53	57
LT Vol	16	9	19	11
Through Vol	90	146	26	39
RT Vol	43	31	8	7
Lane Flow Rate	196	245	70	75
Geometry Grp	1	1	1	1
Degree of Util (X)	0.254	0.314	0.095	0.103
Departure Headway (Hd)	4.659	4.614	4.896	4.925
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	769	776	729	725
Service Time	2.704	2.655	2.949	2.978
HCM Lane V/C Ratio	0.255	0.316	0.096	0.103
HCM Control Delay	9.3	9.8	8.5	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.3	0.3	0.3

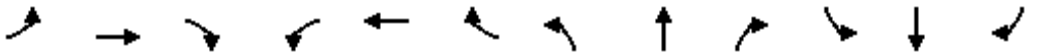
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	161	0	0	118	0
Future Vol, veh/h	0	0	0	0	0	0	0	161	0	0	118	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	0	0	0	0	179	0	0	131	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	310	310	131	310	310	179	131	0	0	179	0	0
Stage 1	131	131	-	179	179	-	-	-	-	-	-	-
Stage 2	179	179	-	131	131	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	629	593	900	629	593	846	1412	-	-	1355	-	-
Stage 1	856	775	-	807	738	-	-	-	-	-	-	-
Stage 2	807	738	-	856	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	629	593	900	629	593	846	1412	-	-	1355	-	-
Mov Cap-2 Maneuver	629	593	-	629	593	-	-	-	-	-	-	-
Stage 1	856	775	-	807	738	-	-	-	-	-	-	-
Stage 2	807	738	-	856	775	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1412	-	-	-	-	1355	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	579	151	174	379	200	146	354	177	121	233	44
Future Volume (veh/h)	95	579	151	174	379	200	146	354	177	121	233	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	104	636	166	191	416	220	160	389	195	133	256	48
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	940	419	241	1149	512	207	718	320	174	343	291
Arrive On Green	0.08	0.27	0.27	0.14	0.33	0.33	0.12	0.20	0.20	0.10	0.19	0.19
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	104	636	166	191	416	220	160	389	195	133	256	48
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1856	1572
Q Serve(g_s), s	3.5	9.9	5.3	6.4	5.5	6.7	5.4	6.0	6.9	4.5	8.0	1.6
Cycle Q Clear(g_c), s	3.5	9.9	5.3	6.4	5.5	6.7	5.4	6.0	6.9	4.5	8.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	940	419	241	1149	512	207	718	320	174	343	291
V/C Ratio(X)	0.77	0.68	0.40	0.79	0.36	0.43	0.77	0.54	0.61	0.76	0.75	0.16
Avail Cap(c_a), veh/h	449	2224	992	449	2224	992	565	1646	734	565	867	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	20.0	18.4	25.5	15.7	16.1	26.1	21.7	22.1	26.8	23.5	20.9
Incr Delay (d2), s/veh	8.6	0.9	0.6	5.8	0.2	0.6	6.0	0.6	1.9	6.8	3.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.4	1.7	2.7	1.8	2.1	2.3	2.2	2.4	2.0	3.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	20.9	19.0	31.4	15.9	16.7	32.2	22.4	24.0	33.6	26.7	21.2
LnGrp LOS	D	C	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		906			827			744			437	
Approach Delay, s/veh		22.3			19.7			24.9			28.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	20.8	11.7	15.8	9.2	24.4	10.5	16.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	8.4	11.9	7.4	10.0	5.5	8.7	6.5	8.9
Green Ext Time (p_c), s	0.3	4.4	0.3	1.3	0.1	3.1	0.2	2.8

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	121.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	46	101	71	4	88	55	551	105	81	528	9
Future Vol, veh/h	78	46	101	71	4	88	55	551	105	81	528	9
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	104	61	135	95	5	117	73	735	140	108	704	12
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	76.3	22.7	153.6	128
HCM LOS	F	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	35%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	64%	20%	0%	4%	0%	100%	95%
Vol Right, %	0%	0%	36%	45%	0%	96%	0%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	367	289	225	71	92	81	352	185
LT Vol	55	0	0	78	71	0	81	0	0
Through Vol	0	367	184	46	0	4	0	352	176
RT Vol	0	0	105	101	0	88	0	0	9
Lane Flow Rate	73	490	385	300	95	123	108	469	247
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.217	1.381	1.058	0.946	0.328	0.385	0.323	1.34	0.702
Departure Headway (Hd)	11.285	10.756	10.486	12.319	13.574	12.341	11.416	10.888	10.852
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	320	343	350	297	267	293	316	338	335
Service Time	8.985	8.456	8.186	10.019	11.274	10.041	9.116	8.588	8.552
HCM Lane V/C Ratio	0.228	1.429	1.1	1.01	0.356	0.42	0.342	1.388	0.737
HCM Control Delay	17.1	217.6	98.1	76.3	22.8	22.6	19.5	201.5	35.5
HCM Lane LOS	C	F	F	F	C	C	C	F	E
HCM 95th-tile Q	0.8	23.4	13	9.2	1.4	1.7	1.4	21.7	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	33	254	99	25	3	88	575	192	12	638	53
Future Volume (veh/h)	119	33	254	99	25	3	88	575	192	12	638	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	142	39	302	118	30	4	105	685	229	14	760	63
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	184	436	369	152	402	341	136	1283	572	30	1072	478
Arrive On Green	0.11	0.24	0.24	0.09	0.22	0.22	0.08	0.37	0.37	0.02	0.31	0.31
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	142	39	302	118	30	4	105	685	229	14	760	63
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.9	1.0	11.3	4.1	0.8	0.1	3.6	9.5	6.7	0.5	11.9	1.8
Cycle Q Clear(g_c), s	4.9	1.0	11.3	4.1	0.8	0.1	3.6	9.5	6.7	0.5	11.9	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	436	369	152	402	341	136	1283	572	30	1072	478
V/C Ratio(X)	0.77	0.09	0.82	0.78	0.07	0.01	0.77	0.53	0.40	0.46	0.71	0.13
Avail Cap(c_a), veh/h	498	1315	1115	299	1106	937	356	2414	1077	142	1988	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	18.3	22.2	27.5	19.1	18.9	27.9	15.3	14.5	30.0	18.9	15.4
Incr Delay (d2), s/veh	6.6	0.1	4.5	8.2	0.1	0.0	8.9	0.3	0.5	10.5	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.4	4.1	2.0	0.3	0.0	1.7	3.2	2.1	0.3	4.2	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	18.4	26.7	35.7	19.2	18.9	36.7	15.7	14.9	40.5	19.8	15.6
LnGrp LOS	C	B	C	D	B	B	D	B	B	D	B	B
Approach Vol, veh/h		483			152			1019			837	
Approach Delay, s/veh		28.0			32.0			17.7			19.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	19.1	9.3	23.4	11.0	17.9	5.6	27.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	6.1	13.3	5.6	13.9	6.9	2.8	2.5	11.5
Green Ext Time (p_c), s	0.1	1.3	0.1	5.0	0.2	0.1	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	430	246	48	228	101	111	500	83	130	713	93
Future Volume (veh/h)	153	430	246	48	228	101	111	500	83	130	713	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	178	500	286	56	265	117	129	581	97	151	829	108
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	212	813	463	71	1043	465	158	999	446	184	1052	469
Arrive On Green	0.12	0.38	0.38	0.04	0.30	0.30	0.09	0.29	0.29	0.11	0.30	0.30
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	178	407	379	56	265	117	129	581	97	151	829	108
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	9.8	18.6	18.7	3.1	5.7	5.6	7.2	14.1	4.7	8.4	21.5	5.1
Cycle Q Clear(g_c), s	9.8	18.6	18.7	3.1	5.7	5.6	7.2	14.1	4.7	8.4	21.5	5.1
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	662	614	71	1043	465	158	999	446	184	1052	469
V/C Ratio(X)	0.84	0.61	0.62	0.79	0.25	0.25	0.82	0.58	0.22	0.82	0.79	0.23
Avail Cap(c_a), veh/h	333	662	614	89	1043	465	177	1420	633	342	1748	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	24.5	24.6	46.7	26.0	26.0	43.9	29.9	26.6	43.0	31.3	25.6
Incr Delay (d2), s/veh	10.5	4.2	4.6	30.1	0.6	1.3	23.0	0.5	0.2	8.6	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	7.6	7.2	1.9	2.2	2.2	4.0	5.7	1.7	3.9	8.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	28.8	29.2	76.8	26.6	27.3	66.9	30.4	26.8	51.6	32.7	25.9
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		964			438			807			1088	
Approach Delay, s/veh		33.3			33.2			35.8			34.6	
Approach LOS		C			C			D			C	

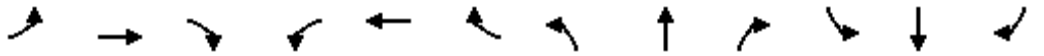
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	42.0	13.4	34.3	16.5	34.0	14.9	32.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	5.1	20.7	9.2	23.5	11.8	7.7	10.4	16.1
Green Ext Time (p_c), s	0.0	4.0	0.0	6.3	0.2	1.6	0.2	4.1

Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	56	79	700	123	83	910
Future Volume (veh/h)	56	79	700	123	83	910
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	62	88	778	137	92	1011
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1775	312	116	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3089	527	1767	3618
Grp Volume(v), veh/h	62	88	458	457	92	1011
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1761	1767	1763
Q Serve(g_s), s	3.4	5.5	17.2	17.2	6.2	14.7
Cycle Q Clear(g_c), s	3.4	5.5	17.2	17.2	6.2	14.7
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	405	360	1044	1043	116	2453
V/C Ratio(X)	0.15	0.24	0.44	0.44	0.79	0.41
Avail Cap(c_a), veh/h	405	360	1044	1043	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	37.8	13.5	13.5	55.2	7.8
Incr Delay (d2), s/veh	0.8	1.6	1.3	1.3	11.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.4	6.7	6.7	3.0	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.7	39.4	14.8	14.8	66.4	8.3
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	150		915			1103
Approach Delay, s/veh	38.7		14.8			13.1
Approach LOS	D		B			B

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		88.0		32.0	12.4	75.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s		16.7		7.5	8.2	19.2
Green Ext Time (p_c), s		8.3		0.4	0.1	6.5

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	880	48	60	961	70	37	29	103	50	18	12
Future Volume (veh/h)	17	880	48	60	961	70	37	29	103	50	18	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	18	967	53	66	1056	76	41	32	113	54	20	13
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	152	1544	85	99	1418	102	151	48	168	89	102	66
Arrive On Green	0.09	0.45	0.45	0.06	0.43	0.43	0.09	0.13	0.13	0.05	0.10	0.10
Sat Flow, veh/h	1781	3399	186	1767	3335	240	1767	362	1278	1781	1058	688
Grp Volume(v), veh/h	18	502	518	66	558	574	41	0	145	54	0	33
Grp Sat Flow(s),veh/h/ln	1781	1763	1822	1767	1763	1812	1767	0	1640	1781	0	1747
Q Serve(g_s), s	0.5	12.7	12.7	2.1	15.6	15.6	1.3	0.0	4.9	1.7	0.0	1.0
Cycle Q Clear(g_c), s	0.5	12.7	12.7	2.1	15.6	15.6	1.3	0.0	4.9	1.7	0.0	1.0
Prop In Lane	1.00		0.10	1.00		0.13	1.00		0.78	1.00		0.39
Lane Grp Cap(c), veh/h	152	801	828	99	749	770	151	0	216	89	0	168
V/C Ratio(X)	0.12	0.63	0.63	0.66	0.74	0.75	0.27	0.00	0.67	0.61	0.00	0.20
Avail Cap(c_a), veh/h	552	1674	1730	311	1438	1479	547	0	769	268	0	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	12.2	12.2	27.0	14.1	14.1	25.0	0.0	24.2	27.2	0.0	24.3
Incr Delay (d2), s/veh	0.3	0.8	0.8	7.4	1.5	1.5	1.0	0.0	3.6	6.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.6	3.7	1.0	4.7	4.8	0.5	0.0	2.0	0.9	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	13.0	12.9	34.4	15.6	15.6	26.0	0.0	27.8	33.7	0.0	24.9
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1038			1198			186			87	
Approach Delay, s/veh		13.2			16.6			27.4			30.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	31.1	9.5	10.1	9.5	29.3	7.4	12.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.3	55.5	18.1	18.1	18.1	47.7	8.8	27.4
Max Q Clear Time (g_c+I1), s	4.1	14.7	3.3	3.0	2.5	17.6	3.7	6.9
Green Ext Time (p_c), s	0.0	6.5	0.1	0.1	0.0	7.3	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	194	7	97	137	40	4	69	159	21	40	9
Future Vol, veh/h	25	194	7	97	137	40	4	69	159	21	40	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	29	223	8	111	157	46	5	79	183	24	46	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	203	0	0	231	0	0	715	710	227	818	691	180
Stage 1	-	-	-	-	-	-	285	285	-	402	402	-
Stage 2	-	-	-	-	-	-	430	425	-	416	289	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1375	-	-	1343	-	-	347	360	815	296	369	865
Stage 1	-	-	-	-	-	-	724	678	-	627	602	-
Stage 2	-	-	-	-	-	-	605	588	-	616	675	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1375	-	-	1343	-	-	283	323	815	172	331	865
Mov Cap-2 Maneuver	-	-	-	-	-	-	283	323	-	172	331	-
Stage 1	-	-	-	-	-	-	709	664	-	614	552	-
Stage 2	-	-	-	-	-	-	503	539	-	412	661	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2.8	17	23.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	283	558	1375	-	-	1343	-	-	276
HCM Lane V/C Ratio	0.016	0.47	0.021	-	-	0.083	-	-	0.292
HCM Control Delay (s)	17.9	17	7.7	-	-	7.9	-	-	23.3
HCM Lane LOS	C	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	2.5	0.1	-	-	0.3	-	-	1.2

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	120	71	69	63	1	46	0	64	0	1	1
Future Vol, veh/h	0	120	71	69	63	1	46	0	64	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	135	80	78	71	1	52	0	72	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	215	0	0	404	403	175	439	443	72
Stage 1	-	-	-	-	-	-	175	175	-	228	228	-
Stage 2	-	-	-	-	-	-	229	228	-	211	215	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1534	-	-	1361	-	-	559	538	871	530	511	993
Stage 1	-	-	-	-	-	-	829	756	-	777	717	-
Stage 2	-	-	-	-	-	-	776	717	-	793	727	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1361	-	-	532	506	871	464	480	993
Mov Cap-2 Maneuver	-	-	-	-	-	-	532	506	-	464	480	-
Stage 1	-	-	-	-	-	-	829	756	-	777	674	-
Stage 2	-	-	-	-	-	-	727	674	-	728	727	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4	11.4	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	688	1534	-	-	1361	-	-	647
HCM Lane V/C Ratio	0.18	-	-	-	0.057	-	-	0.003
HCM Control Delay (s)	11.4	0	-	-	7.8	0	-	10.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	0

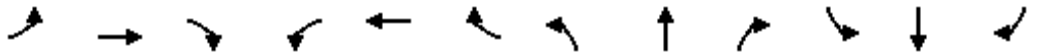
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	14	0	0	0	124	0	0	106	0
Future Vol, veh/h	0	0	0	14	0	0	0	124	0	0	106	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	0	0	133	0	0	114	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	247	247	114	247	247	133	114	0	0	133	0	0
Stage 1	114	114	-	133	133	-	-	-	-	-	-	-
Stage 2	133	133	-	114	114	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	711	659	944	711	659	922	1488	-	-	1464	-	-
Stage 1	896	805	-	875	790	-	-	-	-	-	-	-
Stage 2	875	790	-	896	805	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	711	659	944	711	659	922	1488	-	-	1464	-	-
Mov Cap-2 Maneuver	711	659	-	711	659	-	-	-	-	-	-	-
Stage 1	896	805	-	875	790	-	-	-	-	-	-	-
Stage 2	875	790	-	896	805	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.2	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	-	711	1464	-	-
HCM Lane V/C Ratio	-	-	-	-	0.021	-	-	-
HCM Control Delay (s)	0	-	-	0	10.2	0	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	662	310	112	580	117	419	257	188	116	137	92
Future Volume (veh/h)	63	662	310	112	580	117	419	257	188	116	137	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	720	337	122	630	127	455	279	204	126	149	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	937	794	152	1005	852	119	343	291	89	592	264
Arrive On Green	0.05	0.50	0.50	0.09	0.54	0.54	0.07	0.18	0.18	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	68	720	337	122	630	127	455	279	204	126	149	100
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	3.8	31.2	13.5	6.7	23.5	4.0	6.7	14.3	12.1	5.0	3.6	5.6
Cycle Q Clear(g_c), s	3.8	31.2	13.5	6.7	23.5	4.0	6.7	14.3	12.1	5.0	3.6	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	937	794	152	1005	852	119	343	291	89	592	264
V/C Ratio(X)	0.78	0.77	0.42	0.80	0.63	0.15	3.81	0.81	0.70	1.41	0.25	0.38
Avail Cap(c_a), veh/h	118	937	794	273	1005	852	119	687	582	89	1244	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	20.3	15.8	44.9	16.1	11.6	46.6	39.2	38.2	47.5	36.2	37.1
Incr Delay (d2), s/veh	20.3	6.0	1.7	9.3	3.0	0.4	1285.0	4.7	3.1	239.9	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	13.1	4.8	3.2	9.2	1.4	45.5	6.7	4.7	8.1	1.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	26.3	17.5	54.1	19.1	12.0	1331.6	43.8	41.3	287.4	36.5	37.9
LnGrp LOS	E	C	B	D	B	B	F	D	D	F	D	D
Approach Vol, veh/h		1125			879			938			375	
Approach Delay, s/veh		26.1			22.9			667.9			121.2	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	54.6	11.2	21.2	9.4	58.2	9.5	22.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.7	33.2	8.7	7.6	5.8	25.5	7.0	16.3
Green Ext Time (p_c), s	0.1	4.3	0.0	1.1	0.0	4.2	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	217.5
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	148	130	108	135	39	216	542	252	37	334	34
Future Volume (veh/h)	37	148	130	108	135	39	216	542	252	37	334	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	157	138	115	144	41	230	577	268	39	355	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	311	273	142	542	154	262	737	625	55	907	91
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.28	0.28
Sat Flow, veh/h	1781	918	807	1781	1400	399	1781	1870	1585	1781	3260	329
Grp Volume(v), veh/h	39	0	295	115	0	185	230	577	268	39	193	198
Grp Sat Flow(s),veh/h/ln	1781	0	1725	1781	0	1799	1781	1870	1585	1781	1777	1811
Q Serve(g_s), s	2.5	0.0	15.7	7.3	0.0	8.1	14.5	31.0	14.1	2.5	10.1	10.2
Cycle Q Clear(g_c), s	2.5	0.0	15.7	7.3	0.0	8.1	14.5	31.0	14.1	2.5	10.1	10.2
Prop In Lane	1.00		0.47	1.00		0.22	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	55	0	584	142	0	696	262	737	625	55	494	504
V/C Ratio(X)	0.71	0.00	0.51	0.81	0.00	0.27	0.88	0.78	0.43	0.71	0.39	0.39
Avail Cap(c_a), veh/h	95	0	584	210	0	696	365	737	625	98	494	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	30.3	51.9	0.0	24.0	47.9	30.5	25.3	55.1	33.5	33.6
Incr Delay (d2), s/veh	15.2	0.0	3.1	13.7	0.0	0.9	16.2	8.1	2.1	15.2	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	6.7	3.7	0.0	3.5	7.4	14.8	5.4	1.3	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	0.0	33.4	65.6	0.0	25.0	64.2	38.6	27.5	70.2	35.8	35.9
LnGrp LOS	E	A	C	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		334			300			1075			430	
Approach Delay, s/veh		37.7			40.6			41.3			39.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.3	21.3	36.4	8.1	48.9	8.1	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	17.7	16.5	12.2	4.5	10.1	4.5	33.0
Green Ext Time (p_c), s	0.1	1.5	0.3	1.8	0.0	1.0	0.0	3.5

Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	421	83	111	233	235	188	853	149	228	458	70
Future Volume (veh/h)	134	421	83	111	233	235	188	853	149	228	458	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	430	85	113	238	240	192	870	152	233	467	71
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1170	522	140	1120	500	223	1036	462	266	1121	500
Arrive On Green	0.09	0.33	0.33	0.08	0.32	0.32	0.13	0.29	0.29	0.15	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	137	430	85	113	238	240	192	870	152	233	467	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.0	11.0	4.5	7.4	5.8	14.5	12.6	27.3	8.9	15.2	12.3	3.8
Cycle Q Clear(g_c), s	9.0	11.0	4.5	7.4	5.8	14.5	12.6	27.3	8.9	15.2	12.3	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	1170	522	140	1120	500	223	1036	462	266	1121	500
V/C Ratio(X)	0.83	0.37	0.16	0.81	0.21	0.48	0.86	0.84	0.33	0.88	0.42	0.14
Avail Cap(c_a), veh/h	262	1170	522	265	1120	500	389	1329	593	487	1523	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	30.4	28.3	53.9	29.9	32.9	51.0	39.5	33.0	49.5	32.1	29.2
Incr Delay (d2), s/veh	11.6	0.9	0.7	10.5	0.4	3.3	9.3	4.0	0.4	8.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.6	1.8	3.6	2.4	5.8	6.0	12.0	3.4	7.2	5.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	31.3	28.9	64.4	30.3	36.2	60.3	43.5	33.4	58.5	32.3	29.3
LnGrp LOS	E	C	C	E	C	D	E	D	C	E	C	C
Approach Vol, veh/h		652			591			1214			771	
Approach Delay, s/veh		38.0			39.2			44.9			40.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	43.7	19.4	42.0	15.5	42.0	22.3	39.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	37.3	26.0	51.0	17.5	37.5	32.5	44.5
Max Q Clear Time (g_c+I1), s	9.4	13.0	14.6	14.3	11.0	16.5	17.2	29.3
Green Ext Time (p_c), s	0.1	2.7	0.4	3.2	0.2	2.0	0.5	5.4

Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

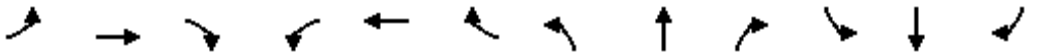
Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	6	133	28	7	97
Future Vol, veh/h	21	6	133	28	7	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	23	7	148	31	8	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	288	164	0	0	179	0
Stage 1	164	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	688	863	-	-	1355	-
Stage 1	848	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	684	863	-	-	1355	-
Mov Cap-2 Maneuver	684	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	879	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	717	1355	-
HCM Lane V/C Ratio	-	-	0.042	0.006	-
HCM Control Delay (s)	-	-	10.2	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	906	10	29	755	0	6	0	70	0	0	0
Future Volume (veh/h)	39	906	10	29	755	0	6	0	70	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	964	11	31	803	0	6	0	74			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	420	2000	23	44	2193	0	25	0	306			
Arrive On Green	0.62	0.62	0.62	0.03	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	608	3228	37	1598	3272	0	108	0	1326			
Grp Volume(v), veh/h	41	476	499	31	803	0	80	0	0			
Grp Sat Flow(s),veh/h/ln	608	1594	1671	1598	1594	0	1434	0	0			
Q Serve(g_s), s	3.3	17.9	17.9	2.1	11.6	0.0	5.0	0.0	0.0			
Cycle Q Clear(g_c), s	7.4	17.9	17.9	2.1	11.6	0.0	5.0	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.07		0.92			
Lane Grp Cap(c), veh/h	420	987	1035	44	2193	0	331	0	0			
V/C Ratio(X)	0.10	0.48	0.48	0.70	0.37	0.00	0.24	0.00	0.00			
Avail Cap(c_a), veh/h	420	987	1035	181	2465	0	331	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.3	11.4	11.4	53.3	7.2	0.0	34.7	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.7	1.6	17.9	0.1	0.0	1.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.7	5.9	1.0	3.0	0.0	1.9	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.8	13.1	13.0	71.2	7.3	0.0	36.4	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		1016			834			80				
Approach Delay, s/veh		13.0			9.7			36.4				
Approach LOS		B			A			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.6	73.0				80.6		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	4.1	19.9				13.6		7.0				
Green Ext Time (p_c), s	0.0	6.8				5.6		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	64	36	106	59	132	11	466	108	133	673	3
Future Volume (veh/h)	2	64	36	106	59	132	11	466	108	133	673	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	2	72	40	119	66	148	12	524	121	149	756	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	87	323	175	237	121	196	26	891	397	194	1252	5
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.27	0.27	0.12	0.37	0.37
Sat Flow, veh/h	7	1061	577	408	396	644	1668	3328	1485	1668	3400	13
Grp Volume(v), veh/h	114	0	0	333	0	0	12	524	121	149	370	389
Grp Sat Flow(s),veh/h/ln	1644	0	0	1448	0	0	1668	1664	1485	1668	1664	1749
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	0.0	0.3	5.9	2.8	3.7	7.8	7.8
Cycle Q Clear(g_c), s	2.2	0.0	0.0	8.8	0.0	0.0	0.3	5.9	2.8	3.7	7.8	7.8
Prop In Lane	0.02		0.35	0.36		0.44	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	585	0	0	553	0	0	26	891	397	194	613	644
V/C Ratio(X)	0.19	0.00	0.00	0.60	0.00	0.00	0.46	0.59	0.30	0.77	0.60	0.60
Avail Cap(c_a), veh/h	1541	0	0	1378	0	0	366	3732	1664	752	2251	2366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	0.0	0.0	13.4	0.0	0.0	21.1	13.8	12.6	18.6	11.1	11.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.1	0.0	0.0	12.3	0.6	0.4	6.3	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	2.5	0.0	0.0	0.2	1.6	0.7	1.4	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	0.0	0.0	14.5	0.0	0.0	33.5	14.4	13.1	24.8	12.1	12.0
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		114			333			657			908	
Approach Delay, s/veh		11.4			14.5			14.5			14.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	17.7	5.2	20.4	17.7	9.5	16.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	38.5	9.5	58.5	38.5	19.5	48.5
Max Q Clear Time (g_c+I1), s	4.2	2.3	9.8	10.8	5.7	7.9
Green Ext Time (p_c), s	0.7	0.0	4.4	2.3	0.3	3.7

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	440	253	246	449	101	85	445	266	75	537	271
Future Volume (veh/h)	257	440	253	246	449	101	85	445	266	75	537	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	473	272	265	483	109	91	478	286	81	577	291
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	311	801	357	300	780	348	115	1006	448	101	630	317
Arrive On Green	0.19	0.25	0.25	0.19	0.24	0.24	0.07	0.31	0.31	0.06	0.30	0.30
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	276	473	272	265	483	109	91	478	286	81	448	420
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	15.9	12.3	16.7	15.3	12.8	5.9	5.3	11.4	16.3	4.7	25.6	25.7
Cycle Q Clear(g_c), s	15.9	12.3	16.7	15.3	12.8	5.9	5.3	11.4	16.3	4.7	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	311	801	357	300	780	348	115	1006	448	101	490	458
V/C Ratio(X)	0.89	0.59	0.76	0.88	0.62	0.31	0.79	0.48	0.64	0.80	0.92	0.92
Avail Cap(c_a), veh/h	465	801	357	465	780	348	354	1340	598	198	515	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	31.5	33.1	37.7	32.2	29.6	43.6	26.4	28.1	44.1	32.0	32.0
Incr Delay (d2), s/veh	13.0	3.2	14.2	11.9	3.7	2.3	11.7	0.3	1.5	13.4	20.6	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	4.7	6.7	6.6	5.0	2.1	2.4	4.0	5.2	2.1	11.7	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	34.7	47.3	49.6	35.9	31.9	55.2	26.8	29.6	57.4	52.5	53.8
LnGrp LOS	D	C	D	D	D	C	E	C	C	E	D	D
Approach Vol, veh/h		1021			857			855			949	
Approach Delay, s/veh		42.3			39.6			30.8			53.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	28.2	11.3	33.5	22.9	27.6	10.5	34.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	17.3	18.7	7.3	27.7	17.9	14.8	6.7	18.3
Green Ext Time (p_c), s	0.5	1.5	0.1	1.4	0.5	2.0	0.1	3.7

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	0	60	18	0	0	184	853	14	8	930	110
Future Volume (veh/h)	22	0	60	18	0	0	184	853	14	8	930	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	25	0	67	20	0	0	207	958	16	9	1045	124
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	39	1116	498	33	1105	493	219	1518	677	18	1115	498
Arrive On Green	0.02	0.00	0.34	0.02	0.00	0.00	0.13	0.47	0.47	0.01	0.34	0.34
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	25	0	67	20	0	0	207	958	16	9	1045	124
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	1.8	0.0	3.7	1.4	0.0	0.0	14.5	25.6	0.7	0.6	35.8	7.1
Cycle Q Clear(g_c), s	1.8	0.0	3.7	1.4	0.0	0.0	14.5	25.6	0.7	0.6	35.8	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	1116	498	33	1105	493	219	1518	677	18	1115	498
V/C Ratio(X)	0.64	0.00	0.13	0.60	0.00	0.00	0.94	0.63	0.02	0.51	0.94	0.25
Avail Cap(c_a), veh/h	106	1116	498	92	1105	493	219	1518	677	92	1144	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	0.0	25.9	55.8	0.0	0.0	49.2	23.1	16.4	56.5	36.5	27.0
Incr Delay (d2), s/veh	16.3	0.0	0.6	16.0	0.0	0.0	45.0	0.9	0.0	20.9	13.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.3	0.7	0.0	0.0	8.3	9.0	0.2	0.4	15.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.9	0.0	26.5	71.8	0.0	0.0	94.2	23.9	16.5	77.4	50.4	27.3
LnGrp LOS	E	A	C	E	A	A	F	C	B	E	D	C
Approach Vol, veh/h		92			20			1181			1178	
Approach Delay, s/veh		38.8			71.8			36.1			48.1	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	44.0	20.0	44.0	7.2	43.6	5.7	58.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	3.4	5.7	16.5	37.8	3.8	0.0	2.6	27.6
Green Ext Time (p_c), s	0.0	0.2	0.0	1.7	0.0	0.0	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	42.3
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	869	168
Future Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	869	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1230	23	7	1010	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	307	0	163	172	29	80	183	1895	35	15	1552	692
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.58	0.58	0.01	0.47	0.47
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3286	61	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	612	641	7	1010	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1711	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.1	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	163	281	0	0	183	944	987	15	1552	692
V/C Ratio(X)	0.07	0.00	0.23	0.01	0.00	0.00	1.79	0.65	0.65	0.46	0.65	0.28
Avail Cap(c_a), veh/h	789	0	702	780	0	0	183	2691	2814	422	5857	2613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	18.1	17.6	0.0	0.0	19.8	6.4	6.4	22.0	8.9	7.1
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.0	0.0	0.0	375.4	0.8	0.7	19.9	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	20.6	1.4	1.5	0.1	1.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	18.8	17.7	0.0	0.0	395.2	7.2	7.1	41.9	9.4	7.4
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1581			1212	
Approach Delay, s/veh		18.5			17.7			87.7			9.3	
Approach LOS		B			B			F			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.5	9.5	25.7	9.5	4.9	30.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	5.0	80.0	21.5	11.5	73.5
Max Q Clear Time (g_c+I1), s	3.0	7.0	12.5	2.1	2.2	13.3
Green Ext Time (p_c), s	0.2	0.0	8.7	0.0	0.0	9.4

Intersection Summary	
HCM 6th Ctrl Delay	52.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	176	229	65	145	241	190	1041	73	193	657	56
Future Volume (veh/h)	103	176	229	65	145	241	190	1041	73	193	657	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	111	189	246	70	156	259	204	1119	78	208	706	60
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
Arrive On Green	0.07	0.33	0.33	0.05	0.31	0.31	0.14	0.34	0.34	0.13	0.34	0.34
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	111	189	246	70	156	259	204	1119	78	208	706	60
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	8.5	5.2	17.0	5.3	4.4	18.7	15.5	42.8	4.7	15.9	22.9	3.6
Cycle Q Clear(g_c), s	8.5	5.2	17.0	5.3	4.4	18.7	15.5	42.8	4.7	15.9	22.9	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
V/C Ratio(X)	0.90	0.17	0.49	0.80	0.15	0.55	0.89	0.97	0.15	0.93	0.62	0.12
Avail Cap(c_a), veh/h	123	1121	500	113	1051	469	274	1149	512	224	1139	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	30.5	34.5	60.9	32.2	37.1	55.2	42.2	29.7	55.7	35.9	29.5
Incr Delay (d2), s/veh	52.4	0.3	3.4	25.8	0.3	4.6	25.5	20.5	0.1	41.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.1	6.4	2.9	1.8	7.2	8.0	20.0	1.7	9.0	9.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.2	30.9	37.9	86.7	32.5	41.7	80.7	62.6	29.8	96.7	36.9	29.6
LnGrp LOS	F	C	D	F	C	D	F	E	C	F	D	C
Approach Vol, veh/h		546			485			1401			974	
Approach Delay, s/veh		50.6			45.2			63.4			49.3	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	47.9	22.2	48.6	14.0	45.2	21.8	49.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.8	41.5	21.2	40.6	9.5	40.7	17.3	44.5
Max Q Clear Time (g_c+I1), s	7.3	19.0	17.5	24.9	10.5	20.7	17.9	44.8
Green Ext Time (p_c), s	0.0	1.8	0.2	3.9	0.0	1.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	11.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	5	23	22	2	8	23	176	7	5	184	56
Future Vol, veh/h	57	5	23	22	2	8	23	176	7	5	184	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	5	24	23	2	9	24	187	7	5	196	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	29	0	0	320	196	17	289	204	7
Stage 1	-	-	-	-	-	-	139	139	-	53	53	-
Stage 2	-	-	-	-	-	-	181	57	-	236	151	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1582	-	-	1559	-	-	625	692	1050	655	685	1064
Stage 1	-	-	-	-	-	-	855	774	-	950	843	-
Stage 2	-	-	-	-	-	-	812	840	-	758	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1582	-	-	1559	-	-	435	655	1050	487	649	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	435	655	-	487	649	-
Stage 1	-	-	-	-	-	-	822	744	-	913	830	-
Stage 2	-	-	-	-	-	-	577	827	-	541	735	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.9	5	13.8	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	628	1582	-	-	1559	-	-	707
HCM Lane V/C Ratio	0.349	0.038	-	-	0.015	-	-	0.369
HCM Control Delay (s)	13.8	7.4	0	-	7.3	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.6	0.1	-	-	0	-	-	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	583	38	36	678	160	13	71	23	101	59	66
Future Volume (veh/h)	165	583	38	36	678	160	13	71	23	101	59	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	176	620	40	38	721	170	14	76	24	107	63	70
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	235	1553	693	75	1233	550	121	179	52	415	120	134
Arrive On Green	0.14	0.45	0.45	0.04	0.36	0.36	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	105	1166	339	1254	784	871
Grp Volume(v), veh/h	176	620	40	38	721	170	114	0	0	107	0	133
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1610	0	0	1254	0	1654
Q Serve(g_s), s	3.8	4.6	0.6	0.8	6.5	3.1	0.0	0.0	0.0	0.0	0.0	2.8
Cycle Q Clear(g_c), s	3.8	4.6	0.6	0.8	6.5	3.1	2.9	0.0	0.0	2.1	0.0	2.8
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.21	1.00		0.53
Lane Grp Cap(c), veh/h	235	1553	693	75	1233	550	353	0	0	415	0	254
V/C Ratio(X)	0.75	0.40	0.06	0.51	0.58	0.31	0.32	0.00	0.00	0.26	0.00	0.52
Avail Cap(c_a), veh/h	1213	3539	1579	1213	3539	1579	1817	0	0	1529	0	1723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.9	7.1	5.9	18.0	10.0	8.9	14.7	0.0	0.0	14.7	0.0	15.0
Incr Delay (d2), s/veh	4.7	0.2	0.0	5.2	0.4	0.3	0.5	0.0	0.0	0.3	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.7	0.1	0.3	1.4	0.6	0.8	0.0	0.0	0.7	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	7.2	6.0	23.2	10.4	9.2	15.2	0.0	0.0	15.0	0.0	16.6
LnGrp LOS	C	A	A	C	B	A	B	A	A	B	A	B
Approach Vol, veh/h		836			929			114			240	
Approach Delay, s/veh		10.0			10.7			15.2			15.9	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	21.8		10.4	9.7	18.3		10.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.8	6.6		4.8	5.8	8.5		4.9				
Green Ext Time (p_c), s	0.1	4.0		1.2	0.4	5.2		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	299	54	140	384	155	45	158	75	90	80	43
Future Volume (veh/h)	79	299	54	140	384	155	45	158	75	90	80	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	374	68	175	480	194	56	198	94	112	100	54
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	220	812	146	253	1025	457	117	302	131	212	177	79
Arrive On Green	0.13	0.28	0.28	0.15	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1711	2889	520	1711	3413	1522	180	1032	448	453	604	269
Grp Volume(v), veh/h	99	220	222	175	480	194	348	0	0	266	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1703	1711	1706	1522	1660	0	0	1326	0	0
Q Serve(g_s), s	3.5	6.9	7.0	6.3	7.4	6.6	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	6.9	7.0	6.3	7.4	6.6	11.7	0.0	0.0	11.6	0.0	0.0
Prop In Lane	1.00		0.31	1.00		1.00	0.16		0.27	0.42		0.20
Lane Grp Cap(c), veh/h	220	480	478	253	1025	457	551	0	0	467	0	0
V/C Ratio(X)	0.45	0.46	0.47	0.69	0.47	0.42	0.63	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	502	870	869	767	2269	1012	1067	0	0	904	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.1	19.2	19.2	26.2	18.4	18.1	20.3	0.0	0.0	19.9	0.0	0.0
Incr Delay (d2), s/veh	1.4	2.5	2.5	3.4	1.2	2.3	4.3	0.0	0.0	3.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	2.6	2.4	2.6	2.2	4.8	0.0	0.0	3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	21.7	21.8	29.5	19.6	20.4	24.6	0.0	0.0	23.8	0.0	0.0
LnGrp LOS	C	C	C	C	B	C	C	A	A	C	A	A
Approach Vol, veh/h		541			849			348			266	
Approach Delay, s/veh		22.8			21.8			24.6			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	25.2		25.9	12.3	26.4		25.9				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.6	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	9.3	9.0		13.7	5.5	9.4		13.6				
Green Ext Time (p_c), s	0.4	5.7		5.2	0.2	10.0		4.0				

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

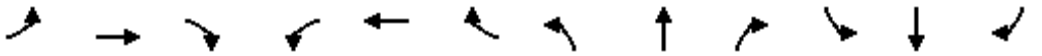
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	31	0	6	0
Future Vol, veh/h	0	16	31	0	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	30	57	0	11	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	57	0	-	0	87	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1381	-	-	-	848	933
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	923	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1381	-	-	-	848	933
Mov Cap-2 Maneuver	-	-	-	-	848	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	923	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1381	-	-	-	848
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	430	8	8	796	236	9	11	8	84	4	72
Future Volume (veh/h)	188	430	8	8	796	236	9	11	8	84	4	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
Adj Flow Rate, veh/h	209	478	9	9	884	262	10	12	9	93	4	80
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	250	1663	31	18	1194	532	19	67	50	115	9	184
Arrive On Green	0.16	0.55	0.55	0.01	0.40	0.40	0.01	0.08	0.08	0.08	0.14	0.14
Sat Flow, veh/h	1514	3033	57	1514	3021	1347	1514	843	633	1514	65	1293
Grp Volume(v), veh/h	209	238	249	9	884	262	10	0	21	93	0	84
Grp Sat Flow(s),veh/h/ln	1514	1510	1580	1514	1510	1347	1514	0	1476	1514	0	1357
Q Serve(g_s), s	8.4	5.3	5.3	0.4	15.8	9.2	0.4	0.0	0.8	3.8	0.0	3.6
Cycle Q Clear(g_c), s	8.4	5.3	5.3	0.4	15.8	9.2	0.4	0.0	0.8	3.8	0.0	3.6
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.43	1.00		0.95
Lane Grp Cap(c), veh/h	250	828	866	18	1194	532	19	0	117	115	0	193
V/C Ratio(X)	0.84	0.29	0.29	0.51	0.74	0.49	0.52	0.00	0.18	0.81	0.00	0.44
Avail Cap(c_a), veh/h	372	1208	1263	372	2416	1078	372	0	479	372	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.6	7.6	7.6	31.0	16.3	14.3	31.0	0.0	27.2	28.7	0.0	24.8
Incr Delay (d2), s/veh	10.2	0.2	0.2	21.4	0.9	0.7	19.9	0.0	0.7	12.6	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.1	1.2	0.2	4.3	2.6	0.3	0.0	0.3	1.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	7.8	7.8	52.4	17.2	15.0	50.9	0.0	27.9	41.4	0.0	26.3
LnGrp LOS	D	A	A	D	B	B	D	A	C	D	A	C
Approach Vol, veh/h		696			1155			31			177	
Approach Delay, s/veh		16.2			17.0			35.3			34.2	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	39.1	5.3	13.5	14.9	29.5	9.3	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.4	7.3	2.4	5.6	10.4	17.8	5.8	2.8
Green Ext Time (p_c), s	0.0	2.6	0.0	0.3	0.2	7.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	79	47	74	116	14	25	33	33	10	62	8
Future Vol, veh/h	5	79	47	74	116	14	25	33	33	10	62	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	110	65	103	161	19	35	46	46	14	86	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	11.1	9.4	9.4
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	4%	36%	12%
Vol Thru, %	36%	60%	57%	78%
Vol Right, %	36%	36%	7%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	131	204	80
LT Vol	25	5	74	10
Through Vol	33	79	116	62
RT Vol	33	47	14	8
Lane Flow Rate	126	182	283	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.181	0.242	0.386	0.163
Departure Headway (Hd)	5.149	4.796	4.9	5.297
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	690	742	728	670
Service Time	3.234	2.872	2.967	3.385
HCM Lane V/C Ratio	0.183	0.245	0.389	0.166
HCM Control Delay	9.4	9.4	11.1	9.4
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.7	0.9	1.8	0.6

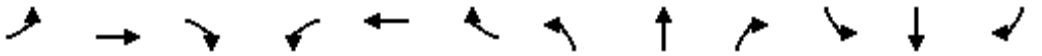
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	16	0	0	0	23	111	0	0	220	0
Future Vol, veh/h	4	0	16	0	0	0	23	111	0	0	220	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	6	0	25	0	0	0	35	171	0	0	338	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	579	579	338	592	579	171	338	0	0	171	0	0
Stage 1	338	338	-	241	241	-	-	-	-	-	-	-
Stage 2	241	241	-	351	338	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	418	418	691	409	418	857	1188	-	-	1371	-	-
Stage 1	664	630	-	749	695	-	-	-	-	-	-	-
Stage 2	749	695	-	653	630	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	408	404	691	384	404	857	1188	-	-	1371	-	-
Mov Cap-2 Maneuver	408	404	-	384	404	-	-	-	-	-	-	-
Stage 1	642	630	-	724	672	-	-	-	-	-	-	-
Stage 2	724	672	-	630	630	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	0	1.4	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1188	-	-	607	-	1371	-	-
HCM Lane V/C Ratio	0.03	-	-	0.051	-	-	-	-
HCM Control Delay (s)	8.1	0	-	11.2	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Future Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	114	909	406	170	1021	455	463	1102	492	122	424	189
Arrive On Green	0.07	0.26	0.26	0.10	0.29	0.29	0.27	0.32	0.32	0.07	0.12	0.12
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.6	5.9	7.9	5.3	14.1	3.8	16.9	4.9	2.5	3.8	5.1	2.0
Cycle Q Clear(g_c), s	3.6	5.9	7.9	5.3	14.1	3.8	16.9	4.9	2.5	3.8	5.1	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	909	406	170	1021	455	463	1102	492	122	424	189
V/C Ratio(X)	0.77	0.39	0.50	0.78	0.74	0.24	0.92	0.29	0.15	0.77	0.62	0.25
Avail Cap(c_a), veh/h	378	1871	834	378	1871	834	475	1385	618	475	1385	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	21.6	22.4	31.5	22.8	19.1	25.4	18.3	17.5	32.6	29.8	28.4
Incr Delay (d2), s/veh	10.5	0.3	0.9	7.7	1.1	0.3	22.3	0.1	0.1	9.6	1.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.1	2.7	2.4	5.0	1.2	9.0	1.8	0.8	1.8	2.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	21.9	23.3	39.1	23.8	19.4	47.7	18.4	17.6	42.2	31.3	29.1
LnGrp LOS	D	C	C	D	C	B	D	B	B	D	C	C
Approach Vol, veh/h		642			999			818			405	
Approach Delay, s/veh		25.3			25.4			33.5			33.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	23.2	23.5	13.2	9.2	25.5	9.5	27.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	7.3	9.9	18.9	7.1	5.6	16.1	5.8	6.9
Green Ext Time (p_c), s	0.2	2.7	0.1	1.6	0.1	4.9	0.2	2.0

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	75.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	35	143	26	137	65	594	76	90	480	33
Future Vol, veh/h	9	3	35	143	26	137	65	594	76	90	480	33
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	12	4	45	183	33	176	83	762	97	115	615	42
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	17.2	26.7	112.5	60.1
HCM LOS	C	D	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	19%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	72%	6%	0%	16%	0%	100%	83%
Vol Right, %	0%	0%	28%	74%	0%	84%	0%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	396	274	47	143	163	90	320	193
LT Vol	65	0	0	9	143	0	90	0	0
Through Vol	0	396	198	3	0	26	0	320	160
RT Vol	0	0	76	35	0	137	0	0	33
Lane Flow Rate	83	508	351	60	183	209	115	410	247
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.222	1.281	0.868	0.188	0.554	0.568	0.311	1.049	0.625
Departure Headway (Hd)	9.914	9.395	9.193	11.768	11.487	10.371	10.238	9.719	9.594
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	364	391	397	307	315	351	353	377	379
Service Time	7.614	7.095	6.893	9.468	9.187	8.071	7.938	7.419	7.294
HCM Lane V/C Ratio	0.228	1.299	0.884	0.195	0.581	0.595	0.326	1.088	0.652
HCM Control Delay	15.4	172.3	49.1	17.2	27.6	25.9	17.5	92.1	27
HCM Lane LOS	C	F	E	C	D	D	C	F	D
HCM 95th-tile Q	0.8	21.9	8.5	0.7	3.2	3.3	1.3	13.3	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	6	58	232	34	7	191	655	76	3	517	124
Future Volume (veh/h)	55	6	58	232	34	7	191	655	76	3	517	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	66	7	70	280	41	8	230	789	92	4	623	149
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	97	152	129	337	405	343	283	1473	657	9	927	413
Arrive On Green	0.06	0.08	0.08	0.19	0.22	0.22	0.16	0.42	0.42	0.01	0.26	0.26
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	66	7	70	280	41	8	230	789	92	4	623	149
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	2.2	0.2	2.6	9.3	1.1	0.2	7.6	10.2	2.2	0.1	9.6	4.7
Cycle Q Clear(g_c), s	2.2	0.2	2.6	9.3	1.1	0.2	7.6	10.2	2.2	0.1	9.6	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	152	129	337	405	343	283	1473	657	9	927	413
V/C Ratio(X)	0.68	0.05	0.54	0.83	0.10	0.02	0.81	0.54	0.14	0.42	0.67	0.36
Avail Cap(c_a), veh/h	183	1055	894	514	1403	1189	456	2590	1155	145	1970	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	25.5	26.6	23.4	18.8	18.5	24.4	13.1	10.7	29.9	19.8	18.0
Incr Delay (d2), s/veh	8.0	0.1	3.5	6.8	0.1	0.0	5.7	0.3	0.1	27.5	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.1	1.0	4.2	0.4	0.1	3.3	3.3	0.6	0.1	3.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	25.6	30.1	30.3	18.9	18.5	30.2	13.4	10.8	57.5	20.7	18.6
LnGrp LOS	D	C	C	C	B	B	C	B	B	E	C	B
Approach Vol, veh/h		143			329			1111			776	
Approach Delay, s/veh		32.6			28.6			16.6			20.5	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	9.5	14.3	20.5	7.8	17.8	4.8	29.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	11.3	4.6	9.6	11.6	4.2	3.1	2.1	12.2
Green Ext Time (p_c), s	0.5	0.2	0.3	4.4	0.0	0.2	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	210	184	84	382	125	223	784	103	83	621	136
Future Volume (veh/h)	62	210	184	84	382	125	223	784	103	83	621	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	75	253	222	101	460	151	269	945	124	100	748	164
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	95	608	513	125	1241	554	288	1230	548	124	902	402
Arrive On Green	0.05	0.34	0.34	0.07	0.36	0.36	0.17	0.35	0.35	0.07	0.26	0.26
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	75	246	229	101	460	151	269	945	124	100	748	164
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	4.8	12.1	12.7	6.4	10.9	7.7	17.0	27.0	6.3	6.3	22.7	9.8
Cycle Q Clear(g_c), s	4.8	12.1	12.7	6.4	10.9	7.7	17.0	27.0	6.3	6.3	22.7	9.8
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	591	530	125	1241	554	288	1230	548	124	902	402
V/C Ratio(X)	0.79	0.42	0.43	0.81	0.37	0.27	0.93	0.77	0.23	0.80	0.83	0.41
Avail Cap(c_a), veh/h	142	591	530	133	1241	554	288	1397	623	165	1151	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	28.2	28.4	51.0	26.5	25.5	45.9	31.9	25.3	51.0	38.9	34.1
Incr Delay (d2), s/veh	15.6	2.2	2.6	28.5	0.9	1.2	35.5	2.3	0.2	18.6	4.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.1	4.8	3.6	4.4	3.0	10.0	11.2	2.3	3.3	9.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	30.4	31.0	79.5	27.4	26.7	81.4	34.3	25.5	69.6	43.1	34.8
LnGrp LOS	E	C	C	E	C	C	F	C	C	E	D	C
Approach Vol, veh/h		550			712			1338			1012	
Approach Delay, s/veh		35.7			34.6			42.9			44.3	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	42.5	23.0	33.5	10.6	44.4	12.5	44.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	9.4	14.7	19.0	24.7	6.8	12.9	8.3	29.0
Green Ext Time (p_c), s	0.0	2.5	0.0	4.3	0.0	3.1	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	87	64	1055	43	30	588
Future Volume (veh/h)	87	64	1055	43	30	588
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	110	81	1335	54	38	744
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1671	68	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3461	136	1725	3532
Grp Volume(v), veh/h	110	81	681	708	38	744
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1787	1725	1721
Q Serve(g_s), s	6.4	5.2	39.6	39.8	2.2	9.8
Cycle Q Clear(g_c), s	6.4	5.2	39.6	39.8	2.2	9.8
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	381	339	853	886	295	2423
V/C Ratio(X)	0.29	0.24	0.80	0.80	0.13	0.31
Avail Cap(c_a), veh/h	381	339	853	886	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	38.5	25.2	25.3	42.2	6.7
Incr Delay (d2), s/veh	1.9	1.7	5.4	5.3	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.0	16.9	17.6	1.0	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.8	40.1	30.6	30.5	43.1	7.0
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	191		1389			782
Approach Delay, s/veh	40.5		30.6			8.8
Approach LOS	D		C			A

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	89.0	31.0	25.0	64.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	84.5	26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s	11.8	8.4	4.2	41.8
Green Ext Time (p_c), s	6.4	0.5	0.0	9.4

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	472	19	101	938	53	56	13	93	55	24	14
Future Volume (veh/h)	7	472	19	101	938	53	56	13	93	55	24	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	536	22	115	1066	58	64	14	106	60	26	15
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	1477	61	151	1445	79	156	23	173	96	98	56
Arrive On Green	0.09	0.42	0.42	0.08	0.42	0.42	0.09	0.12	0.12	0.05	0.09	0.09
Sat Flow, veh/h	1781	3479	143	1781	3427	186	1781	188	1425	1781	1113	642
Grp Volume(v), veh/h	8	273	285	115	553	571	64	0	120	60	0	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1845	1781	1777	1837	1781	0	1614	1781	0	1755
Q Serve(g_s), s	0.2	6.0	6.0	3.6	14.9	14.9	1.9	0.0	4.0	1.9	0.0	1.2
Cycle Q Clear(g_c), s	0.2	6.0	6.0	3.6	14.9	14.9	1.9	0.0	4.0	1.9	0.0	1.2
Prop In Lane	1.00		0.08	1.00		0.10	1.00		0.88	1.00		0.37
Lane Grp Cap(c), veh/h	156	754	783	151	749	775	156	0	196	96	0	154
V/C Ratio(X)	0.05	0.36	0.36	0.76	0.74	0.74	0.41	0.00	0.61	0.63	0.00	0.27
Avail Cap(c_a), veh/h	565	1510	1568	515	1460	1510	578	0	749	328	0	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	11.2	11.2	25.5	13.8	13.9	24.6	0.0	23.8	26.4	0.0	24.3
Incr Delay (d2), s/veh	0.1	0.3	0.3	7.6	1.4	1.4	1.7	0.0	3.1	6.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.7	1.8	1.6	4.4	4.6	0.8	0.0	1.6	0.9	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	11.5	11.5	33.2	15.3	15.2	26.4	0.0	26.9	33.0	0.0	25.2
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		566			1239			184			101	
Approach Delay, s/veh		11.6			16.9			26.7			29.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	28.7	9.5	9.5	9.5	28.6	7.6	11.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	48.5	18.5	18.5	18.1	46.9	10.5	26.5
Max Q Clear Time (g_c+I1), s	5.6	8.0	3.9	3.2	2.2	16.9	3.9	6.0
Green Ext Time (p_c), s	0.2	3.0	0.1	0.1	0.0	7.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	124	8	82	241	11	15	26	67	31	21	20
Future Vol, veh/h	13	124	8	82	241	11	15	26	67	31	21	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	18	168	11	111	326	15	20	35	91	42	28	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	341	0	0	179	0	0	793	773	174	829	771	334
Stage 1	-	-	-	-	-	-	210	210	-	556	556	-
Stage 2	-	-	-	-	-	-	583	563	-	273	215	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1224	-	-	1403	-	-	308	331	872	291	332	710
Stage 1	-	-	-	-	-	-	794	730	-	517	514	-
Stage 2	-	-	-	-	-	-	500	511	-	735	727	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1224	-	-	1403	-	-	256	300	872	221	301	710
Mov Cap-2 Maneuver	-	-	-	-	-	-	256	300	-	221	301	-
Stage 1	-	-	-	-	-	-	782	719	-	509	473	-
Stage 2	-	-	-	-	-	-	416	471	-	617	716	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.9	14.1	22.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	256	569	1224	-	-	1403	-	-	302
HCM Lane V/C Ratio	0.079	0.221	0.014	-	-	0.079	-	-	0.322
HCM Control Delay (s)	20.3	13.1	8	-	-	7.8	-	-	22.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.8	0	-	-	0.3	-	-	1.4

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	87	30	61	140	1	52	1	37	0	0	0
Future Vol, veh/h	0	87	30	61	140	1	52	1	37	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	104	36	73	167	1	62	1	44	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	140	0	0	436	436	122	459	454	168
Stage 1	-	-	-	-	-	-	122	122	-	314	314	-
Stage 2	-	-	-	-	-	-	314	314	-	145	140	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1410	-	-	1443	-	-	531	514	929	512	502	876
Stage 1	-	-	-	-	-	-	882	795	-	697	656	-
Stage 2	-	-	-	-	-	-	697	656	-	858	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1410	-	-	1443	-	-	508	485	929	466	474	876
Mov Cap-2 Maneuver	-	-	-	-	-	-	508	485	-	466	474	-
Stage 1	-	-	-	-	-	-	882	795	-	697	619	-
Stage 2	-	-	-	-	-	-	658	619	-	816	781	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	12	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	624	1410	-	-	1443	-	-	-
HCM Lane V/C Ratio	0.172	-	-	-	0.05	-	-	-
HCM Control Delay (s)	12	0	-	-	7.6	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0.2	-	-	-

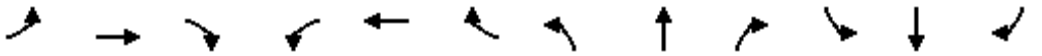
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	23	0	11	0	71	8	4	84	0
Future Vol, veh/h	0	0	0	23	0	11	0	71	8	4	84	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	29	0	14	0	89	10	5	105	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	216	214	105	209	209	94	105	0	0	99	0	0
Stage 1	115	115	-	94	94	-	-	-	-	-	-	-
Stage 2	101	99	-	115	115	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	738	682	947	746	686	960	1480	-	-	1488	-	-
Stage 1	887	798	-	910	815	-	-	-	-	-	-	-
Stage 2	903	811	-	887	798	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	725	679	947	744	683	960	1480	-	-	1488	-	-
Mov Cap-2 Maneuver	725	679	-	744	683	-	-	-	-	-	-	-
Stage 1	887	795	-	910	815	-	-	-	-	-	-	-
Stage 2	890	811	-	883	795	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.7	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	-	802	1488	-	-
HCM Lane V/C Ratio	-	-	-	-	0.053	0.003	-	-
HCM Control Delay (s)	0	-	-	0	9.7	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Future Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
Arrive On Green	0.11	0.34	0.34	0.15	0.38	0.38	0.06	0.24	0.24	0.11	0.29	0.29
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	12.0	25.6	10.8	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	12.0
Cycle Q Clear(g_c), s	12.0	25.6	10.8	15.6	43.1	16.6	7.2	23.2	12.1	12.9	13.5	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	638	541	260	713	604	113	448	380	203	1031	460
V/C Ratio(X)	1.06	0.75	0.37	0.95	1.32	0.50	2.15	0.89	0.52	1.57	0.50	0.45
Avail Cap(c_a), veh/h	189	638	541	260	713	604	113	562	476	203	1247	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	33.0	28.1	47.9	35.0	26.8	53.0	41.5	37.3	50.1	33.3	32.8
Incr Delay (d2), s/veh	81.7	7.9	1.9	42.3	152.1	3.0	546.4	13.3	1.1	276.9	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	12.1	4.2	9.6	47.9	6.5	20.3	11.9	4.7	21.2	5.6	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	132.3	40.8	30.0	90.2	187.1	29.8	599.4	54.8	38.4	327.0	33.7	33.4
LnGrp LOS	F	D	C	F	F	C	F	D	D	F	C	C
Approach Vol, veh/h		878			1489			837			1035	
Approach Delay, s/veh		59.2			138.9			209.7			123.7	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	37.3	16.5	47.6	17.4	31.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	17.6	27.6	9.2	15.5	14.0	45.1	14.9	25.2
Green Ext Time (p_c), s	0.0	2.5	0.0	3.8	0.0	0.0	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	132.7
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Future Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	143	322	294	226	64	201	490	140	56	742	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	157	354	322	606	171	215	595	504	72	759	92
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	511	1152	1781	1402	397	1781	1870	1585	1781	3191	387
Grp Volume(v), veh/h	79	0	465	294	0	290	201	490	140	56	413	419
Grp Sat Flow(s),veh/h/ln	1781	0	1663	1781	0	1799	1781	1870	1585	1781	1777	1801
Q Serve(g_s), s	5.2	0.0	31.6	19.1	0.0	12.8	13.2	28.5	7.8	3.7	27.2	27.2
Cycle Q Clear(g_c), s	5.2	0.0	31.6	19.1	0.0	12.8	13.2	28.5	7.8	3.7	27.2	27.2
Prop In Lane	1.00		0.69	1.00		0.22	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	101	0	512	322	0	777	215	595	504	72	423	428
V/C Ratio(X)	0.79	0.00	0.91	0.91	0.00	0.37	0.94	0.82	0.28	0.78	0.98	0.98
Avail Cap(c_a), veh/h	156	0	512	357	0	777	215	595	504	86	423	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	0.0	39.2	47.3	0.0	22.6	51.3	37.1	30.0	55.9	44.5	44.5
Incr Delay (d2), s/veh	13.1	0.0	22.6	25.6	0.0	1.4	43.5	12.2	1.4	30.2	38.4	38.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	15.5	10.5	0.0	5.5	8.3	14.5	3.1	2.2	16.0	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	0.0	61.8	72.9	0.0	24.0	94.8	49.3	31.4	86.1	82.9	82.8
LnGrp LOS	E	A	E	E	A	C	F	D	C	F	F	F
Approach Vol, veh/h		544			584			831			888	
Approach Delay, s/veh		62.7			48.6			57.3			83.1	
Approach LOS		E			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	40.7	18.7	32.5	11.1	55.3	9.3	41.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	11.1	33.6	15.2	29.2	7.2	14.8	5.7	30.5
Green Ext Time (p_c), s	0.2	0.7	0.0	0.0	0.0	1.6	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	64.6
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	257	45	168	311	170	227	527	162	339	794	101
Future Volume (veh/h)	51	257	45	168	311	170	227	527	162	339	794	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	299	52	195	362	198	264	613	188	394	923	117
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	988	441	220	1276	569	291	801	357	423	1064	475
Arrive On Green	0.04	0.28	0.28	0.12	0.36	0.36	0.16	0.23	0.23	0.24	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	59	299	52	195	362	198	264	613	188	394	923	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.4	8.8	3.3	14.3	9.7	12.2	19.4	21.5	13.9	28.8	32.7	7.4
Cycle Q Clear(g_c), s	4.4	8.8	3.3	14.3	9.7	12.2	19.4	21.5	13.9	28.8	32.7	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	988	441	220	1276	569	291	801	357	423	1064	475
V/C Ratio(X)	0.78	0.30	0.12	0.88	0.28	0.35	0.91	0.77	0.53	0.93	0.87	0.25
Avail Cap(c_a), veh/h	171	988	441	261	1276	569	373	961	429	529	1271	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	37.9	35.9	57.4	30.4	31.2	54.7	48.3	45.3	49.7	44.1	35.3
Incr Delay (d2), s/veh	15.3	0.8	0.5	25.4	0.6	1.7	21.4	3.1	1.2	20.6	5.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.8	1.3	7.8	4.1	4.8	10.2	9.6	5.5	14.9	14.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.4	38.7	36.4	82.8	31.0	32.9	76.0	51.3	46.5	70.3	49.9	35.5
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	D	D
Approach Vol, veh/h		410			755			1065			1434	
Approach Delay, s/veh		44.1			44.9			56.6			54.3	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	41.5	26.3	44.3	10.2	52.3	36.1	34.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	37.0	27.9	47.6	12.8	43.7	39.5	36.0
Max Q Clear Time (g_c+I1), s	16.3	10.8	21.4	34.7	6.4	14.2	30.8	23.5
Green Ext Time (p_c), s	0.1	1.8	0.4	5.1	0.0	2.7	0.8	3.6

Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

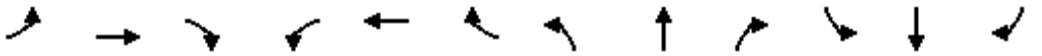
Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	5	101	10	3	196
Future Vol, veh/h	24	5	101	10	3	196
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	37	8	155	15	5	302

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	475	163	0	0	170	0
Stage 1	163	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	538	866	-	-	1372	-
Stage 1	852	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	536	866	-	-	1372	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	726	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	574	1372	-
HCM Lane V/C Ratio	-	-	0.078	0.003	-
HCM Control Delay (s)	-	-	11.8	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	853	5	83	871	0	16	0	44	0	0	0
Future Volume (veh/h)	40	853	5	83	871	0	16	0	44	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	927	5	90	947	0	17	0	48			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	388	1994	11	113	2317	0	82	0	231			
Arrive On Green	0.60	0.60	0.60	0.07	0.71	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	545	3337	18	1640	3358	0	393	0	1110			
Grp Volume(v), veh/h	43	454	478	90	947	0	65	0	0			
Grp Sat Flow(s),veh/h/ln	545	1636	1719	1640	1636	0	1503	0	0			
Q Serve(g_s), s	3.8	16.7	16.7	5.8	12.8	0.0	3.9	0.0	0.0			
Cycle Q Clear(g_c), s	4.7	16.7	16.7	5.8	12.8	0.0	3.9	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.26		0.74			
Lane Grp Cap(c), veh/h	388	978	1027	113	2317	0	313	0	0			
V/C Ratio(X)	0.11	0.46	0.46	0.80	0.41	0.00	0.21	0.00	0.00			
Avail Cap(c_a), veh/h	388	978	1027	296	2683	0	313	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.9	12.1	12.1	49.5	6.5	0.0	35.3	0.0	0.0			
Incr Delay (d2), s/veh	0.6	1.6	1.5	12.0	0.1	0.0	1.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.5	5.8	2.6	3.2	0.0	1.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	13.7	13.6	61.5	6.6	0.0	36.8	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		975			1037			65				
Approach Delay, s/veh		13.5			11.4			36.8				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.9	69.0				80.9		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	7.8	18.7				14.8		5.9				
Green Ext Time (p_c), s	0.1	6.5				7.0		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			13.2									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	62	17	88	60	122	43	765	102	148	516	0
Future Volume (veh/h)	4	62	17	88	60	122	43	765	102	148	516	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	5	70	19	100	68	139	49	869	116	168	586	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	77	345	89	188	111	175	83	1276	569	217	1543	0
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.37	0.37	0.13	0.45	0.00
Sat Flow, veh/h	27	1358	351	394	436	687	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	94	0	0	307	0	0	49	869	116	168	586	0
Grp Sat Flow(s),veh/h/ln	1736	0	0	1518	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	7.6	0.0	0.0	1.5	11.5	2.8	5.1	6.1	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	10.1	0.0	0.0	1.5	11.5	2.8	5.1	6.1	0.0
Prop In Lane	0.05		0.20	0.33		0.45	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	511	0	0	474	0	0	83	1276	569	217	1543	0
V/C Ratio(X)	0.18	0.00	0.00	0.65	0.00	0.00	0.59	0.68	0.20	0.77	0.38	0.00
Avail Cap(c_a), veh/h	909	0	0	822	0	0	525	3905	1742	589	4032	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.9	0.0	0.0	18.7	0.0	0.0	25.3	14.4	11.6	22.9	9.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.5	0.0	0.0	6.5	0.6	0.2	5.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	3.4	0.0	0.0	0.7	3.3	0.7	2.1	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	0.0	20.2	0.0	0.0	31.8	15.0	11.8	28.7	10.1	0.0
LnGrp LOS	B	A	A	C	A	A	C	B	B	C	B	A
Approach Vol, veh/h		94			307			1034			754	
Approach Delay, s/veh		16.1			20.2			15.4			14.2	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	18.3	7.1	28.8	18.3	11.3	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	16.5	63.5	26.5	18.5	61.5
Max Q Clear Time (g_c+I1), s	4.3	3.5	8.1	12.1	7.1	13.5
Green Ext Time (p_c), s	0.4	0.1	3.7	1.6	0.3	6.6

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	493	121	304	486	137	210	695	239	110	450	270
Future Volume (veh/h)	285	493	121	304	486	137	210	695	239	110	450	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	297	514	126	317	506	143	219	724	249	115	469	281
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	328	703	313	347	741	331	248	1079	481	140	519	310
Arrive On Green	0.20	0.21	0.21	0.21	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	297	514	126	317	506	143	219	724	249	115	389	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	19.0	15.7	8.0	20.3	15.2	9.1	14.1	20.5	14.9	7.4	24.7	24.9
Cycle Q Clear(g_c), s	19.0	15.7	8.0	20.3	15.2	9.1	14.1	20.5	14.9	7.4	24.7	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	328	703	313	347	741	331	248	1079	481	140	431	398
V/C Ratio(X)	0.91	0.73	0.40	0.91	0.68	0.43	0.88	0.67	0.52	0.82	0.90	0.91
Avail Cap(c_a), veh/h	419	703	313	419	741	331	319	1208	539	178	464	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	39.8	36.7	41.9	38.5	36.1	45.1	31.5	29.6	48.8	38.7	38.8
Incr Delay (d2), s/veh	19.6	6.6	3.8	21.7	5.0	4.1	20.0	1.3	0.9	20.9	19.8	22.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	6.6	3.0	9.9	6.3	3.4	6.8	7.7	5.0	3.7	11.6	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	46.4	40.5	63.6	43.6	40.2	65.1	32.7	30.4	69.7	58.5	60.8
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		937			966			1192			865	
Approach Delay, s/veh		50.6			49.7			38.2			60.9	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	27.6	20.8	32.8	26.0	28.9	13.7	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	22.3	17.7	16.1	26.9	21.0	17.2	9.4	22.5
Green Ext Time (p_c), s	0.4	1.6	0.2	1.4	0.5	1.7	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	48.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	2	161	40	0	15	95	969	32	6	911	50
Future Volume (veh/h)	108	2	161	40	0	15	95	969	32	6	911	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	110	2	164	41	0	15	97	989	33	6	930	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	116	1306	582	54	1183	528	121	1280	571	13	1064	475
Arrive On Green	0.07	0.40	0.40	0.03	0.00	0.36	0.07	0.39	0.39	0.01	0.33	0.33
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	110	2	164	41	0	15	97	989	33	6	930	51
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	7.1	0.0	8.1	2.6	0.0	0.7	6.2	28.1	1.5	0.4	28.5	2.6
Cycle Q Clear(g_c), s	7.1	0.0	8.1	2.6	0.0	0.7	6.2	28.1	1.5	0.4	28.5	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1306	582	54	1183	528	121	1280	571	13	1064	475
V/C Ratio(X)	0.95	0.00	0.28	0.76	0.00	0.03	0.80	0.77	0.06	0.48	0.87	0.11
Avail Cap(c_a), veh/h	116	1306	582	100	1183	528	239	1521	679	100	1245	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	19.2	21.7	51.1	0.0	21.9	48.6	28.3	20.2	52.6	33.9	25.1
Incr Delay (d2), s/veh	68.5	0.0	1.2	19.1	0.0	0.1	11.7	2.1	0.0	25.7	6.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	2.7	1.4	0.0	0.2	2.8	10.3	0.5	0.2	11.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.8	19.2	22.9	70.2	0.0	22.0	60.2	30.4	20.2	78.3	40.2	25.2
LnGrp LOS	F	B	C	E	A	C	E	C	C	E	D	C
Approach Vol, veh/h		276			56			1119			987	
Approach Delay, s/veh		60.7			57.3			32.7			39.7	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	47.0	12.3	39.1	12.0	43.0	5.3	46.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.6	10.1	8.2	30.5	9.1	2.7	2.4	30.1
Green Ext Time (p_c), s	0.0	0.5	0.1	4.1	0.0	0.0	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	943	3	1	1174	32
Future Volume (veh/h)	149	0	252	7	0	3	61	943	3	1	1174	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1164	4	1	1449	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	382	0	356	103	12	19	94	2029	7	2	1802	804
Arrive On Green	0.24	0.00	0.24	0.24	0.00	0.24	0.06	0.60	0.60	0.00	0.54	0.54
Sat Flow, veh/h	1323	0	1485	123	51	77	1668	3402	12	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	569	599	1	1449	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	251	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	16.7	0.2	0.0	0.0	3.7	17.4	17.4	0.0	29.4	1.1
Cycle Q Clear(g_c), s	11.2	0.0	16.7	16.9	0.0	0.0	3.7	17.4	17.4	0.0	29.4	1.1
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	382	0	356	134	0	0	94	993	1044	2	1802	804
V/C Ratio(X)	0.48	0.00	0.87	0.10	0.00	0.00	0.80	0.57	0.57	0.44	0.80	0.05
Avail Cap(c_a), veh/h	439	0	420	182	0	0	100	1452	1527	211	3124	1394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	30.4	25.7	0.0	0.0	38.7	10.3	10.3	41.5	15.5	9.0
Incr Delay (d2), s/veh	0.9	0.0	16.2	0.3	0.0	0.0	33.3	0.5	0.5	95.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	7.4	0.2	0.0	0.0	2.3	4.7	5.0	0.1	8.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	0.0	46.6	26.1	0.0	0.0	72.1	10.8	10.8	137.0	16.3	9.0
LnGrp LOS	C	A	D	C	A	A	E	B	B	F	B	A
Approach Vol, veh/h		495			13			1243			1490	
Approach Delay, s/veh		40.1			26.1			14.5			16.2	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.4	9.2	49.5	24.4	4.6	54.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	5.0	78.0	23.5	10.5	72.5
Max Q Clear Time (g_c+I1), s	18.7	5.7	31.4	18.9	2.0	19.4
Green Ext Time (p_c), s	1.2	0.0	13.6	0.0	0.0	8.2

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	243	245	86	164	197	169	759	65	273	1003	110
Future Volume (veh/h)	105	243	245	86	164	197	169	759	65	273	1003	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	112	259	261	91	174	210	180	807	69	290	1067	117
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	130	1097	489	112	1061	473	203	920	410	312	1136	507
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.12	0.28	0.28	0.19	0.34	0.34
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	112	259	261	91	174	210	180	807	69	290	1067	117
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	8.5	7.3	18.4	6.9	4.8	14.4	13.6	29.7	4.5	22.0	39.9	7.2
Cycle Q Clear(g_c), s	8.5	7.3	18.4	6.9	4.8	14.4	13.6	29.7	4.5	22.0	39.9	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	1097	489	112	1061	473	203	920	410	312	1136	507
V/C Ratio(X)	0.86	0.24	0.53	0.82	0.16	0.44	0.89	0.88	0.17	0.93	0.94	0.23
Avail Cap(c_a), veh/h	130	1097	489	135	1061	473	209	960	428	313	1167	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	31.3	35.0	59.1	31.4	34.7	55.5	44.4	35.2	51.4	41.0	30.2
Incr Delay (d2), s/veh	40.8	0.5	4.1	26.4	0.3	3.0	32.8	9.0	0.2	33.2	14.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.9	6.9	3.7	1.9	5.4	7.4	12.9	1.6	11.6	17.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.3	31.8	39.1	85.5	31.8	37.7	88.3	53.4	35.4	84.6	54.9	30.4
LnGrp LOS	F	C	D	F	C	D	F	D	D	F	D	C
Approach Vol, veh/h		632			475			1056			1474	
Approach Delay, s/veh		46.8			44.7			58.2			58.8	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	46.8	20.1	48.3	14.5	45.4	28.5	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	40.5	16.1	45.0	10.0	40.9	24.1	37.0
Max Q Clear Time (g_c+I1), s	8.9	20.4	15.6	41.9	10.5	16.4	24.0	31.7
Green Ext Time (p_c), s	0.0	2.2	0.0	1.9	0.0	1.6	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

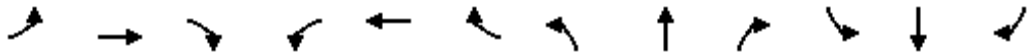
Intersection	
Int Delay, s/veh	12.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Future Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	2	26	8	5	5	27	256	21	2	212	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	28	0	0	294	161	15	298	172	8
Stage 1	-	-	-	-	-	-	135	135	-	24	24	-
Stage 2	-	-	-	-	-	-	159	26	-	274	148	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1584	-	-	1560	-	-	650	724	1053	646	714	1062
Stage 1	-	-	-	-	-	-	859	777	-	984	867	-
Stage 2	-	-	-	-	-	-	834	866	-	723	767	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1584	-	-	1560	-	-	452	692	1053	437	683	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	452	692	-	437	683	-
Stage 1	-	-	-	-	-	-	825	747	-	946	863	-
Stage 2	-	-	-	-	-	-	592	862	-	448	737	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5	3.3	14.6	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	676	1584	-	-	1560	-	-	737
HCM Lane V/C Ratio	0.45	0.038	-	-	0.005	-	-	0.37
HCM Control Delay (s)	14.6	7.4	0	-	7.3	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.3	0.1	-	-	0	-	-	1.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	688	51	42	610	155	56	64	33	209	71	213
Future Volume (veh/h)	114	688	51	42	610	155	56	64	33	209	71	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	120	724	54	44	642	163	59	67	35	220	75	224
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	158	1213	541	82	1060	473	178	177	67	498	117	351
Arrive On Green	0.09	0.35	0.35	0.05	0.31	0.31	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	226	603	230	1252	400	1196
Grp Volume(v), veh/h	120	724	54	44	642	163	161	0	0	220	0	299
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1058	0	0	1252	0	1596
Q Serve(g_s), s	3.0	7.6	1.0	1.1	7.0	3.6	0.5	0.0	0.0	0.3	0.0	7.2
Cycle Q Clear(g_c), s	3.0	7.6	1.0	1.1	7.0	3.6	7.7	0.0	0.0	8.0	0.0	7.2
Prop In Lane	1.00		1.00	1.00		1.00	0.37		0.22	1.00		0.75
Lane Grp Cap(c), veh/h	158	1213	541	82	1060	473	422	0	0	498	0	468
V/C Ratio(X)	0.76	0.60	0.10	0.54	0.61	0.34	0.38	0.00	0.00	0.44	0.00	0.64
Avail Cap(c_a), veh/h	1059	3090	1378	1059	3090	1378	1276	0	0	1269	0	1451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	11.7	9.6	20.5	12.9	11.8	12.3	0.0	0.0	13.8	0.0	13.5
Incr Delay (d2), s/veh	7.2	0.5	0.1	5.4	0.6	0.4	0.6	0.0	0.0	0.6	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.9	0.2	0.5	1.8	0.9	1.1	0.0	0.0	1.7	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	12.2	9.6	25.9	13.5	12.2	12.9	0.0	0.0	14.5	0.0	15.0
LnGrp LOS	C	B	A	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		898			849			161			519	
Approach Delay, s/veh		13.9			13.9			12.9			14.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	20.0		17.4	8.5	18.0		17.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	3.1	9.6		10.0	5.0	9.0		9.7				
Green Ext Time (p_c), s	0.1	4.8		2.9	0.3	4.6		1.0				

Intersection Summary			
HCM 6th Ctrl Delay		14.0	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	421	51	67	275	60	44	74	125	179	173	103
Future Volume (veh/h)	50	421	51	67	275	60	44	74	125	179	173	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	65	547	66	87	357	78	57	96	162	232	225	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	136	703	85	147	805	359	147	247	374	299	257	149
Arrive On Green	0.08	0.23	0.23	0.09	0.24	0.24	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1682	3017	363	1682	3357	1497	209	485	735	495	505	293
Grp Volume(v), veh/h	65	304	309	87	357	78	315	0	0	591	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1701	1682	1678	1497	1430	0	0	1294	0	0
Q Serve(g_s), s	3.9	17.8	17.9	5.2	9.5	4.4	0.0	0.0	0.0	31.0	0.0	0.0
Cycle Q Clear(g_c), s	3.9	17.8	17.9	5.2	9.5	4.4	13.3	0.0	0.0	44.3	0.0	0.0
Prop In Lane	1.00		0.21	1.00		1.00	0.18		0.51	0.39		0.23
Lane Grp Cap(c), veh/h	136	391	396	147	805	359	767	0	0	705	0	0
V/C Ratio(X)	0.48	0.78	0.78	0.59	0.44	0.22	0.41	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	173	471	477	184	964	430	869	0	0	802	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.2	37.8	37.8	46.2	34.0	32.1	15.8	0.0	0.0	24.4	0.0	0.0
Incr Delay (d2), s/veh	2.6	12.1	12.2	3.7	1.4	1.1	1.3	0.0	0.0	10.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	8.1	8.3	2.2	3.8	1.6	4.6	0.0	0.0	14.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	49.9	50.0	49.9	35.4	33.2	17.1	0.0	0.0	34.7	0.0	0.0
LnGrp LOS	D	D	D	D	D	C	B	A	A	C	A	A
Approach Vol, veh/h		678			522			315			591	
Approach Delay, s/veh		49.9			37.5			17.1			34.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	31.5		60.5	12.5	32.2		60.5				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	7.2	19.9		15.3	5.9	11.5		46.3				
Green Ext Time (p_c), s	0.1	4.6		5.7	0.0	5.0		7.2				

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

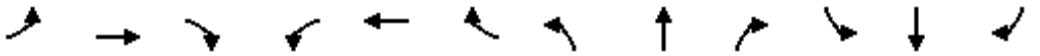
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	15	0	0	0
Future Vol, veh/h	0	23	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	52	34	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	86	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1591	-	-	-	920	1045
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	920	1045
Mov Cap-2 Maneuver	-	-	-	-	920	-
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	866	8	12	602	84	9	4	11	249	11	184
Future Volume (veh/h)	73	866	8	12	602	84	9	4	11	249	11	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
Adj Flow Rate, veh/h	77	912	8	13	634	88	9	4	12	262	12	194
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	93	1189	10	25	1034	461	18	30	90	307	22	354
Arrive On Green	0.06	0.39	0.39	0.02	0.34	0.34	0.01	0.09	0.09	0.20	0.28	0.28
Sat Flow, veh/h	1514	3069	27	1514	3021	1347	1514	350	1051	1514	79	1280
Grp Volume(v), veh/h	77	449	471	13	634	88	9	0	16	262	0	206
Grp Sat Flow(s),veh/h/ln	1514	1510	1585	1514	1510	1347	1514	0	1401	1514	0	1360
Q Serve(g_s), s	2.9	15.1	15.1	0.5	10.2	2.7	0.3	0.0	0.6	9.8	0.0	7.6
Cycle Q Clear(g_c), s	2.9	15.1	15.1	0.5	10.2	2.7	0.3	0.0	0.6	9.8	0.0	7.6
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.75	1.00		0.94
Lane Grp Cap(c), veh/h	93	585	614	25	1034	461	18	0	120	307	0	376
V/C Ratio(X)	0.83	0.77	0.77	0.53	0.61	0.19	0.51	0.00	0.13	0.85	0.00	0.55
Avail Cap(c_a), veh/h	401	1305	1369	401	2609	1164	401	0	491	401	0	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	15.6	15.6	28.5	16.0	13.5	28.7	0.0	24.7	22.5	0.0	18.0
Incr Delay (d2), s/veh	16.5	2.1	2.0	16.4	0.6	0.2	21.1	0.0	0.5	12.9	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.1	4.3	0.3	2.8	0.8	0.2	0.0	0.2	4.3	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	17.7	17.7	44.9	16.6	13.7	49.8	0.0	25.2	35.4	0.0	19.3
LnGrp LOS	D	B	B	D	B	B	D	A	C	D	A	B
Approach Vol, veh/h		997			735			25			468	
Approach Delay, s/veh		19.7			16.8			34.1			28.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	27.2	5.2	20.7	8.1	24.5	16.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.5	17.1	2.3	9.6	4.9	12.2	11.8	2.6
Green Ext Time (p_c), s	0.0	5.5	0.0	0.9	0.1	4.3	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	159	37	35	30	8	30	90	85	11	39	7
Future Vol, veh/h	9	159	37	35	30	8	30	90	85	11	39	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	209	49	46	39	11	39	118	112	14	51	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.6	9.1	10.4	8.9
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	4%	48%	19%
Vol Thru, %	44%	78%	41%	68%
Vol Right, %	41%	18%	11%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	205	73	57
LT Vol	30	9	35	11
Through Vol	90	159	30	39
RT Vol	85	37	8	7
Lane Flow Rate	270	270	96	75
Geometry Grp	1	1	1	1
Degree of Util (X)	0.355	0.362	0.138	0.108
Departure Headway (Hd)	4.744	4.828	5.181	5.181
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	753	739	685	684
Service Time	2.811	2.897	3.268	3.269
HCM Lane V/C Ratio	0.359	0.365	0.14	0.11
HCM Control Delay	10.4	10.6	9.1	8.9
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.6	1.7	0.5	0.4

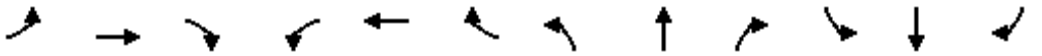
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	23	0	0	0	15	217	0	0	140	0
Future Vol, veh/h	0	0	23	0	0	0	15	217	0	0	140	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	26	0	0	0	17	241	0	0	156	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	431	431	156	444	431	241	156	0	0	241	0	0
Stage 1	156	156	-	275	275	-	-	-	-	-	-	-
Stage 2	275	275	-	169	156	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	523	507	872	512	507	781	1382	-	-	1286	-	-
Stage 1	830	755	-	716	670	-	-	-	-	-	-	-
Stage 2	716	670	-	817	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	517	500	872	492	500	781	1382	-	-	1286	-	-
Mov Cap-2 Maneuver	517	500	-	492	500	-	-	-	-	-	-	-
Stage 1	818	755	-	706	661	-	-	-	-	-	-	-
Stage 2	706	661	-	793	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	0	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	872	-	1286	-	-
HCM Lane V/C Ratio	0.012	-	-	0.029	-	-	-	-
HCM Control Delay (s)	7.6	0	-	9.3	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Future Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1081	482	231	1176	525	281	677	302	267	649	290
Arrive On Green	0.10	0.31	0.31	0.13	0.33	0.33	0.16	0.19	0.19	0.15	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.6	15.7	17.4	8.6	8.5	9.8	10.7	10.0	9.4	10.1	10.4	2.6
Cycle Q Clear(g_c), s	6.6	15.7	17.4	8.6	8.5	9.8	10.7	10.0	9.4	10.1	10.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1081	482	231	1176	525	281	677	302	267	649	290
V/C Ratio(X)	0.80	0.71	0.77	0.83	0.40	0.46	0.85	0.69	0.65	0.84	0.73	0.20
Avail Cap(c_a), veh/h	334	1657	739	334	1657	739	421	1227	547	421	1227	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	25.1	25.7	34.7	21.0	21.5	33.5	30.8	30.5	33.8	31.5	28.3
Incr Delay (d2), s/veh	7.8	0.9	2.6	10.8	0.2	0.6	9.9	1.2	2.3	8.4	1.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.8	6.2	4.1	3.1	3.4	5.1	4.1	3.5	4.7	4.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	26.0	28.3	45.5	21.2	22.1	43.4	32.0	32.8	42.2	33.1	28.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1277			906			897			756	
Approach Delay, s/veh		28.7			26.6			35.2			35.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	29.6	17.5	19.6	13.0	31.8	16.9	20.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.6	19.4	12.7	12.4	8.6	11.8	12.1	12.0
Green Ext Time (p_c), s	0.2	5.7	0.4	2.7	0.2	3.6	0.3	3.1

Intersection Summary	
HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	287.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	46	101	71	4	112	55	667	105	147	847	9
Future Vol, veh/h	78	46	101	71	4	112	55	667	105	147	847	9
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	104	61	135	95	5	149	73	889	140	196	1129	12
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	110.1	32	290.3	371.9
HCM LOS	F	D	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	35%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	68%	20%	0%	3%	0%	100%	97%
Vol Right, %	0%	0%	32%	45%	0%	97%	0%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	445	327	225	71	116	147	565	291
LT Vol	55	0	0	78	71	0	147	0	0
Through Vol	0	445	222	46	0	4	0	565	282
RT Vol	0	0	105	101	0	112	0	0	9
Lane Flow Rate	73	593	436	300	95	155	196	753	388
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.232	1.796	1.295	1.026	0.349	0.52	0.606	2.222	1.144
Departure Headway (Hd)	12.836	12.306	12.067	15.841	16.903	15.673	12.21	11.681	11.658
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	282	302	306	231	214	232	298	316	315
Service Time	10.536	10.006	9.767	13.541	14.603	13.373	9.91	9.381	9.358
HCM Lane V/C Ratio	0.259	1.964	1.425	1.299	0.444	0.668	0.658	2.383	1.232
HCM Control Delay	19.4	399.1	188.1	110.1	28.4	34.2	32	584.8	130.7
HCM Lane LOS	C	F	F	F	D	D	D	F	F
HCM 95th-tile Q	0.9	34.8	18.7	9.7	1.5	2.7	3.7	52	14.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	33	254	99	25	3	88	683	192	12	934	75
Future Volume (veh/h)	127	33	254	99	25	3	88	683	192	12	934	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	39	302	118	30	4	105	813	229	14	1112	89
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	190	418	355	150	376	319	135	1544	689	29	1334	595
Arrive On Green	0.11	0.23	0.23	0.09	0.20	0.20	0.08	0.44	0.44	0.02	0.38	0.38
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	151	39	302	118	30	4	105	813	229	14	1112	89
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	6.6	1.3	14.6	5.2	1.0	0.2	4.6	13.3	7.6	0.6	22.7	2.9
Cycle Q Clear(g_c), s	6.6	1.3	14.6	5.2	1.0	0.2	4.6	13.3	7.6	0.6	22.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	190	418	355	150	376	319	135	1544	689	29	1334	595
V/C Ratio(X)	0.79	0.09	0.85	0.79	0.08	0.01	0.78	0.53	0.33	0.48	0.83	0.15
Avail Cap(c_a), veh/h	390	1031	873	234	867	734	279	1891	844	112	1557	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	24.0	29.1	35.2	25.3	24.9	35.6	16.0	14.4	38.3	22.0	15.9
Incr Delay (d2), s/veh	7.3	0.1	5.8	9.1	0.1	0.0	9.3	0.3	0.3	11.5	3.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.6	5.6	2.5	0.5	0.1	2.2	4.7	2.4	0.3	8.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	24.1	34.9	44.3	25.4	25.0	44.9	16.2	14.6	49.8	25.6	16.1
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		492			152			1147			1215	
Approach Delay, s/veh		36.1			40.1			18.6			25.2	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	22.4	10.5	34.5	13.0	20.6	5.8	39.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	7.2	16.6	6.6	24.7	8.6	3.0	2.6	15.3
Green Ext Time (p_c), s	0.1	1.3	0.1	5.3	0.2	0.1	0.0	6.8

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	430	246	48	228	109	111	596	83	152	977	104
Future Volume (veh/h)	157	430	246	48	228	109	111	596	83	152	977	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	183	500	286	56	265	127	129	693	97	177	1136	121
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	213	707	403	71	870	388	154	1209	539	207	1315	587
Arrive On Green	0.12	0.33	0.33	0.04	0.25	0.25	0.09	0.35	0.35	0.12	0.38	0.38
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	183	407	379	56	265	127	129	693	97	177	1136	121
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	11.7	23.1	23.3	3.6	7.0	7.6	8.2	18.4	4.9	11.3	34.1	5.9
Cycle Q Clear(g_c), s	11.7	23.1	23.3	3.6	7.0	7.6	8.2	18.4	4.9	11.3	34.1	5.9
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	576	534	71	870	388	154	1209	539	207	1315	587
V/C Ratio(X)	0.86	0.71	0.71	0.78	0.30	0.33	0.84	0.57	0.18	0.86	0.86	0.21
Avail Cap(c_a), veh/h	289	576	534	77	870	388	154	1235	551	297	1520	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	32.9	33.0	53.7	34.3	34.5	50.7	30.0	25.6	48.8	32.4	23.6
Incr Delay (d2), s/veh	17.3	7.1	7.8	37.8	0.9	2.2	31.5	0.6	0.2	15.2	4.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	10.2	9.6	2.3	2.9	3.0	4.9	7.5	1.8	5.7	14.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	40.1	40.8	91.5	35.2	36.8	82.2	30.6	25.7	64.0	37.2	23.8
LnGrp LOS	E	D	D	F	D	D	F	C	C	E	D	C
Approach Vol, veh/h		969			448			919			1434	
Approach Delay, s/veh		45.2			42.7			37.3			39.4	
Approach LOS		D			D			D			D	

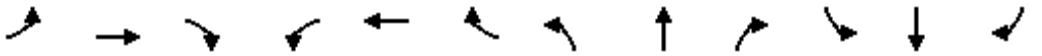
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	42.0	14.5	47.3	18.3	32.8	17.9	43.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.6	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	15.6	25.3	10.2	36.1	13.7	9.6	13.3	20.4
Green Ext Time (p_c), s	0.0	3.5	0.0	6.7	0.2	1.5	0.2	4.7

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	56	79	796	123	83	1174
Future Volume (veh/h)	56	79	796	123	83	1174
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	62	88	884	137	92	1304
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1812	281	116	2453
Arrive On Green	0.23	0.23	0.59	0.59	0.07	0.70
Sat Flow, veh/h	1767	1572	3152	474	1767	3618
Grp Volume(v), veh/h	62	88	509	512	92	1304
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1770	1767	1763
Q Serve(g_s), s	3.4	5.5	19.9	19.9	6.2	21.4
Cycle Q Clear(g_c), s	3.4	5.5	19.9	19.9	6.2	21.4
Prop In Lane	1.00	1.00		0.27	1.00	
Lane Grp Cap(c), veh/h	405	360	1044	1049	116	2453
V/C Ratio(X)	0.15	0.24	0.49	0.49	0.79	0.53
Avail Cap(c_a), veh/h	405	360	1044	1049	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	37.8	14.0	14.0	55.2	8.8
Incr Delay (d2), s/veh	0.8	1.6	1.6	1.6	11.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.4	7.8	7.9	3.0	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.7	39.4	15.6	15.6	66.4	9.6
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	150		1021			1396
Approach Delay, s/veh	38.7		15.6			13.4
Approach LOS	D		B			B

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		88.0		32.0	12.4	75.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s		23.4		7.5	8.2	21.9
Green Ext Time (p_c), s		12.5		0.4	0.1	7.5

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1067	59	60	1028	70	41	29	103	50	18	12
Future Volume (veh/h)	17	1067	59	60	1028	70	41	29	103	50	18	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	18	1173	65	66	1130	76	45	32	113	54	20	13
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	146	1600	89	97	1490	100	145	47	166	88	103	67
Arrive On Green	0.08	0.47	0.47	0.06	0.44	0.44	0.08	0.13	0.13	0.05	0.10	0.10
Sat Flow, veh/h	1781	3396	188	1767	3352	225	1767	362	1278	1781	1058	688
Grp Volume(v), veh/h	18	608	630	66	594	612	45	0	145	54	0	33
Grp Sat Flow(s),veh/h/ln	1781	1763	1822	1767	1763	1815	1767	0	1640	1781	0	1747
Q Serve(g_s), s	0.6	17.0	17.0	2.2	17.2	17.3	1.5	0.0	5.2	1.8	0.0	1.1
Cycle Q Clear(g_c), s	0.6	17.0	17.0	2.2	17.2	17.3	1.5	0.0	5.2	1.8	0.0	1.1
Prop In Lane	1.00		0.10	1.00		0.12	1.00		0.78	1.00		0.39
Lane Grp Cap(c), veh/h	146	830	858	97	783	807	145	0	213	88	0	169
V/C Ratio(X)	0.12	0.73	0.73	0.68	0.76	0.76	0.31	0.00	0.68	0.62	0.00	0.20
Avail Cap(c_a), veh/h	528	1603	1657	298	1378	1419	524	0	736	257	0	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	13.0	13.0	28.3	14.2	14.2	26.4	0.0	25.4	28.5	0.0	25.4
Incr Delay (d2), s/veh	0.4	1.3	1.2	7.9	1.5	1.5	1.2	0.0	3.8	6.9	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.9	5.1	1.0	5.2	5.3	0.6	0.0	2.1	0.9	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	14.3	14.3	36.2	15.7	15.7	27.6	0.0	29.2	35.3	0.0	25.9
LnGrp LOS	C	B	B	D	B	B	C	A	C	D	A	C
Approach Vol, veh/h		1256			1272			190			87	
Approach Delay, s/veh		14.5			16.8			28.8			31.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	33.3	9.5	10.4	9.5	31.6	7.5	12.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.3	55.5	18.1	18.1	18.1	47.7	8.8	27.4
Max Q Clear Time (g_c+I1), s	4.2	19.0	3.5	3.1	2.6	19.3	3.8	7.2
Green Ext Time (p_c), s	0.0	8.6	0.1	0.1	0.0	7.9	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	249	18	97	157	40	8	69	159	21	40	9
Future Vol, veh/h	25	249	18	97	157	40	8	69	159	21	40	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	29	286	21	111	180	46	9	79	183	24	46	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	226	0	0	307	0	0	808	803	297	911	790	203
Stage 1	-	-	-	-	-	-	355	355	-	425	425	-
Stage 2	-	-	-	-	-	-	453	448	-	486	365	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1348	-	-	1259	-	-	301	318	745	256	324	840
Stage 1	-	-	-	-	-	-	664	631	-	609	588	-
Stage 2	-	-	-	-	-	-	588	575	-	565	625	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1348	-	-	1259	-	-	240	284	745	140	289	840
Mov Cap-2 Maneuver	-	-	-	-	-	-	240	284	-	140	289	-
Stage 1	-	-	-	-	-	-	649	617	-	596	536	-
Stage 2	-	-	-	-	-	-	484	524	-	364	611	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	2.7	19.9	28.2
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	240	500	1348	-	-	1259	-	-	234
HCM Lane V/C Ratio	0.038	0.524	0.021	-	-	0.089	-	-	0.344
HCM Control Delay (s)	20.6	19.9	7.7	-	-	8.1	-	-	28.2
HCM Lane LOS	C	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	3	0.1	-	-	0.3	-	-	1.5

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	164	82	69	79	1	50	0	64	0	1	1
Future Vol, veh/h	0	164	82	69	79	1	50	0	64	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	184	92	78	89	1	56	0	72	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	90	0	0	276	0	0	477	476	230	512	522	90
Stage 1	-	-	-	-	-	-	230	230	-	246	246	-
Stage 2	-	-	-	-	-	-	247	246	-	266	276	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1512	-	-	1293	-	-	500	489	812	474	461	971
Stage 1	-	-	-	-	-	-	775	716	-	760	704	-
Stage 2	-	-	-	-	-	-	759	704	-	742	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1512	-	-	1293	-	-	474	458	812	411	431	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	474	458	-	411	431	-
Stage 1	-	-	-	-	-	-	775	716	-	760	659	-
Stage 2	-	-	-	-	-	-	708	659	-	676	684	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.7	12.3	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	619	1512	-	-	1293	-	-	597
HCM Lane V/C Ratio	0.207	-	-	-	0.06	-	-	0.004
HCM Control Delay (s)	12.3	0	-	-	8	0	-	11.1
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	0

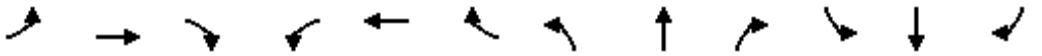
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	22	0	4	0	124	22	11	106	0
Future Vol, veh/h	0	0	0	22	0	4	0	124	22	11	106	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	24	0	4	0	133	24	12	114	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	285	295	114	283	283	145	114	0	0	157	0	0
Stage 1	138	138	-	145	145	-	-	-	-	-	-	-
Stage 2	147	157	-	138	138	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	671	620	944	673	629	908	1488	-	-	1435	-	-
Stage 1	870	786	-	863	781	-	-	-	-	-	-	-
Stage 2	860	772	-	870	786	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	663	614	944	668	623	908	1488	-	-	1435	-	-
Mov Cap-2 Maneuver	663	614	-	668	623	-	-	-	-	-	-	-
Stage 1	870	779	-	863	781	-	-	-	-	-	-	-
Stage 2	856	772	-	862	779	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.4	0	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	-	696	1435	-	-
HCM Lane V/C Ratio	-	-	-	-	0.04	0.008	-	-
HCM Control Delay (s)	0	-	-	0	10.4	7.5	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Future Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	947	802	152	985	835	117	342	290	87	591	263
Arrive On Green	0.06	0.51	0.51	0.09	0.53	0.53	0.07	0.18	0.18	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	5.2	44.2	14.8	6.9	27.9	4.2	6.7	14.6	12.3	5.0	3.7	6.3
Cycle Q Clear(g_c), s	5.2	44.2	14.8	6.9	27.9	4.2	6.7	14.6	12.3	5.0	3.7	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	947	802	152	985	835	117	342	290	87	591	263
V/C Ratio(X)	0.80	0.92	0.45	0.80	0.70	0.15	3.96	0.82	0.70	1.44	0.25	0.41
Avail Cap(c_a), veh/h	115	947	802	267	985	835	117	673	571	87	1220	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	23.3	16.1	45.8	18.0	12.4	47.6	40.0	39.1	48.5	37.0	38.1
Incr Delay (d2), s/veh	31.3	15.7	1.8	9.4	4.1	0.4	1353.7	4.8	3.1	252.0	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	20.5	5.3	3.3	11.3	1.4	46.9	6.9	4.8	8.3	1.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.3	39.0	17.9	55.2	22.1	12.8	1401.4	44.8	42.2	300.5	37.2	39.1
LnGrp LOS	E	D	B	E	C	B	F	D	D	F	D	D
Approach Vol, veh/h		1327			935			947			384	
Approach Delay, s/veh		36.0			25.1			708.9			124.1	
Approach LOS		D			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	56.1	11.2	21.4	11.1	58.2	9.5	23.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.9	46.2	8.7	8.3	7.2	29.9	7.0	16.6
Green Ext Time (p_c), s	0.1	0.0	0.0	1.2	0.0	4.5	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	220.0
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	170	163	108	143	39	228	550	252	37	356	34
Future Volume (veh/h)	37	170	163	108	143	39	228	550	252	37	356	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	181	173	115	152	41	243	585	268	39	379	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	297	284	142	549	148	274	737	625	55	889	84
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.27	0.27
Sat Flow, veh/h	1781	879	840	1781	1419	383	1781	1870	1585	1781	3281	310
Grp Volume(v), veh/h	39	0	354	115	0	193	243	585	268	39	204	211
Grp Sat Flow(s),veh/h/ln	1781	0	1719	1781	0	1801	1781	1870	1585	1781	1777	1815
Q Serve(g_s), s	2.5	0.0	19.7	7.3	0.0	8.4	15.3	31.6	14.1	2.5	10.9	11.0
Cycle Q Clear(g_c), s	2.5	0.0	19.7	7.3	0.0	8.4	15.3	31.6	14.1	2.5	10.9	11.0
Prop In Lane	1.00		0.49	1.00		0.21	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	55	0	582	142	0	697	274	737	625	55	482	492
V/C Ratio(X)	0.71	0.00	0.61	0.81	0.00	0.28	0.89	0.79	0.43	0.71	0.42	0.43
Avail Cap(c_a), veh/h	95	0	582	210	0	697	365	737	625	98	482	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	31.6	51.9	0.0	24.1	47.5	30.6	25.3	55.1	34.4	34.5
Incr Delay (d2), s/veh	15.2	0.0	4.7	13.7	0.0	1.0	18.0	8.6	2.1	15.2	2.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	8.6	3.7	0.0	3.6	7.9	15.2	5.4	1.3	4.9	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	0.0	36.3	65.6	0.0	25.1	65.5	39.3	27.5	70.2	37.2	37.2
LnGrp LOS	E	A	D	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		393			308			1096			454	
Approach Delay, s/veh		39.7			40.3			42.2			40.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.3	22.2	35.6	8.1	48.9	8.1	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	21.7	17.3	13.0	4.5	10.4	4.5	33.6
Green Ext Time (p_c), s	0.1	1.7	0.3	1.9	0.0	1.0	0.0	3.5

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	449	83	111	243	245	188	861	149	255	480	70
Future Volume (veh/h)	134	449	83	111	243	245	188	861	149	255	480	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	458	85	113	248	250	192	879	152	260	490	71
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	1136	507	139	1086	484	222	1036	462	292	1175	524
Arrive On Green	0.09	0.32	0.32	0.08	0.31	0.31	0.12	0.29	0.29	0.16	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	137	458	85	113	248	250	192	879	152	260	490	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.3	12.3	4.7	7.7	6.4	16.0	13.0	28.6	9.2	17.5	13.1	3.9
Cycle Q Clear(g_c), s	9.3	12.3	4.7	7.7	6.4	16.0	13.0	28.6	9.2	17.5	13.1	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1136	507	139	1086	484	222	1036	462	292	1175	524
V/C Ratio(X)	0.83	0.40	0.17	0.81	0.23	0.52	0.86	0.85	0.33	0.89	0.42	0.14
Avail Cap(c_a), veh/h	254	1136	507	257	1086	484	377	1289	575	472	1477	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	32.6	30.0	55.7	31.8	35.1	52.7	40.9	34.1	50.2	31.9	28.8
Incr Delay (d2), s/veh	13.0	1.1	0.7	10.7	0.5	3.9	10.1	4.6	0.4	12.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	5.2	1.9	3.7	2.7	6.5	6.3	12.7	3.5	8.6	5.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	33.7	30.7	66.4	32.3	39.0	62.8	45.5	34.5	62.2	32.1	28.9
LnGrp LOS	E	C	C	E	C	D	E	D	C	E	C	C
Approach Vol, veh/h		680			611			1223			821	
Approach Delay, s/veh		40.2			41.3			46.8			41.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	43.7	19.8	45.1	15.8	42.0	24.6	40.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	37.3	26.0	51.0	17.5	37.5	32.5	44.5
Max Q Clear Time (g_c+I1), s	19.7	14.3	15.0	15.1	11.3	18.0	19.5	30.6
Green Ext Time (p_c), s	0.1	2.8	0.4	3.4	0.1	2.0	0.6	5.2

Intersection Summary	
HCM 6th Ctrl Delay	43.1
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	6	189	28	7	119
Future Vol, veh/h	21	6	189	28	7	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	23	7	210	31	8	132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	374	226	0	0	241	0
Stage 1	226	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	613	796	-	-	1286	-
Stage 1	795	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	609	796	-	-	1286	-
Mov Cap-2 Maneuver	609	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	857	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	643	1286	-
HCM Lane V/C Ratio	-	-	0.047	0.006	-
HCM Control Delay (s)	-	-	10.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	801	12	25	729	0	7	0	48	0	0	0
Future Volume (veh/h)	39	801	12	25	729	0	7	0	48	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	852	13	27	776	0	7	0	51			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	431	1996	30	41	2191	0	40	0	293			
Arrive On Green	0.62	0.62	0.62	0.03	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	623	3214	49	1598	3272	0	174	0	1267			
Grp Volume(v), veh/h	41	423	442	27	776	0	58	0	0			
Grp Sat Flow(s),veh/h/ln	623	1594	1669	1598	1594	0	1441	0	0			
Q Serve(g_s), s	3.2	15.1	15.1	1.8	11.1	0.0	3.6	0.0	0.0			
Cycle Q Clear(g_c), s	7.0	15.1	15.1	1.8	11.1	0.0	3.6	0.0	0.0			
Prop In Lane	1.00		0.03	1.00		0.00	0.12		0.88			
Lane Grp Cap(c), veh/h	431	990	1036	41	2191	0	333	0	0			
V/C Ratio(X)	0.10	0.43	0.43	0.66	0.35	0.00	0.17	0.00	0.00			
Avail Cap(c_a), veh/h	431	990	1036	181	2471	0	333	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.1	10.8	10.8	53.3	7.1	0.0	34.0	0.0	0.0			
Incr Delay (d2), s/veh	0.4	1.3	1.3	16.9	0.1	0.0	1.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.7	5.0	0.9	2.9	0.0	1.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	12.1	12.1	70.1	7.2	0.0	35.1	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		906			803			58				
Approach Delay, s/veh		12.0			9.3			35.1				
Approach LOS		B			A			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.3	73.0				80.3		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	3.8	17.1				13.1		5.6				
Green Ext Time (p_c), s	0.0	5.8				5.4		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.6									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	64	36	106	59	136	11	462	108	109	663	4
Future Volume (veh/h)	2	64	36	106	59	136	11	462	108	109	663	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	2	72	40	119	66	153	12	519	121	122	745	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	90	330	179	241	123	204	26	899	401	157	1184	6
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.02	0.27	0.27	0.09	0.35	0.35
Sat Flow, veh/h	7	1060	577	399	394	656	1668	3328	1485	1668	3395	18
Grp Volume(v), veh/h	114	0	0	338	0	0	12	519	121	122	365	384
Grp Sat Flow(s),veh/h/ln	1644	0	0	1450	0	0	1668	1664	1485	1668	1664	1749
Q Serve(g_s), s	0.0	0.0	0.0	6.0	0.0	0.0	0.3	5.6	2.7	3.0	7.6	7.6
Cycle Q Clear(g_c), s	2.1	0.0	0.0	8.5	0.0	0.0	0.3	5.6	2.7	3.0	7.6	7.6
Prop In Lane	0.02		0.35	0.35		0.45	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	599	0	0	568	0	0	26	899	401	157	581	610
V/C Ratio(X)	0.19	0.00	0.00	0.60	0.00	0.00	0.46	0.58	0.30	0.77	0.63	0.63
Avail Cap(c_a), veh/h	1603	0	0	1435	0	0	381	3883	1732	783	2342	2461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	12.7	0.0	0.0	20.3	13.1	12.1	18.4	11.3	11.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.0	0.0	0.0	12.2	0.6	0.4	7.9	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.4	0.0	0.0	0.2	1.4	0.6	1.2	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.8	0.0	0.0	13.7	0.0	0.0	32.5	13.7	12.5	26.3	12.4	12.4
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		114			338			652			871	
Approach Delay, s/veh		10.8			13.7			13.8			14.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	17.4	5.1	19.0	17.4	8.4	15.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	38.5	9.5	58.5	38.5	19.5	48.5
Max Q Clear Time (g_c+I1), s	4.1	2.3	9.6	10.5	5.0	7.6
Green Ext Time (p_c), s	0.7	0.0	4.3	2.4	0.2	3.6

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	313	253	182	416	97	85	445	78	66	537	271
Future Volume (veh/h)	257	313	253	182	416	97	85	445	78	66	537	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	337	272	196	447	104	91	478	84	71	577	291
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	311	940	419	231	780	348	115	1030	460	89	630	317
Arrive On Green	0.19	0.29	0.29	0.14	0.24	0.24	0.07	0.32	0.32	0.06	0.30	0.30
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	276	337	272	196	447	104	91	478	84	71	448	420
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	15.9	7.9	15.8	11.3	11.7	5.6	5.3	11.3	4.0	4.1	25.6	25.7
Cycle Q Clear(g_c), s	15.9	7.9	15.8	11.3	11.7	5.6	5.3	11.3	4.0	4.1	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	311	940	419	231	780	348	115	1030	460	89	490	458
V/C Ratio(X)	0.89	0.36	0.65	0.85	0.57	0.30	0.79	0.46	0.18	0.80	0.92	0.92
Avail Cap(c_a), veh/h	465	940	419	465	780	348	354	1340	598	198	515	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	26.6	29.4	39.8	31.8	29.5	43.6	25.8	23.4	44.5	32.0	32.0
Incr Delay (d2), s/veh	13.0	1.1	7.6	8.5	3.1	2.2	11.7	0.3	0.2	14.9	20.6	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	2.9	5.8	4.7	4.5	2.0	2.4	4.0	1.3	1.9	11.7	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	27.7	37.0	48.3	34.8	31.7	55.2	26.2	23.6	59.4	52.5	53.8
LnGrp LOS	D	C	D	D	C	C	E	C	C	E	D	D
Approach Vol, veh/h		885			747			653			939	
Approach Delay, s/veh		37.7			37.9			29.9			53.6	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	32.4	11.3	33.5	22.9	27.6	9.8	35.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	13.3	17.8	7.3	27.7	17.9	13.7	6.1	13.3
Green Ext Time (p_c), s	0.4	1.4	0.1	1.4	0.5	2.0	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	0	60	24	0	0	184	663	18	11	865	111
Future Volume (veh/h)	27	0	60	24	0	0	184	663	18	11	865	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	30	0	67	27	0	0	207	745	20	12	972	125
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	44	1129	504	41	1124	501	222	1473	657	23	1075	479
Arrive On Green	0.03	0.00	0.35	0.03	0.00	0.00	0.14	0.45	0.45	0.01	0.33	0.33
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	30	0	67	27	0	0	207	745	20	12	972	125
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	2.1	0.0	3.6	1.9	0.0	0.0	14.3	18.5	0.9	0.8	32.5	7.2
Cycle Q Clear(g_c), s	2.1	0.0	3.6	1.9	0.0	0.0	14.3	18.5	0.9	0.8	32.5	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	1129	504	41	1124	501	222	1473	657	23	1075	479
V/C Ratio(X)	0.68	0.00	0.13	0.66	0.00	0.00	0.93	0.51	0.03	0.53	0.90	0.26
Avail Cap(c_a), veh/h	107	1129	504	93	1124	501	222	1473	657	93	1158	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	0.0	25.3	54.8	0.0	0.0	48.5	21.9	17.1	55.6	36.2	27.8
Incr Delay (d2), s/veh	17.2	0.0	0.5	16.4	0.0	0.0	41.8	0.3	0.0	18.0	9.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.2	1.0	0.0	0.0	8.1	6.4	0.3	0.4	13.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.9	0.0	25.8	71.2	0.0	0.0	90.3	22.2	17.2	73.6	45.9	28.0
LnGrp LOS	E	A	C	E	A	A	F	C	B	E	D	C
Approach Vol, veh/h		97			27			972			1109	
Approach Delay, s/veh		40.1			71.2			36.6			44.2	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	44.0	20.0	42.1	7.6	43.8	6.1	56.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	3.9	5.6	16.3	34.5	4.1	0.0	2.8	20.5
Green Ext Time (p_c), s	0.0	0.2	0.0	3.1	0.0	0.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	804	168
Future Volume (veh/h)	20	0	32	1	0	1	282	868	20	6	804	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1009	23	7	935	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	322	0	171	180	30	84	192	1823	42	15	1472	657
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.12	0.56	0.56	0.01	0.45	0.45
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3270	75	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	505	527	7	935	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1709	1640	1636	1459
Q Serve(g_s), s	0.6	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.4	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	8.4	8.4	0.2	9.4	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	322	0	171	294	0	0	192	912	953	15	1472	657
V/C Ratio(X)	0.07	0.00	0.22	0.01	0.00	0.00	1.71	0.55	0.55	0.46	0.64	0.30
Avail Cap(c_a), veh/h	825	0	735	816	0	0	192	2815	2940	442	6128	2733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	17.1	16.7	0.0	0.0	18.9	6.0	6.0	21.1	9.1	7.5
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.0	340.0	0.5	0.5	19.8	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	19.5	1.0	1.1	0.1	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	0.0	17.7	16.7	0.0	0.0	358.9	6.6	6.6	40.9	9.5	7.7
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1360			1137	
Approach Delay, s/veh		17.5			16.7			91.5			9.4	
Approach LOS		B			B			F			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.5	9.5	23.7	9.5	4.9	28.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	5.0	80.0	21.5	11.5	73.5
Max Q Clear Time (g_c+I1), s	3.0	7.0	11.4	2.0	2.2	10.4
Green Ext Time (p_c), s	0.2	0.0	7.8	0.0	0.0	6.8

Intersection Summary	
HCM 6th Ctrl Delay	53.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	176	229	65	145	230	190	873	73	189	600	52
Future Volume (veh/h)	92	176	229	65	145	230	190	873	73	189	600	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	99	189	246	70	156	247	204	939	78	203	645	56
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
Arrive On Green	0.07	0.35	0.35	0.05	0.33	0.33	0.14	0.32	0.32	0.13	0.31	0.31
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	99	189	246	70	156	247	204	939	78	203	645	56
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.8	20.3	3.3
Cycle Q Clear(g_c), s	7.2	4.8	15.8	5.1	4.0	16.3	14.8	33.0	4.7	14.8	20.3	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	1188	530	88	1123	501	230	1059	472	224	1047	467
V/C Ratio(X)	0.82	0.16	0.46	0.80	0.14	0.49	0.89	0.89	0.17	0.91	0.62	0.12
Avail Cap(c_a), veh/h	129	1188	530	118	1123	501	277	1204	537	224	1099	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	27.4	31.0	58.1	28.8	32.9	52.6	40.3	30.7	53.0	36.3	30.5
Incr Delay (d2), s/veh	31.2	0.3	2.9	23.1	0.3	3.4	24.5	7.6	0.2	36.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.9	5.9	2.7	1.6	6.1	7.6	14.0	1.6	8.2	8.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.0	27.7	33.9	81.3	29.1	36.3	77.2	47.9	30.8	89.1	37.3	30.6
LnGrp LOS	F	C	C	F	C	D	E	D	C	F	D	C
Approach Vol, veh/h		534			473			1221			904	
Approach Delay, s/veh		41.7			40.6			51.7			48.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	48.4	21.4	43.2	13.4	46.0	21.0	43.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	42.3	20.4	40.6	9.5	41.5	16.5	44.5
Max Q Clear Time (g_c+I1), s	17.1	17.8	16.8	22.3	9.2	18.3	16.8	35.0
Green Ext Time (p_c), s	0.0	1.8	0.2	3.7	0.0	1.6	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

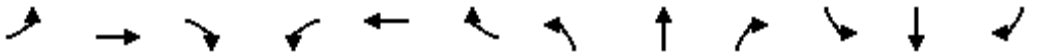
Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	5	4	0	8	17	157	1	0	121	56
Future Vol, veh/h	57	0	5	4	0	8	17	157	1	0	121	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	0	5	4	0	9	18	167	1	0	129	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	5	0	0	232	142	3	222	140	5
Stage 1	-	-	-	-	-	-	125	125	-	13	13	-
Stage 2	-	-	-	-	-	-	107	17	-	209	127	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1585	-	-	1590	-	-	714	742	1069	725	744	1067
Stage 1	-	-	-	-	-	-	869	785	-	997	877	-
Stage 2	-	-	-	-	-	-	889	873	-	784	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1585	-	-	1590	-	-	563	711	1069	575	713	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	563	711	-	575	713	-
Stage 1	-	-	-	-	-	-	835	754	-	958	874	-
Stage 2	-	-	-	-	-	-	714	870	-	586	752	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	2.4	12.1	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	695	1585	-	-	1590	-	-	797
HCM Lane V/C Ratio	0.268	0.038	-	-	0.003	-	-	0.236
HCM Control Delay (s)	12.1	7.4	0	-	7.3	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0	-	-	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	354	49	42	607	99	13	65	8	66	57	52
Future Volume (veh/h)	76	354	49	42	607	99	13	65	8	66	57	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	81	377	52	45	646	105	14	69	9	70	61	55
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	135	1265	564	88	1170	522	147	266	32	230	119	86
Arrive On Green	0.08	0.37	0.37	0.05	0.34	0.34	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	136	1427	169	454	639	459
Grp Volume(v), veh/h	81	377	52	45	646	105	92	0	0	186	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1733	0	0	1552	0	0
Q Serve(g_s), s	1.6	2.7	0.8	0.9	5.2	1.7	0.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	1.6	2.7	0.8	0.9	5.2	1.7	1.5	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.15		0.10	0.38		0.30
Lane Grp Cap(c), veh/h	135	1265	564	88	1170	522	444	0	0	434	0	0
V/C Ratio(X)	0.60	0.30	0.09	0.51	0.55	0.20	0.21	0.00	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	1362	3976	1774	1362	3976	1774	2081	0	0	1907	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.2	7.7	7.1	15.8	9.2	8.0	11.9	0.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	4.2	0.1	0.1	4.6	0.4	0.2	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.1	0.3	1.0	0.3	0.5	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	7.8	7.1	20.4	9.6	8.2	12.2	0.0	0.0	13.4	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		510			796			92			186	
Approach Delay, s/veh		9.6			10.0			12.2			13.4	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	17.1		10.9	7.2	16.1		10.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	2.9	4.7		5.7	3.6	7.2		3.5				
Green Ext Time (p_c), s	0.1	2.4		1.2	0.2	4.4		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			10.4									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	299	50	136	384	155	34	135	64	90	72	48
Future Volume (veh/h)	79	299	50	136	384	155	34	135	64	90	72	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	374	62	170	480	194	42	169	80	112	90	60
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	228	849	140	265	1061	473	107	280	121	213	156	85
Arrive On Green	0.13	0.29	0.29	0.15	0.31	0.31	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1711	2934	482	1711	3413	1522	151	1071	463	494	597	324
Grp Volume(v), veh/h	99	216	220	170	480	194	291	0	0	262	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1709	1711	1706	1522	1685	0	0	1416	0	0
Q Serve(g_s), s	3.2	6.3	6.4	5.7	6.9	6.1	0.0	0.0	0.0	0.9	0.0	0.0
Cycle Q Clear(g_c), s	3.2	6.3	6.4	5.7	6.9	6.1	9.1	0.0	0.0	9.9	0.0	0.0
Prop In Lane	1.00		0.28	1.00		1.00	0.14		0.27	0.43		0.23
Lane Grp Cap(c), veh/h	228	494	495	265	1061	473	508	0	0	454	0	0
V/C Ratio(X)	0.43	0.44	0.44	0.64	0.45	0.41	0.57	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	532	923	924	813	2404	1072	1138	0	0	990	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.3	17.6	17.7	24.2	16.9	16.6	20.1	0.0	0.0	20.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	2.2	2.3	2.6	1.1	2.1	3.7	0.0	0.0	4.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.3	2.3	2.1	2.3	2.0	3.7	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	19.9	20.0	26.8	18.0	18.7	23.7	0.0	0.0	24.3	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		535			844			291			262	
Approach Delay, s/veh		21.0			19.9			23.7			24.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	24.7		22.9	12.1	26.0		22.9				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.0	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	11.7	8.4		11.1	5.2	8.9		11.9				
Green Ext Time (p_c), s	0.4	5.7		4.4	0.2	10.1		4.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.4
HCM 6th LOS		C

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	13	0	9	0
Future Vol, veh/h	0	0	13	0	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	0	24	0	17	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	24	0	-	0	24	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1422	-	-	-	922	975
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1422	-	-	-	922	975
Mov Cap-2 Maneuver	-	-	-	-	922	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1422	-	-	-	922
HCM Lane V/C Ratio	-	-	-	-	0.018
HCM Control Delay (s)	0	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	373	6	7	716	2	3	0	4	1	0	0
Future Vol, veh/h	0	373	6	7	716	2	3	0	4	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	414	7	8	796	2	3	0	4	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	798	0	0	421	0	0	832	1232	211	1020	1234	399
Stage 1	-	-	-	-	-	-	418	418	-	813	813	-
Stage 2	-	-	-	-	-	-	414	814	-	207	421	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	776	-	-	1086	-	-	250	166	773	181	166	581
Stage 1	-	-	-	-	-	-	565	572	-	324	374	-
Stage 2	-	-	-	-	-	-	568	373	-	756	570	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	776	-	-	1086	-	-	249	165	773	179	165	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	249	165	-	179	165	-
Stage 1	-	-	-	-	-	-	565	572	-	324	371	-
Stage 2	-	-	-	-	-	-	564	370	-	752	570	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14	25.2
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	406	776	-	-	1086	-	-	179
HCM Lane V/C Ratio	0.019	-	-	-	0.007	-	-	0.006
HCM Control Delay (s)	14	0	-	-	8.3	-	-	25.2
HCM Lane LOS	B	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	87	34	33	106	22	19	35	25	17	62	8
Future Vol, veh/h	5	87	34	33	106	22	19	35	25	17	62	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	121	47	46	147	31	26	49	35	24	86	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	9.9	9	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	4%	20%	20%
Vol Thru, %	44%	69%	66%	71%
Vol Right, %	32%	27%	14%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	126	161	87
LT Vol	19	5	33	17
Through Vol	35	87	106	62
RT Vol	25	34	22	8
Lane Flow Rate	110	175	224	121
Geometry Grp	1	1	1	1
Degree of Util (X)	0.153	0.23	0.298	0.172
Departure Headway (Hd)	5.009	4.74	4.79	5.116
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	711	753	747	697
Service Time	3.076	2.799	2.845	3.181
HCM Lane V/C Ratio	0.155	0.232	0.3	0.174
HCM Control Delay	9	9.2	9.9	9.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.9	1.2	0.6

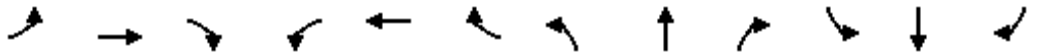
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	0	0	0	0	0	110	0	0	195	0
Future Vol, veh/h	6	0	0	0	0	0	0	110	0	0	195	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	9	0	0	0	0	0	0	169	0	0	300	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	469	469	300	469	469	169	300	0	0	169	0	0
Stage 1	300	300	-	169	169	-	-	-	-	-	-	-
Stage 2	169	169	-	300	300	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	495	483	726	495	483	860	1228	-	-	1373	-	-
Stage 1	696	655	-	819	747	-	-	-	-	-	-	-
Stage 2	819	747	-	696	655	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	495	483	726	495	483	860	1228	-	-	1373	-	-
Mov Cap-2 Maneuver	495	483	-	495	483	-	-	-	-	-	-	-
Stage 1	696	655	-	819	747	-	-	-	-	-	-	-
Stage 2	819	747	-	696	655	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	0	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1228	-	-	495	-	1373	-	-
HCM Lane V/C Ratio	-	-	-	0.019	-	-	-	-
HCM Control Delay (s)	0	-	-	12.4	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	305	120	123	537	63	174	108	68	38	173	51
Future Volume (veh/h)	28	305	120	123	537	63	174	108	68	38	173	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	31	339	133	137	597	70	193	120	76	42	192	57
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	62	720	321	179	954	426	252	913	407	78	298	253
Arrive On Green	0.04	0.21	0.21	0.10	0.27	0.27	0.14	0.26	0.26	0.04	0.16	0.16
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	1826	1547
Grp Volume(v), veh/h	31	339	133	137	597	70	193	120	76	42	192	57
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1826	1547
Q Serve(g_s), s	0.8	4.0	3.5	3.6	7.1	1.6	5.0	1.2	1.8	1.1	4.6	1.5
Cycle Q Clear(g_c), s	0.8	4.0	3.5	3.6	7.1	1.6	5.0	1.2	1.8	1.1	4.6	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	62	720	321	179	954	426	252	913	407	78	298	253
V/C Ratio(X)	0.50	0.47	0.41	0.77	0.63	0.16	0.77	0.13	0.19	0.54	0.64	0.23
Avail Cap(c_a), veh/h	571	2831	1263	571	2831	1263	719	2096	935	719	1103	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	16.4	16.2	20.6	15.0	13.0	19.4	13.3	13.5	22.0	18.5	17.1
Incr Delay (d2), s/veh	6.2	0.5	0.9	6.7	0.7	0.2	4.8	0.1	0.2	5.7	2.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.2	1.1	1.5	2.1	0.5	2.0	0.4	0.5	0.5	1.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	16.9	17.1	27.3	15.7	13.2	24.2	13.3	13.7	27.7	20.8	17.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		503			804			389			291	
Approach Delay, s/veh		17.7			17.4			18.8			21.2	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	14.3	11.3	12.2	6.2	17.5	6.6	16.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.6	6.0	7.0	6.6	2.8	9.1	3.1	3.8
Green Ext Time (p_c), s	0.2	2.4	0.4	1.1	0.0	3.9	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	4	42	143	30	70	68	274	76	69	378	39
Future Vol, veh/h	11	4	42	143	30	70	68	274	76	69	378	39
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	14	5	54	183	38	90	87	351	97	88	485	50
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.9	17.4	17.5	22
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	19%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	55%	7%	0%	30%	0%	100%	76%
Vol Right, %	0%	0%	45%	74%	0%	70%	0%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	183	167	57	143	100	69	252	165
LT Vol	68	0	0	11	143	0	69	0	0
Through Vol	0	183	91	4	0	30	0	252	126
RT Vol	0	0	76	42	0	70	0	0	39
Lane Flow Rate	87	234	215	73	183	128	88	323	212
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.208	0.525	0.461	0.186	0.464	0.289	0.206	0.707	0.453
Departure Headway (Hd)	8.583	8.069	7.742	9.149	9.118	8.113	8.39	7.877	7.707
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	417	445	463	395	394	441	426	456	465
Service Time	6.371	5.856	5.529	6.849	6.916	5.91	6.175	5.66	5.49
HCM Lane V/C Ratio	0.209	0.526	0.464	0.185	0.464	0.29	0.207	0.708	0.456
HCM Control Delay	13.6	19.5	17	13.9	19.6	14.2	13.4	27.7	16.8
HCM Lane LOS	B	C	C	B	C	B	B	D	C
HCM 95th-tile Q	0.8	3	2.4	0.7	2.4	1.2	0.8	5.4	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	9	71	258	41	7	206	357	98	4	423	116
Future Volume (veh/h)	36	9	71	258	41	7	206	357	98	4	423	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	11	86	311	49	8	248	430	118	5	510	140
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	168	143	369	477	404	302	1369	611	12	789	352
Arrive On Green	0.04	0.09	0.09	0.21	0.26	0.26	0.17	0.39	0.39	0.01	0.23	0.23
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	43	11	86	311	49	8	248	430	118	5	510	140
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	1.4	0.3	3.2	10.2	1.2	0.2	8.2	5.1	3.0	0.2	7.9	4.6
Cycle Q Clear(g_c), s	1.4	0.3	3.2	10.2	1.2	0.2	8.2	5.1	3.0	0.2	7.9	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	168	143	369	477	404	302	1369	611	12	789	352
V/C Ratio(X)	0.58	0.07	0.60	0.84	0.10	0.02	0.82	0.31	0.19	0.43	0.65	0.40
Avail Cap(c_a), veh/h	184	1062	900	518	1412	1197	459	2607	1163	146	1983	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	24.9	26.2	22.7	16.9	16.5	23.9	12.7	12.0	29.7	21.0	19.8
Incr Delay (d2), s/veh	6.8	0.2	4.1	8.8	0.1	0.0	7.0	0.1	0.2	22.9	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	1.2	4.8	0.5	0.1	3.6	1.7	0.9	0.1	2.9	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	25.1	30.2	31.5	17.0	16.6	30.9	12.8	12.2	52.5	21.9	20.5
LnGrp LOS	C	C	C	C	B	B	C	B	B	D	C	C
Approach Vol, veh/h		140			368			796			655	
Approach Delay, s/veh		31.3			29.2			18.3			21.9	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	10.0	14.8	18.0	7.1	20.0	4.9	28.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.3	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	12.2	5.2	10.2	9.9	3.4	3.2	2.2	7.1
Green Ext Time (p_c), s	0.5	0.3	0.3	3.6	0.0	0.3	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	210	184	84	382	103	223	518	103	78	536	133
Future Volume (veh/h)	51	210	184	84	382	103	223	518	103	78	536	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	61	253	222	101	460	124	269	624	124	94	646	160
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	78	633	535	126	1327	592	297	1167	521	118	811	362
Arrive On Green	0.04	0.36	0.36	0.07	0.38	0.38	0.17	0.34	0.34	0.07	0.23	0.23
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	61	246	229	101	460	124	269	624	124	94	646	160
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.7	11.4	11.9	6.1	10.1	5.8	16.2	15.6	6.2	5.7	18.8	9.5
Cycle Q Clear(g_c), s	3.7	11.4	11.9	6.1	10.1	5.8	16.2	15.6	6.2	5.7	18.8	9.5
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	616	552	126	1327	592	297	1167	521	118	811	362
V/C Ratio(X)	0.78	0.40	0.42	0.80	0.35	0.21	0.91	0.53	0.24	0.80	0.80	0.44
Avail Cap(c_a), veh/h	148	616	552	138	1327	592	301	1456	649	172	1200	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	25.9	26.1	48.9	23.5	22.2	43.5	28.7	25.6	49.1	38.6	35.0
Incr Delay (d2), s/veh	15.4	1.9	2.3	26.3	0.7	0.8	29.1	0.4	0.2	14.7	2.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.7	4.4	3.4	3.9	2.2	9.2	6.3	2.2	2.9	8.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	27.8	28.4	75.2	24.2	23.0	72.6	29.1	25.8	63.8	40.9	35.9
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		536			685			1017			900	
Approach Delay, s/veh		32.4			31.5			40.2			42.4	
Approach LOS		C			C			D			D	

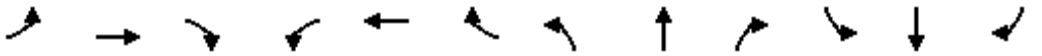
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	42.5	22.8	29.5	9.3	45.4	11.8	40.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	8.1	13.9	18.2	20.8	5.7	12.1	7.7	17.6
Green Ext Time (p_c), s	0.0	2.5	0.0	4.3	0.0	3.0	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	100	64	788	49	31	501
Future Volume (veh/h)	100	64	788	49	31	501
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	127	81	997	62	39	634
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1631	101	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3381	205	1725	3532
Grp Volume(v), veh/h	127	81	521	538	39	634
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1774	1725	1721
Q Serve(g_s), s	7.4	5.2	26.3	26.3	2.3	8.0
Cycle Q Clear(g_c), s	7.4	5.2	26.3	26.3	2.3	8.0
Prop In Lane	1.00	1.00		0.12	1.00	
Lane Grp Cap(c), veh/h	381	339	853	880	295	2423
V/C Ratio(X)	0.33	0.24	0.61	0.61	0.13	0.26
Avail Cap(c_a), veh/h	381	339	853	880	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	38.5	21.9	21.9	42.2	6.4
Incr Delay (d2), s/veh	2.3	1.7	1.3	1.2	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	5.0	10.7	11.0	1.1	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.7	40.1	23.2	23.1	43.1	6.7
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	208		1059			673
Approach Delay, s/veh	41.1		23.1			8.8
Approach LOS	D		C			A

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	89.0	31.0	25.0	64.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	84.5	26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s	10.0	9.4	4.3	28.3
Green Ext Time (p_c), s	5.2	0.5	0.1	8.4

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	495	19	115	967	96	56	21	103	81	35	19
Future Volume (veh/h)	10	495	19	115	967	96	56	21	103	81	35	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	562	22	131	1099	104	64	23	117	88	38	21
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	1295	51	172	1490	141	101	35	178	119	160	89
Arrive On Green	0.01	0.37	0.37	0.10	0.45	0.45	0.06	0.13	0.13	0.07	0.14	0.14
Sat Flow, veh/h	1781	3486	136	1781	3281	310	1781	267	1359	1781	1132	626
Grp Volume(v), veh/h	11	286	298	131	595	608	64	0	140	88	0	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1846	1781	1777	1815	1781	0	1626	1781	0	1758
Q Serve(g_s), s	0.3	6.7	6.7	4.0	15.2	15.3	1.9	0.0	4.5	2.7	0.0	1.7
Cycle Q Clear(g_c), s	0.3	6.7	6.7	4.0	15.2	15.3	1.9	0.0	4.5	2.7	0.0	1.7
Prop In Lane	1.00		0.07	1.00		0.17	1.00		0.84	1.00		0.36
Lane Grp Cap(c), veh/h	25	660	686	172	807	824	101	0	213	119	0	249
V/C Ratio(X)	0.44	0.43	0.43	0.76	0.74	0.74	0.64	0.00	0.66	0.74	0.00	0.24
Avail Cap(c_a), veh/h	582	1542	1602	530	1491	1523	595	0	775	338	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	13.0	13.0	24.4	12.4	12.4	25.6	0.0	22.9	25.4	0.0	21.1
Incr Delay (d2), s/veh	11.6	0.4	0.4	6.8	1.3	1.3	6.5	0.0	3.4	8.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.0	2.1	1.7	4.2	4.3	1.0	0.0	1.8	1.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	13.5	13.5	31.2	13.7	13.7	32.1	0.0	26.3	33.9	0.0	21.6
LnGrp LOS	D	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		595			1334			204			147	
Approach Delay, s/veh		14.0			15.5			28.1			29.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	25.5	7.6	12.4	5.3	30.1	8.2	11.9
Change Period (Y+Rc), s	4.5	* 4.9	4.5	* 4.6	4.5	* 4.9	4.5	* 4.6
Max Green Setting (Gmax), s	16.5	* 48	18.5	* 19	18.1	* 47	10.5	* 26
Max Q Clear Time (g_c+I1), s	6.0	8.7	3.9	3.7	2.3	17.3	4.7	6.5
Green Ext Time (p_c), s	0.2	3.1	0.1	0.2	0.0	7.9	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	105	5	107	185	12	4	38	82	34	32	22
Future Vol, veh/h	14	105	5	107	185	12	4	38	82	34	32	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	19	142	7	145	250	16	5	51	111	46	43	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	149	0	0	769	740	146	813	735	258
Stage 1	-	-	-	-	-	-	184	184	-	548	548	-
Stage 2	-	-	-	-	-	-	585	556	-	265	187	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1304	-	-	1439	-	-	319	346	904	298	348	783
Stage 1	-	-	-	-	-	-	820	749	-	522	519	-
Stage 2	-	-	-	-	-	-	499	514	-	742	747	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1304	-	-	1439	-	-	250	307	904	209	308	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	250	307	-	209	308	-
Stage 1	-	-	-	-	-	-	808	738	-	514	467	-
Stage 2	-	-	-	-	-	-	392	462	-	597	736	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	2.7	14.3	24.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	250	559	1304	-	-	1439	-	-	299
HCM Lane V/C Ratio	0.022	0.29	0.015	-	-	0.1	-	-	0.398
HCM Control Delay (s)	19.7	14.1	7.8	-	-	7.8	-	-	24.8
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	1.2	0	-	-	0.3	-	-	1.8

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	98	38	66	117	1	54	2	44	0	0	0
Future Vol, veh/h	0	98	38	66	117	1	54	2	44	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	117	45	79	139	1	64	2	52	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	140	0	0	162	0	0	438	438	140	465	460	140
Stage 1	-	-	-	-	-	-	140	140	-	298	298	-
Stage 2	-	-	-	-	-	-	298	298	-	167	162	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1443	-	-	1417	-	-	529	512	908	508	498	908
Stage 1	-	-	-	-	-	-	863	781	-	711	667	-
Stage 2	-	-	-	-	-	-	711	667	-	835	764	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1443	-	-	1417	-	-	505	481	908	455	468	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	505	481	-	455	468	-
Stage 1	-	-	-	-	-	-	863	781	-	711	627	-
Stage 2	-	-	-	-	-	-	668	627	-	784	764	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.8	12.1	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	627	1443	-	-	1417	-	-	-
HCM Lane V/C Ratio	0.19	-	-	-	0.055	-	-	-
HCM Control Delay (s)	12.1	0	-	-	7.7	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	-

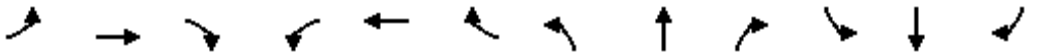
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	90	0	0	92	0
Future Vol, veh/h	0	0	0	0	0	0	0	90	0	0	92	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0	0	113	0	0	115	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	228	228	115	228	228	113	115	0	0	113	0	0
Stage 1	115	115	-	113	113	-	-	-	-	-	-	-
Stage 2	113	113	-	115	115	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	725	670	935	725	670	937	1468	-	-	1470	-	-
Stage 1	887	798	-	890	800	-	-	-	-	-	-	-
Stage 2	890	800	-	887	798	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	725	670	935	725	670	937	1468	-	-	1470	-	-
Mov Cap-2 Maneuver	725	670	-	725	670	-	-	-	-	-	-	-
Stage 1	887	798	-	890	800	-	-	-	-	-	-	-
Stage 2	890	800	-	887	798	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1468	-	-	-	-	1470	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	357	198	195	630	302	214	366	155	304	459	150
Future Volume (veh/h)	157	357	198	195	630	302	214	366	155	304	459	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	452	251	247	797	382	271	463	196	385	581	190
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	614	521	250	686	581	109	501	425	196	1125	502
Arrive On Green	0.10	0.33	0.33	0.14	0.37	0.37	0.06	0.27	0.27	0.11	0.32	0.32
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	199	452	251	247	797	382	271	463	196	385	581	190
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	12.0	25.1	14.8	16.3	43.1	23.6	7.2	28.3	12.1	12.9	15.7	10.9
Cycle Q Clear(g_c), s	12.0	25.1	14.8	16.3	43.1	23.6	7.2	28.3	12.1	12.9	15.7	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	614	521	250	686	581	109	501	425	196	1125	502
V/C Ratio(X)	1.09	0.74	0.48	0.99	1.16	0.66	2.48	0.92	0.46	1.97	0.52	0.38
Avail Cap(c_a), veh/h	182	614	521	250	686	581	109	541	459	196	1201	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	34.9	31.5	50.4	37.2	31.0	55.1	41.8	35.9	52.3	32.8	31.2
Incr Delay (d2), s/veh	94.0	7.7	3.2	53.2	88.3	5.7	693.7	20.9	0.8	453.8	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	12.0	5.9	10.6	34.9	9.5	24.2	15.4	4.6	30.3	6.6	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	146.8	42.6	34.6	103.6	125.5	36.7	748.9	62.7	36.7	506.1	33.2	31.6
LnGrp LOS	F	D	C	F	F	D	F	E	D	F	C	C
Approach Vol, veh/h		902			1426			930			1156	
Approach Delay, s/veh		63.4			97.9			257.2			190.4	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	41.7	16.5	47.6	17.4	36.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	18.3	27.1	9.2	17.7	14.0	45.1	14.9	30.3
Green Ext Time (p_c), s	0.0	2.5	0.0	4.2	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	148.6
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	115	265	253	171	56	140	417	120	51	664	80
Future Volume (veh/h)	69	115	265	253	171	56	140	417	120	51	664	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	134	308	294	199	65	163	485	140	59	772	93
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	156	359	322	586	191	191	584	495	76	792	95
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.11	0.31	0.31	0.04	0.25	0.25
Sat Flow, veh/h	1781	504	1158	1781	1350	441	1781	1870	1585	1781	3193	385
Grp Volume(v), veh/h	80	0	442	294	0	264	163	485	140	59	429	436
Grp Sat Flow(s),veh/h/ln	1781	0	1662	1781	0	1791	1781	1870	1585	1781	1777	1801
Q Serve(g_s), s	5.2	0.0	29.2	18.9	0.0	11.4	10.5	28.1	7.8	3.8	28.0	28.0
Cycle Q Clear(g_c), s	5.2	0.0	29.2	18.9	0.0	11.4	10.5	28.1	7.8	3.8	28.0	28.0
Prop In Lane	1.00		0.70	1.00		0.25	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	102	0	515	322	0	777	191	584	495	76	441	447
V/C Ratio(X)	0.79	0.00	0.86	0.91	0.00	0.34	0.85	0.83	0.28	0.78	0.97	0.98
Avail Cap(c_a), veh/h	157	0	515	360	0	777	217	584	495	87	441	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	0.0	37.9	46.9	0.0	22.0	51.3	37.3	30.3	55.4	43.6	43.6
Incr Delay (d2), s/veh	13.2	0.0	16.8	25.2	0.0	1.2	24.7	12.9	1.4	31.4	37.1	36.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	13.7	10.3	0.0	4.8	5.9	14.4	3.1	2.3	16.3	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	0.0	54.7	72.1	0.0	23.2	75.9	50.1	31.7	86.8	80.6	80.4
LnGrp LOS	E	A	D	E	A	C	E	D	C	F	F	F
Approach Vol, veh/h		522			558			788			924	
Approach Delay, s/veh		56.6			48.9			52.2			80.9	
Approach LOS		E			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	40.7	17.0	33.5	11.2	55.2	9.5	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	10.9	31.2	12.5	30.0	7.2	13.4	5.8	30.1
Green Ext Time (p_c), s	0.2	1.2	0.1	0.0	0.0	1.5	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	61.9
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	247	45	168	282	148	227	515	162	340	804	105
Future Volume (veh/h)	52	247	45	168	282	148	227	515	162	340	804	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	287	52	195	328	172	264	599	188	395	935	122
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	982	438	220	1268	565	291	808	360	424	1073	479
Arrive On Green	0.04	0.28	0.28	0.12	0.36	0.36	0.16	0.23	0.23	0.24	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	60	287	52	195	328	172	264	599	188	395	935	122
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.5	8.5	3.3	14.4	8.8	10.5	19.5	21.0	13.9	29.1	33.4	7.8
Cycle Q Clear(g_c), s	4.5	8.5	3.3	14.4	8.8	10.5	19.5	21.0	13.9	29.1	33.4	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	982	438	220	1268	565	291	808	360	424	1073	479
V/C Ratio(X)	0.78	0.29	0.12	0.89	0.26	0.30	0.91	0.74	0.52	0.93	0.87	0.25
Avail Cap(c_a), veh/h	170	982	438	260	1268	565	371	956	426	526	1264	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	38.1	36.2	57.7	30.5	31.1	55.0	48.0	45.3	49.9	44.2	35.3
Incr Delay (d2), s/veh	15.2	0.8	0.6	25.7	0.5	1.4	21.7	2.6	1.2	21.0	6.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.7	1.3	7.8	3.7	4.1	10.3	9.4	5.5	15.0	15.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.6	38.9	36.8	83.4	31.0	32.5	76.7	50.6	46.5	70.9	50.3	35.6
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	D	D
Approach Vol, veh/h		399			695			1051			1452	
Approach Delay, s/veh		44.6			46.1			56.4			54.7	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	41.5	26.4	44.9	10.3	52.2	36.4	34.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	37.0	27.9	47.6	12.8	43.7	39.5	36.0
Max Q Clear Time (g_c+I1), s	16.4	10.5	21.5	35.4	6.5	12.5	31.1	23.0
Green Ext Time (p_c), s	0.1	1.7	0.4	5.1	0.0	2.4	0.8	3.6

Intersection Summary	
HCM 6th Ctrl Delay	52.4
HCM 6th LOS	D

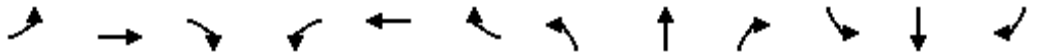
Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	9	92	19	5	160
Future Vol, veh/h	35	9	92	19	5	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	54	14	142	29	8	246

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	419	157	0	0	171	0
Stage 1	157	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	579	873	-	-	1371	-
Stage 1	857	-	-	-	-	-
Stage 2	768	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	575	873	-	-	1371	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	763	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	618	1371	-
HCM Lane V/C Ratio	-	-	0.11	0.006	-
HCM Control Delay (s)	-	-	11.5	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	822	6	61	768	0	20	0	40	0	0	0
Future Volume (veh/h)	40	822	6	61	768	0	20	0	40	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	893	7	66	835	0	22	0	43			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	432	2027	16	84	2299	0	109	0	213			
Arrive On Green	0.61	0.61	0.61	0.05	0.70	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	606	3327	26	1640	3358	0	513	0	1003			
Grp Volume(v), veh/h	43	439	461	66	835	0	65	0	0			
Grp Sat Flow(s),veh/h/ln	606	1636	1717	1640	1636	0	1516	0	0			
Q Serve(g_s), s	3.2	15.2	15.2	4.2	10.8	0.0	3.7	0.0	0.0			
Cycle Q Clear(g_c), s	4.1	15.2	15.2	4.2	10.8	0.0	3.7	0.0	0.0			
Prop In Lane	1.00		0.02	1.00		0.00	0.34		0.66			
Lane Grp Cap(c), veh/h	432	996	1046	84	2299	0	322	0	0			
V/C Ratio(X)	0.10	0.44	0.44	0.79	0.36	0.00	0.20	0.00	0.00			
Avail Cap(c_a), veh/h	432	996	1046	302	2735	0	322	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.1	11.1	11.1	49.7	6.3	0.0	34.3	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.4	1.3	15.0	0.1	0.0	1.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	4.9	5.1	2.0	2.7	0.0	1.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	12.5	12.4	64.7	6.4	0.0	35.7	0.0	0.0			
LnGrp LOS	A	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		943			901			65				
Approach Delay, s/veh		12.3			10.7			35.7				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.9	69.0				78.9		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	6.2	17.2				12.8		5.7				
Green Ext Time (p_c), s	0.1	6.1				5.9		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	62	17	88	60	102	43	756	102	178	512	0
Future Volume (veh/h)	6	62	17	88	60	102	43	756	102	178	512	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	7	70	19	100	68	116	49	859	116	202	582	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	81	321	82	192	111	147	83	1260	562	257	1607	0
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.37	0.37	0.15	0.47	0.00
Sat Flow, veh/h	43	1349	343	432	466	620	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	96	0	0	284	0	0	49	859	116	202	582	0
Grp Sat Flow(s),veh/h/ln	1735	0	0	1519	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	7.0	0.0	0.0	1.5	11.5	2.8	6.2	5.9	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	9.5	0.0	0.0	1.5	11.5	2.8	6.2	5.9	0.0
Prop In Lane	0.07		0.20	0.35		0.41	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	483	0	0	450	0	0	83	1260	562	257	1607	0
V/C Ratio(X)	0.20	0.00	0.00	0.63	0.00	0.00	0.59	0.68	0.21	0.79	0.36	0.00
Avail Cap(c_a), veh/h	900	0	0	816	0	0	521	3876	1729	584	4002	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	19.4	0.0	0.0	25.5	14.6	11.9	22.4	9.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.5	0.0	0.0	6.6	0.7	0.2	5.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	3.2	0.0	0.0	0.7	3.3	0.7	2.4	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	0.0	0.0	20.8	0.0	0.0	32.0	15.3	12.0	27.7	9.5	0.0
LnGrp LOS	B	A	A	C	A	A	C	B	B	C	A	A
Approach Vol, veh/h		96			284			1024			784	
Approach Delay, s/veh		17.0			20.8			15.7			14.2	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	17.5	7.1	30.0	17.5	12.6	24.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	16.5	63.5	26.5	18.5	61.5
Max Q Clear Time (g_c+I1), s	4.4	3.5	7.9	11.5	8.2	13.5
Green Ext Time (p_c), s	0.4	0.1	3.7	1.5	0.4	6.5

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	454	121	118	359	127	210	695	174	107	450	270
Future Volume (veh/h)	285	454	121	118	359	127	210	695	174	107	450	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	297	473	126	123	374	132	219	724	181	111	469	281
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	329	1072	478	152	719	321	249	1095	488	136	523	312
Arrive On Green	0.20	0.32	0.32	0.09	0.22	0.22	0.15	0.33	0.33	0.08	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	297	473	126	123	374	132	219	724	181	111	389	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	18.6	12.0	6.7	7.7	10.6	8.2	13.7	19.9	9.9	7.0	24.1	24.3
Cycle Q Clear(g_c), s	18.6	12.0	6.7	7.7	10.6	8.2	13.7	19.9	9.9	7.0	24.1	24.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	329	1072	478	152	719	321	249	1095	488	136	434	401
V/C Ratio(X)	0.90	0.44	0.26	0.81	0.52	0.41	0.88	0.66	0.37	0.82	0.90	0.90
Avail Cap(c_a), veh/h	429	1072	478	429	719	321	326	1235	551	182	475	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	28.2	26.4	47.3	36.6	35.6	44.1	30.3	27.0	47.9	37.7	37.7
Incr Delay (d2), s/veh	18.6	1.3	1.3	9.9	2.7	3.9	18.9	1.1	0.5	18.6	18.3	20.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	4.6	2.4	3.4	4.3	3.1	6.6	7.4	3.3	3.4	11.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	29.5	27.8	57.1	39.3	39.5	63.0	31.5	27.5	66.5	55.9	58.1
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		896			629			1124			861	
Approach Delay, s/veh		39.4			42.8			37.0			58.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	39.0	20.5	32.4	25.6	27.6	13.2	39.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	9.7	14.0	15.7	26.3	20.6	12.6	9.0	21.9
Green Ext Time (p_c), s	0.3	2.1	0.3	1.6	0.5	1.8	0.1	4.6

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	3	161	47	0	18	95	903	42	9	725	50
Future Volume (veh/h)	109	3	161	47	0	18	95	903	42	9	725	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	111	3	164	48	0	18	97	921	43	9	740	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	125	1406	627	61	1279	570	121	1110	495	18	905	403
Arrive On Green	0.08	0.43	0.43	0.04	0.00	0.39	0.07	0.34	0.34	0.01	0.28	0.28
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	111	3	164	48	0	18	97	921	43	9	740	51
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	6.6	0.1	7.1	2.9	0.0	0.7	5.7	25.5	2.0	0.5	20.8	2.6
Cycle Q Clear(g_c), s	6.6	0.1	7.1	2.9	0.0	0.7	5.7	25.5	2.0	0.5	20.8	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	1406	627	61	1279	570	121	1110	495	18	905	403
V/C Ratio(X)	0.89	0.00	0.26	0.79	0.00	0.03	0.80	0.83	0.09	0.50	0.82	0.13
Avail Cap(c_a), veh/h	125	1406	627	108	1279	570	258	1644	733	108	1345	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	16.0	18.0	47.1	0.0	18.5	44.9	29.9	22.2	48.4	33.3	26.7
Incr Delay (d2), s/veh	48.4	0.0	1.0	19.8	0.0	0.1	11.3	2.4	0.1	19.4	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	2.3	1.5	0.0	0.2	2.6	9.4	0.6	0.3	7.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.5	16.0	19.1	66.8	0.0	18.6	56.2	32.3	22.2	67.8	35.9	26.9
LnGrp LOS	F	B	B	E	A	B	E	C	C	E	D	C
Approach Vol, veh/h		278			66			1061			800	
Approach Delay, s/veh		48.8			53.7			34.1			35.7	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	46.8	11.8	31.7	12.0	43.0	5.6	37.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	4.9	9.1	7.7	22.8	8.6	2.7	2.5	27.5
Green Ext Time (p_c), s	0.0	0.6	0.1	4.3	0.0	0.0	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	877	3	1	988	32
Future Volume (veh/h)	149	0	252	7	0	3	61	877	3	1	988	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1083	4	1	1220	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	426	0	377	135	15	26	94	1839	7	3	1617	721
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.06	0.54	0.54	0.00	0.49	0.49
Sat Flow, veh/h	1323	0	1485	171	61	103	1668	3401	13	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	530	557	1	1220	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	335	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	13.1	0.1	0.0	0.0	2.9	14.2	14.2	0.0	19.7	0.9
Cycle Q Clear(g_c), s	8.7	0.0	13.1	13.2	0.0	0.0	2.9	14.2	14.2	0.0	19.7	0.9
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	426	0	377	177	0	0	94	900	946	3	1617	721
V/C Ratio(X)	0.43	0.00	0.82	0.07	0.00	0.00	0.80	0.59	0.59	0.40	0.75	0.06
Avail Cap(c_a), veh/h	559	0	526	289	0	0	126	1820	1913	264	3916	1747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	23.3	19.7	0.0	0.0	30.9	10.3	10.3	33.1	13.8	9.0
Incr Delay (d2), s/veh	0.7	0.0	7.3	0.2	0.0	0.0	22.1	0.6	0.6	78.9	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.0	0.2	0.0	0.0	1.6	3.6	3.8	0.1	5.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	0.0	30.7	19.9	0.0	0.0	53.0	10.9	10.8	112.0	14.6	9.0
LnGrp LOS	C	A	C	B	A	A	D	B	B	F	B	A
Approach Vol, veh/h		495			13			1162			1261	
Approach Delay, s/veh		27.6			19.9			13.6			14.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	21.4	8.2	36.7	21.4	4.6	40.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	5.0	78.0	23.5	10.5	72.5
Max Q Clear Time (g_c+I1), s	15.1	4.9	21.7	15.2	2.0	16.2
Green Ext Time (p_c), s	1.8	0.0	10.5	0.0	0.0	7.3

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	243	245	86	164	193	169	700	65	262	838	99
Future Volume (veh/h)	101	243	245	86	164	193	169	700	65	262	838	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	107	259	261	91	174	205	180	745	69	279	891	105
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	129	1160	517	112	1125	502	197	853	380	303	1064	474
Arrive On Green	0.08	0.35	0.35	0.07	0.34	0.34	0.12	0.26	0.26	0.18	0.32	0.32
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	107	259	261	91	174	205	180	745	69	279	891	105
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	7.8	6.7	17.1	6.6	4.5	13.0	13.1	26.3	4.4	20.2	30.5	6.4
Cycle Q Clear(g_c), s	7.8	6.7	17.1	6.6	4.5	13.0	13.1	26.3	4.4	20.2	30.5	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	1160	517	112	1125	502	197	853	380	303	1064	474
V/C Ratio(X)	0.83	0.22	0.50	0.81	0.15	0.41	0.91	0.87	0.18	0.92	0.84	0.22
Avail Cap(c_a), veh/h	136	1160	517	141	1125	502	197	1003	448	319	1247	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	28.2	31.6	56.5	28.4	31.2	53.5	43.7	35.6	49.4	38.8	30.6
Incr Delay (d2), s/veh	31.6	0.4	3.5	23.9	0.3	2.5	40.7	7.7	0.2	30.1	4.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.7	6.3	3.4	1.8	4.8	7.5	11.3	1.6	10.5	12.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.5	28.7	35.1	80.4	28.7	33.6	94.2	51.4	35.8	79.4	43.3	30.8
LnGrp LOS	F	C	D	F	C	C	F	D	D	E	D	C
Approach Vol, veh/h		627			470			994			1275	
Approach Delay, s/veh		41.4			40.8			58.1			50.2	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.3	19.0	43.7	14.0	46.0	26.8	35.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	41.1	14.5	46.0	10.0	41.5	23.5	37.0
Max Q Clear Time (g_c+I1), s	9.6	19.1	15.1	32.5	9.8	15.0	22.2	28.3
Green Ext Time (p_c), s	0.0	2.3	0.0	4.8	0.0	1.6	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	49.6
HCM 6th LOS	D

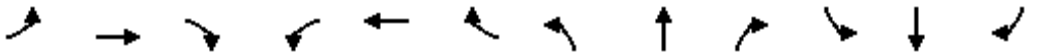
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Future Vol, veh/h	57	0	19	2	0	0	8	181	1	0	181	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	0	20	2	0	0	8	191	1	0	191	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	20	0	0	259	134	10	230	144	0
Stage 1	-	-	-	-	-	-	130	130	-	4	4	-
Stage 2	-	-	-	-	-	-	129	4	-	226	140	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	-	-	-	1570	-	-	686	749	1060	717	740	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	885	-
Stage 2	-	-	-	-	-	-	865	885	-	768	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1570	-	-	-	748	1060	575	739	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	748	-	575	739	-
Stage 1	-	-	-	-	-	-	864	781	-	1008	884	-
Stage 2	-	-	-	-	-	-	678	884	-	580	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1570	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	-	-	-	7.3	0	-	-
HCM Lane LOS	-	-	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	610	81	43	384	129	78	62	42	117	65	134
Future Volume (veh/h)	100	610	81	43	384	129	78	62	42	117	65	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	105	642	85	45	404	136	82	65	44	123	68	141
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	149	1085	484	85	957	427	281	206	107	259	127	193
Arrive On Green	0.09	0.32	0.32	0.05	0.28	0.28	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	511	696	361	454	428	651
Grp Volume(v), veh/h	105	642	85	45	404	136	191	0	0	332	0	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1568	0	0	1534	0	0
Q Serve(g_s), s	2.4	6.2	1.6	1.0	3.8	2.8	0.0	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	2.4	6.2	1.6	1.0	3.8	2.8	3.5	0.0	0.0	7.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.43		0.23	0.37		0.42
Lane Grp Cap(c), veh/h	149	1085	484	85	957	427	593	0	0	578	0	0
V/C Ratio(X)	0.71	0.59	0.18	0.53	0.42	0.32	0.32	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	1172	3419	1525	1172	3419	1525	1586	0	0	1611	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	11.5	9.9	18.4	11.7	11.4	11.1	0.0	0.0	12.3	0.0	0.0
Incr Delay (d2), s/veh	6.0	0.5	0.2	5.0	0.3	0.4	0.3	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.5	0.3	0.4	0.9	0.6	1.1	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	12.0	10.0	23.5	12.0	11.8	11.4	0.0	0.0	13.3	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		832			585			191			332	
Approach Delay, s/veh		13.2			12.9			11.4			13.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	17.0		16.3	7.9	15.6		16.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	3.0	8.2		9.4	4.4	5.8		5.5				
Green Ext Time (p_c), s	0.1	4.3		2.3	0.2	2.8		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		12.9	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	421	40	56	276	60	40	90	121	179	157	103
Future Volume (veh/h)	63	421	40	56	276	60	40	90	121	179	157	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	82	547	52	73	358	78	52	117	157	232	204	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	149	720	68	144	770	344	134	295	360	304	238	151
Arrive On Green	0.09	0.23	0.23	0.09	0.23	0.23	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1682	3098	294	1682	3357	1497	184	583	713	503	470	299
Grp Volume(v), veh/h	82	296	303	73	358	78	326	0	0	570	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1714	1682	1678	1497	1480	0	0	1272	0	0
Q Serve(g_s), s	4.8	16.7	16.8	4.2	9.4	4.3	0.0	0.0	0.0	28.7	0.0	0.0
Cycle Q Clear(g_c), s	4.8	16.7	16.8	4.2	9.4	4.3	13.0	0.0	0.0	41.8	0.0	0.0
Prop In Lane	1.00		0.17	1.00		1.00	0.16		0.48	0.41		0.24
Lane Grp Cap(c), veh/h	149	390	398	144	770	344	789	0	0	693	0	0
V/C Ratio(X)	0.55	0.76	0.76	0.51	0.46	0.23	0.41	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	178	486	496	190	995	444	925	0	0	817	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.5	36.4	36.5	44.5	33.8	31.9	15.6	0.0	0.0	23.5	0.0	0.0
Incr Delay (d2), s/veh	3.2	11.0	10.9	2.7	1.6	1.2	1.3	0.0	0.0	9.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	7.5	7.7	1.8	3.7	1.6	4.6	0.0	0.0	13.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	47.4	47.4	47.2	35.4	33.1	16.9	0.0	0.0	32.9	0.0	0.0
LnGrp LOS	D	D	D	D	D	C	B	A	A	C	A	A
Approach Vol, veh/h		681			509			326			570	
Approach Delay, s/veh		47.4			36.8			16.9			32.9	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	30.7		58.5	13.0	30.4		58.5				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	6.2	18.8		15.0	6.8	11.4		43.8				
Green Ext Time (p_c), s	0.1	4.9		5.9	0.0	5.0		7.7				

Intersection Summary	
HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2	0	-	0	2	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1634	-	-	-	1026	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1634	-	-	-	1026	1088
Mov Cap-2 Maneuver	-	-	-	-	1026	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1634	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	780	2	8	544	6	7	0	10	3	0	0
Future Vol, veh/h	0	780	2	8	544	6	7	0	10	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	821	2	8	573	6	7	0	11	3	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	579	0	0	823	0	0	1125	1417	412	1003	1415	290
Stage 1	-	-	-	-	-	-	822	822	-	592	592	-
Stage 2	-	-	-	-	-	-	303	595	-	411	823	-
Critical Hdwy	4.28	-	-	4.28	-	-	7.68	6.68	7.08	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.68	-	6.68	5.68	-
Follow-up Hdwy	2.29	-	-	2.29	-	-	3.59	4.09	3.39	3.59	4.09	3.39
Pot Cap-1 Maneuver	944	-	-	759	-	-	151	128	570	187	128	686
Stage 1	-	-	-	-	-	-	320	370	-	443	475	-
Stage 2	-	-	-	-	-	-	662	474	-	570	370	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	944	-	-	759	-	-	150	127	570	182	127	686
Mov Cap-2 Maneuver	-	-	-	-	-	-	150	127	-	182	127	-
Stage 1	-	-	-	-	-	-	320	370	-	443	470	-
Stage 2	-	-	-	-	-	-	655	469	-	559	370	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19.6	25.1
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	944	-	-	759	-	-	182
HCM Lane V/C Ratio	0.068	-	-	-	0.011	-	-	0.017
HCM Control Delay (s)	19.6	0	-	-	9.8	-	-	25.1
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	173	31	21	30	20	16	90	57	20	40	7
Future Vol, veh/h	9	173	31	21	30	20	16	90	57	20	40	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	228	41	28	39	26	21	118	75	26	53	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.6	8.8	9.8	9
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	4%	30%	30%
Vol Thru, %	55%	81%	42%	60%
Vol Right, %	35%	15%	28%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	163	213	71	67
LT Vol	16	9	21	20
Through Vol	90	173	30	40
RT Vol	57	31	20	7
Lane Flow Rate	214	280	93	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.286	0.369	0.128	0.126
Departure Headway (Hd)	4.793	4.746	4.95	5.145
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	754	717	691
Service Time	2.856	2.806	3.027	3.22
HCM Lane V/C Ratio	0.288	0.371	0.13	0.127
HCM Control Delay	9.8	10.6	8.8	9
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	1.2	1.7	0.4	0.4

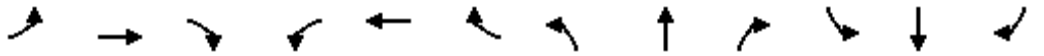
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	187	0	0	141	0
Future Vol, veh/h	0	0	0	0	0	0	0	187	0	0	141	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	0	0	0	0	0	208	0	0	157	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	365	365	157	365	365	208	157	0	0	208	0	0
Stage 1	157	157	-	208	208	-	-	-	-	-	-	-
Stage 2	208	208	-	157	157	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	578	552	870	578	552	815	1381	-	-	1322	-	-
Stage 1	829	755	-	778	717	-	-	-	-	-	-	-
Stage 2	778	717	-	829	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	578	552	870	578	552	815	1381	-	-	1322	-	-
Mov Cap-2 Maneuver	578	552	-	578	552	-	-	-	-	-	-	-
Stage 1	829	755	-	778	717	-	-	-	-	-	-	-
Stage 2	778	717	-	829	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1381	-	-	-	-	1322	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	589	151	171	385	210	146	356	176	126	186	48
Future Volume (veh/h)	95	589	151	171	385	210	146	356	176	126	186	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	104	647	166	188	423	231	160	391	193	138	204	53
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	957	427	238	1161	518	207	680	303	181	330	280
Arrive On Green	0.08	0.27	0.27	0.13	0.33	0.33	0.12	0.19	0.19	0.10	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	1856	1572
Grp Volume(v), veh/h	104	647	166	188	423	231	160	391	193	138	204	53
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1856	1572
Q Serve(g_s), s	3.5	9.9	5.2	6.2	5.5	7.0	5.3	6.1	6.8	4.6	6.1	1.7
Cycle Q Clear(g_c), s	3.5	9.9	5.2	6.2	5.5	7.0	5.3	6.1	6.8	4.6	6.1	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	957	427	238	1161	518	207	680	303	181	330	280
V/C Ratio(X)	0.77	0.68	0.39	0.79	0.36	0.45	0.77	0.57	0.64	0.76	0.62	0.19
Avail Cap(c_a), veh/h	455	2253	1005	455	2253	1005	572	1668	744	572	878	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	19.6	17.9	25.3	15.4	15.9	25.8	22.1	22.4	26.3	22.9	21.1
Incr Delay (d2), s/veh	8.6	0.8	0.6	5.8	0.2	0.6	6.0	0.8	2.2	6.6	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.3	1.7	2.6	1.8	2.2	2.3	2.3	2.4	2.0	2.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	20.4	18.4	31.1	15.6	16.5	31.8	22.8	24.6	32.9	24.8	21.4
LnGrp LOS	D	C	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		917			842			744			395	
Approach Delay, s/veh		21.8			19.3			25.2			27.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	20.9	11.6	15.2	9.1	24.3	10.7	16.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	8.2	11.9	7.3	8.1	5.5	9.0	6.6	8.8
Green Ext Time (p_c), s	0.3	4.5	0.3	1.1	0.1	3.2	0.3	2.8

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	122
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	53	110	71	6	87	67	552	105	72	487	12
Future Vol, veh/h	96	53	110	71	6	87	67	552	105	72	487	12
Peak Hour Factor	0.75	0.75	0.75	0.64	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	128	71	147	111	8	116	89	736	140	96	649	16
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	116.9	23.8	156.5	111
HCM LOS	F	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	37%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	64%	20%	0%	6%	0%	100%	93%
Vol Right, %	0%	0%	36%	42%	0%	94%	0%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	368	289	259	71	93	72	325	174
LT Vol	67	0	0	96	71	0	72	0	0
Through Vol	0	368	184	53	0	6	0	325	162
RT Vol	0	0	105	110	0	87	0	0	12
Lane Flow Rate	89	491	385	345	111	124	96	433	232
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.266	1.394	1.067	1.094	0.386	0.392	0.293	1.261	0.674
Departure Headway (Hd)	11.625	11.093	10.822	12.326	13.723	12.5	11.917	11.385	11.334
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	311	334	339	297	264	290	303	325	321
Service Time	9.325	8.793	8.522	10.026	11.423	10.2	9.617	9.085	9.034
HCM Lane V/C Ratio	0.286	1.47	1.136	1.162	0.42	0.428	0.317	1.332	0.723
HCM Control Delay	18.5	224.2	102.2	116.9	24.8	23	19.5	172.4	34.6
HCM Lane LOS	C	F	F	F	C	C	C	F	D
HCM 95th-tile Q	1	23.3	13	12.8	1.7	1.8	1.2	18.4	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	54	292	125	39	3	102	576	255	16	597	61
Future Volume (veh/h)	119	54	292	125	39	3	102	576	255	16	597	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	142	64	348	149	46	4	121	686	304	19	711	73
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	183	486	412	187	491	416	155	1211	540	39	978	436
Arrive On Green	0.10	0.26	0.26	0.11	0.27	0.27	0.09	0.35	0.35	0.02	0.28	0.28
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	142	64	348	149	46	4	121	686	304	19	711	73
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	5.4	1.8	14.6	5.7	1.3	0.1	4.7	11.0	10.9	0.7	12.7	2.4
Cycle Q Clear(g_c), s	5.4	1.8	14.6	5.7	1.3	0.1	4.7	11.0	10.9	0.7	12.7	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	486	412	187	491	416	155	1211	540	39	978	436
V/C Ratio(X)	0.78	0.13	0.85	0.80	0.09	0.01	0.78	0.57	0.56	0.49	0.73	0.17
Avail Cap(c_a), veh/h	445	1174	995	267	987	836	318	2154	961	127	1774	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	19.4	24.1	30.1	19.0	18.6	30.8	18.3	18.3	33.4	22.5	18.8
Incr Delay (d2), s/veh	7.0	0.1	4.8	10.4	0.1	0.0	8.1	0.4	0.9	9.3	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.8	5.4	2.9	0.5	0.0	2.2	4.0	3.6	0.4	4.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	19.5	28.9	40.4	19.1	18.6	38.9	18.8	19.2	42.6	23.5	19.0
LnGrp LOS	D	B	C	D	B	B	D	B	B	D	C	B
Approach Vol, veh/h		554			199			1111			803	
Approach Delay, s/veh		29.9			35.1			21.1			23.5	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	22.7	10.6	23.8	11.7	22.9	6.0	28.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	7.7	16.6	6.7	14.7	7.4	3.3	2.7	13.0
Green Ext Time (p_c), s	0.1	1.6	0.1	4.6	0.2	0.2	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	430	246	48	228	101	111	501	83	122	685	88
Future Volume (veh/h)	152	430	246	48	228	101	111	501	83	122	685	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	177	500	286	56	265	117	129	583	97	142	797	102
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	209	826	471	71	1071	478	158	990	441	173	1020	455
Arrive On Green	0.12	0.39	0.39	0.04	0.31	0.31	0.09	0.29	0.29	0.10	0.29	0.29
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	177	407	379	56	265	117	129	583	97	142	797	102
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	9.6	18.1	18.2	3.1	5.5	5.5	7.0	14.0	4.6	7.7	20.4	4.8
Cycle Q Clear(g_c), s	9.6	18.1	18.2	3.1	5.5	5.5	7.0	14.0	4.6	7.7	20.4	4.8
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	673	624	71	1071	478	158	990	441	173	1020	455
V/C Ratio(X)	0.85	0.60	0.61	0.79	0.25	0.24	0.82	0.59	0.22	0.82	0.78	0.22
Avail Cap(c_a), veh/h	243	673	624	90	1071	478	180	1651	736	243	1777	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	23.7	23.7	45.9	25.0	25.0	43.1	29.7	26.3	42.7	31.3	25.8
Incr Delay (d2), s/veh	21.0	4.0	4.4	29.3	0.6	1.2	22.2	0.6	0.2	14.0	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	7.4	6.9	1.8	2.2	2.1	3.9	5.6	1.7	3.9	8.3	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.7	27.7	28.0	75.2	25.6	26.2	65.3	30.2	26.6	56.7	32.6	26.0
LnGrp LOS	E	C	C	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		963			438			809			1041	
Approach Delay, s/veh		34.2			32.1			35.4			35.3	
Approach LOS		C			C			D			D	

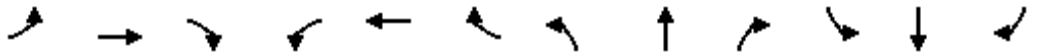
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	42.0	13.3	32.9	16.1	34.3	14.1	32.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.5	10.0	49.5	13.5	29.0	13.5	46.0
Max Q Clear Time (g_c+I1), s	11.1	20.2	9.0	22.4	11.6	7.5	9.7	16.0
Green Ext Time (p_c), s	0.0	4.0	0.0	6.1	0.1	1.7	0.1	4.3

Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	73	79	700	150	77	888
Future Volume (veh/h)	73	79	700	150	77	888
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	81	88	778	167	86	987
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1722	370	110	2453
Arrive On Green	0.23	0.23	0.60	0.60	0.06	0.70
Sat Flow, veh/h	1767	1572	2980	620	1767	3618
Grp Volume(v), veh/h	81	88	475	470	86	987
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1744	1767	1763
Q Serve(g_s), s	4.4	5.5	17.9	17.9	5.8	14.2
Cycle Q Clear(g_c), s	4.4	5.5	17.9	17.9	5.8	14.2
Prop In Lane	1.00	1.00		0.36	1.00	
Lane Grp Cap(c), veh/h	405	360	1051	1040	110	2453
V/C Ratio(X)	0.20	0.24	0.45	0.45	0.79	0.40
Avail Cap(c_a), veh/h	405	360	1051	1040	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	37.8	13.4	13.4	55.5	7.7
Incr Delay (d2), s/veh	1.1	1.6	1.4	1.4	11.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.4	7.0	6.9	2.9	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.5	39.4	14.8	14.8	67.1	8.2
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	169		945			1073
Approach Delay, s/veh	38.9		14.8			12.9
Approach LOS	D		B			B

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		88.0		32.0	11.9	76.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		83.5		27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s		16.2		7.5	7.8	19.9
Green Ext Time (p_c), s		8.0		0.4	0.1	6.8

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	899	47	76	981	101	38	39	145	74	25	15
Future Volume (veh/h)	23	899	47	76	981	101	38	39	145	74	25	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	25	988	52	84	1078	110	42	42	159	80	27	16
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	51	1391	73	111	1430	146	74	57	216	109	205	122
Arrive On Green	0.03	0.41	0.41	0.06	0.44	0.44	0.04	0.17	0.17	0.06	0.19	0.19
Sat Flow, veh/h	1781	3407	179	1767	3230	329	1767	342	1295	1781	1101	652
Grp Volume(v), veh/h	25	511	529	84	588	600	42	0	201	80	0	43
Grp Sat Flow(s),veh/h/ln	1781	1763	1823	1767	1763	1796	1767	0	1637	1781	0	1753
Q Serve(g_s), s	0.8	14.5	14.5	2.8	16.7	16.7	1.4	0.0	7.0	2.6	0.0	1.2
Cycle Q Clear(g_c), s	0.8	14.5	14.5	2.8	16.7	16.7	1.4	0.0	7.0	2.6	0.0	1.2
Prop In Lane	1.00		0.10	1.00		0.18	1.00		0.79	1.00		0.37
Lane Grp Cap(c), veh/h	51	720	744	111	780	795	74	0	273	109	0	327
V/C Ratio(X)	0.49	0.71	0.71	0.76	0.75	0.75	0.57	0.00	0.74	0.73	0.00	0.13
Avail Cap(c_a), veh/h	538	1634	1690	304	1404	1431	534	0	749	262	0	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.7	14.8	14.8	27.6	14.0	14.0	28.1	0.0	23.7	27.6	0.0	20.3
Incr Delay (d2), s/veh	7.3	1.3	1.3	10.0	1.5	1.5	6.6	0.0	3.8	9.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.5	4.6	1.3	5.0	5.1	0.7	0.0	2.8	1.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	16.1	16.0	37.6	15.5	15.5	34.8	0.0	27.5	36.6	0.0	20.5
LnGrp LOS	D	B	B	D	B	B	C	A	C	D	A	C
Approach Vol, veh/h		1065			1272			243			123	
Approach Delay, s/veh		16.5			16.9			28.8			31.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	28.9	7.0	15.7	6.2	31.0	8.2	14.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.3	55.5	18.1	18.1	18.1	47.7	8.8	27.4
Max Q Clear Time (g_c+I1), s	4.8	16.5	3.4	3.2	2.8	18.7	4.6	9.0
Green Ext Time (p_c), s	0.1	6.7	0.1	0.1	0.0	7.8	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	15.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	194	8	121	137	45	5	111	217	24	62	10
Future Vol, veh/h	26	194	8	121	137	45	5	111	217	24	62	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	30	223	9	139	157	52	6	128	249	28	71	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	209	0	0	232	0	0	790	775	228	937	753	183
Stage 1	-	-	-	-	-	-	288	288	-	461	461	-
Stage 2	-	-	-	-	-	-	502	487	-	476	292	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1368	-	-	1342	-	-	309	330	814	246	340	862
Stage 1	-	-	-	-	-	-	722	675	-	582	567	-
Stage 2	-	-	-	-	-	-	553	552	-	572	673	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1368	-	-	1342	-	-	226	289	814	102	298	862
Mov Cap-2 Maneuver	-	-	-	-	-	-	226	289	-	102	298	-
Stage 1	-	-	-	-	-	-	706	660	-	569	508	-
Stage 2	-	-	-	-	-	-	420	495	-	313	658	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	3.2	30.3	39.4
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	504	1368	-	-	1342	-	-	211
HCM Lane V/C Ratio	0.025	0.748	0.022	-	-	0.104	-	-	0.523
HCM Control Delay (s)	21.3	30.4	7.7	-	-	8	-	-	39.4
HCM Lane LOS	C	D	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.1	6.4	0.1	-	-	0.3	-	-	2.7

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	147	103	94	87	1	60	0	69	0	1	1
Future Vol, veh/h	0	147	103	94	87	1	60	0	69	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	165	116	106	98	1	67	0	78	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	99	0	0	281	0	0	535	534	223	573	592	99
Stage 1	-	-	-	-	-	-	223	223	-	311	311	-
Stage 2	-	-	-	-	-	-	312	311	-	262	281	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1500	-	-	1287	-	-	458	454	819	432	420	960
Stage 1	-	-	-	-	-	-	782	721	-	702	660	-
Stage 2	-	-	-	-	-	-	701	660	-	745	680	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1500	-	-	1287	-	-	426	415	819	365	383	960
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	415	-	365	383	-
Stage 1	-	-	-	-	-	-	782	721	-	702	603	-
Stage 2	-	-	-	-	-	-	638	603	-	674	680	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.2	13.4	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	1500	-	-	1287	-	-	548
HCM Lane V/C Ratio	0.253	-	-	-	0.082	-	-	0.004
HCM Control Delay (s)	13.4	0	-	-	8	0	-	11.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0	-	-	0.3	-	-	0

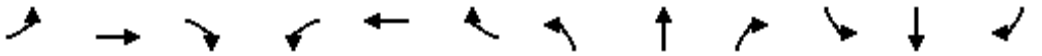
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	17	0	0	0	159	0	0	141	0
Future Vol, veh/h	0	0	0	17	0	0	0	159	0	0	141	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	18	0	0	0	171	0	0	152	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	323	323	152	323	323	171	152	0	0	171	0	0
Stage 1	152	152	-	171	171	-	-	-	-	-	-	-
Stage 2	171	171	-	152	152	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	634	598	900	634	598	878	1441	-	-	1418	-	-
Stage 1	855	775	-	836	761	-	-	-	-	-	-	-
Stage 2	836	761	-	855	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	634	598	900	634	598	878	1441	-	-	1418	-	-
Mov Cap-2 Maneuver	634	598	-	634	598	-	-	-	-	-	-	-
Stage 1	855	775	-	836	761	-	-	-	-	-	-	-
Stage 2	836	761	-	855	775	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.8	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1441	-	-	-	634	1418	-	-
HCM Lane V/C Ratio	-	-	-	-	0.029	-	-	-
HCM Control Delay (s)	0	-	-	0	10.8	0	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	686	344	112	612	144	465	283	200	188	191	100
Future Volume (veh/h)	69	686	344	112	612	144	465	283	200	188	191	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	746	374	122	665	157	505	308	217	204	208	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	920	779	152	978	829	116	372	315	87	648	289
Arrive On Green	0.05	0.49	0.49	0.09	0.52	0.52	0.07	0.20	0.20	0.05	0.18	0.18
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	75	746	374	122	665	157	505	308	217	204	208	109
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	4.3	34.6	16.1	6.9	27.0	5.4	6.7	16.2	13.0	5.0	5.2	6.2
Cycle Q Clear(g_c), s	4.3	34.6	16.1	6.9	27.0	5.4	6.7	16.2	13.0	5.0	5.2	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	920	779	152	978	829	116	372	315	87	648	289
V/C Ratio(X)	0.78	0.81	0.48	0.80	0.68	0.19	4.34	0.83	0.69	2.35	0.32	0.38
Avail Cap(c_a), veh/h	115	920	779	265	978	829	116	669	567	87	1212	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	22.1	17.4	46.1	18.1	13.0	48.0	39.4	38.2	48.8	36.4	36.8
Incr Delay (d2), s/veh	24.6	7.7	2.1	9.4	3.8	0.5	1524.4	4.7	2.7	642.2	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	15.0	5.8	3.3	10.9	1.9	52.1	7.6	5.1	17.6	2.2	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	29.8	19.5	55.5	21.9	13.5	1572.4	44.2	40.8	691.0	36.7	37.7
LnGrp LOS	E	C	B	E	C	B	F	D	D	F	D	D
Approach Vol, veh/h		1195			944			1030			521	
Approach Delay, s/veh		29.2			24.9			792.8			293.1	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	55.0	11.2	23.2	10.0	58.2	9.5	24.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	8.9	36.6	8.7	8.2	6.3	29.0	7.0	18.2
Green Ext Time (p_c), s	0.1	3.7	0.0	1.5	0.0	4.5	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	278.5
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	171	144	108	135	40	216	563	252	39	349	36
Future Volume (veh/h)	38	171	144	108	135	40	216	563	252	39	349	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	182	153	115	144	43	230	599	268	41	371	38
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	317	267	142	534	159	262	737	624	57	908	92
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.28	0.28
Sat Flow, veh/h	1781	939	789	1781	1383	413	1781	1870	1585	1781	3256	332
Grp Volume(v), veh/h	40	0	335	115	0	187	230	599	268	41	201	208
Grp Sat Flow(s),veh/h/ln	1781	0	1728	1781	0	1796	1781	1870	1585	1781	1777	1811
Q Serve(g_s), s	2.6	0.0	18.3	7.3	0.0	8.2	14.5	32.8	14.2	2.6	10.6	10.7
Cycle Q Clear(g_c), s	2.6	0.0	18.3	7.3	0.0	8.2	14.5	32.8	14.2	2.6	10.6	10.7
Prop In Lane	1.00		0.46	1.00		0.23	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	56	0	584	142	0	693	262	737	624	57	495	505
V/C Ratio(X)	0.72	0.00	0.57	0.81	0.00	0.27	0.88	0.81	0.43	0.72	0.41	0.41
Avail Cap(c_a), veh/h	95	0	584	210	0	693	365	737	624	98	495	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	31.2	52.0	0.0	24.1	48.0	31.0	25.4	55.1	33.7	33.7
Incr Delay (d2), s/veh	15.6	0.0	4.1	13.7	0.0	1.0	16.2	9.5	2.2	16.0	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	7.9	3.7	0.0	3.5	7.4	15.8	5.4	1.4	4.7	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.6	0.0	35.3	65.7	0.0	25.1	64.2	40.6	27.5	71.0	36.1	36.2
LnGrp LOS	E	A	D	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		375			302			1097			450	
Approach Delay, s/veh		39.0			40.5			42.3			39.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.3	21.4	36.5	8.1	48.8	8.1	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.3	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	20.3	16.5	12.7	4.6	10.2	4.6	34.8
Green Ext Time (p_c), s	0.1	1.7	0.3	1.8	0.0	1.0	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	416	78	111	233	242	187	865	149	233	466	72
Future Volume (veh/h)	135	416	78	111	233	242	187	865	149	233	466	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	424	80	113	238	247	191	883	152	238	476	73
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	1159	517	140	1107	494	222	1045	466	271	1142	509
Arrive On Green	0.09	0.33	0.33	0.08	0.31	0.31	0.12	0.29	0.29	0.15	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	138	424	80	113	238	247	191	883	152	238	476	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.2	11.0	4.3	7.5	6.0	15.3	12.7	28.1	9.0	15.7	12.6	3.9
Cycle Q Clear(g_c), s	9.2	11.0	4.3	7.5	6.0	15.3	12.7	28.1	9.0	15.7	12.6	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	1159	517	140	1107	494	222	1045	466	271	1142	509
V/C Ratio(X)	0.83	0.37	0.15	0.81	0.22	0.50	0.86	0.84	0.33	0.88	0.42	0.14
Avail Cap(c_a), veh/h	259	1159	517	262	1107	494	385	1313	586	481	1505	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	31.0	28.8	54.6	30.6	33.8	51.7	39.9	33.2	50.0	32.0	29.1
Incr Delay (d2), s/veh	12.4	0.9	0.6	10.6	0.4	3.6	9.4	4.3	0.4	9.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.6	1.7	3.6	2.5	6.2	6.1	12.4	3.4	7.5	5.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	31.9	29.4	65.2	31.0	37.4	61.1	44.2	33.6	59.0	32.3	29.2
LnGrp LOS	E	C	C	E	C	D	E	D	C	E	C	C
Approach Vol, veh/h		642			598			1226			787	
Approach Delay, s/veh		39.0			40.1			45.5			40.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	43.8	19.5	43.2	15.7	42.0	22.8	39.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	37.3	26.0	51.0	17.5	37.5	32.5	44.5
Max Q Clear Time (g_c+I1), s	9.5	13.0	14.7	14.6	11.2	17.3	17.7	30.1
Green Ext Time (p_c), s	0.1	2.6	0.4	3.3	0.2	2.0	0.5	5.3

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

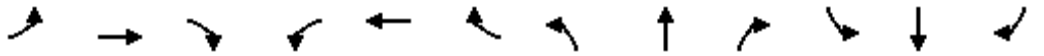
Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	10	148	39	9	110
Future Vol, veh/h	31	10	148	39	9	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	34	11	164	43	10	122

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	328	186	0	0	207	0
Stage 1	186	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	652	838	-	-	1323	-
Stage 1	829	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	647	838	-	-	1323	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	685	1323	-
HCM Lane V/C Ratio	-	-	0.067	0.008	-
HCM Control Delay (s)	-	-	10.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	913	12	33	768	0	7	0	71	0	0	0
Future Volume (veh/h)	39	913	12	33	768	0	7	0	71	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1678	1678	1678	1678	1678	0	1678	1678	1678			
Adj Flow Rate, veh/h	41	971	13	35	817	0	7	0	76			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	15	15	15	15	15	0	15	15	15			
Cap, veh/h	414	1991	27	48	2195	0	28	0	302			
Arrive On Green	0.62	0.62	0.62	0.03	0.69	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	600	3221	43	1598	3272	0	121	0	1314			
Grp Volume(v), veh/h	41	481	503	35	817	0	83	0	0			
Grp Sat Flow(s),veh/h/ln	600	1594	1670	1598	1594	0	1435	0	0			
Q Serve(g_s), s	3.4	18.3	18.3	2.4	11.9	0.0	5.2	0.0	0.0			
Cycle Q Clear(g_c), s	7.5	18.3	18.3	2.4	11.9	0.0	5.2	0.0	0.0			
Prop In Lane	1.00		0.03	1.00		0.00	0.08		0.92			
Lane Grp Cap(c), veh/h	414	985	1032	48	2195	0	330	0	0			
V/C Ratio(X)	0.10	0.49	0.49	0.74	0.37	0.00	0.25	0.00	0.00			
Avail Cap(c_a), veh/h	414	985	1032	180	2460	0	330	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	10.4	11.6	11.6	53.3	7.2	0.0	34.8	0.0	0.0			
Incr Delay (d2), s/veh	0.5	1.7	1.6	19.6	0.1	0.0	1.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.4	5.8	6.1	1.2	3.1	0.0	2.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9	13.3	13.2	72.9	7.3	0.0	36.7	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		1025			852			83				
Approach Delay, s/veh		13.2			10.0			36.7				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.8	73.0				80.8		30.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	12.5	68.5				85.5		25.5				
Max Q Clear Time (g_c+I1), s	4.4	20.3				13.9		7.2				
Green Ext Time (p_c), s	0.0	6.9				5.8		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			12.8									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	64	36	106	59	151	11	466	108	155	673	4
Future Volume (veh/h)	2	64	36	106	59	151	11	466	108	155	673	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	2	72	40	119	66	170	12	524	121	174	756	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	81	334	182	225	117	219	26	865	386	225	1288	7
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.02	0.26	0.26	0.13	0.38	0.38
Sat Flow, veh/h	6	1061	577	385	371	694	1668	3328	1485	1668	3395	18
Grp Volume(v), veh/h	114	0	0	355	0	0	12	524	121	174	371	389
Grp Sat Flow(s),veh/h/ln	1644	0	0	1450	0	0	1668	1664	1485	1668	1664	1749
Q Serve(g_s), s	0.0	0.0	0.0	7.4	0.0	0.0	0.3	6.4	3.1	4.7	8.3	8.3
Cycle Q Clear(g_c), s	2.4	0.0	0.0	10.2	0.0	0.0	0.3	6.4	3.1	4.7	8.3	8.3
Prop In Lane	0.02		0.35	0.34		0.48	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	597	0	0	560	0	0	26	865	386	225	631	663
V/C Ratio(X)	0.19	0.00	0.00	0.63	0.00	0.00	0.47	0.61	0.31	0.77	0.59	0.59
Avail Cap(c_a), veh/h	1432	0	0	1283	0	0	341	3469	1547	699	2092	2198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	0.0	14.3	0.0	0.0	22.7	15.1	13.9	19.4	11.5	11.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.2	0.0	0.0	12.5	0.7	0.5	5.6	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	3.0	0.0	0.0	0.2	1.8	0.8	1.7	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	0.0	0.0	15.5	0.0	0.0	35.2	15.8	14.3	25.0	12.4	12.4
LnGrp LOS	B	A	A	B	A	A	D	B	B	C	B	B
Approach Vol, veh/h		114			355			657			934	
Approach Delay, s/veh		11.9			15.5			15.9			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	19.2	5.2	22.2	19.2	10.8	16.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	38.5	9.5	58.5	38.5	19.5	48.5
Max Q Clear Time (g_c+I1), s	4.4	2.3	10.3	12.2	6.7	8.4
Green Ext Time (p_c), s	0.7	0.0	4.4	2.5	0.3	3.7

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	447	253	249	463	101	85	445	268	76	537	271
Future Volume (veh/h)	257	447	253	249	463	101	85	445	268	76	537	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	276	481	272	268	498	109	91	478	288	82	577	291
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	14	14	14	14	14	14	14	14	14	14	14
Cap, veh/h	311	795	355	303	780	348	115	1003	447	102	630	317
Arrive On Green	0.19	0.25	0.25	0.19	0.24	0.24	0.07	0.31	0.31	0.06	0.30	0.30
Sat Flow, veh/h	1612	3216	1434	1612	3216	1434	1612	3216	1434	1612	2070	1043
Grp Volume(v), veh/h	276	481	272	268	498	109	91	478	288	82	448	420
Grp Sat Flow(s),veh/h/ln	1612	1608	1434	1612	1608	1434	1612	1608	1434	1612	1608	1505
Q Serve(g_s), s	15.9	12.6	16.8	15.4	13.2	5.9	5.3	11.4	16.5	4.8	25.6	25.7
Cycle Q Clear(g_c), s	15.9	12.6	16.8	15.4	13.2	5.9	5.3	11.4	16.5	4.8	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	311	795	355	303	780	348	115	1003	447	102	490	458
V/C Ratio(X)	0.89	0.60	0.77	0.88	0.64	0.31	0.79	0.48	0.64	0.80	0.92	0.92
Avail Cap(c_a), veh/h	465	795	355	465	780	348	354	1340	598	198	515	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	31.7	33.3	37.7	32.4	29.6	43.6	26.5	28.2	44.0	32.0	32.0
Incr Delay (d2), s/veh	13.0	3.4	14.6	12.2	4.0	2.3	11.7	0.4	1.6	13.2	20.6	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	4.9	6.8	6.6	5.1	2.1	2.4	4.0	5.3	2.2	11.7	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	35.1	47.9	49.9	36.3	31.9	55.2	26.8	29.8	57.2	52.5	53.8
LnGrp LOS	D	D	D	D	D	C	E	C	C	E	D	D
Approach Vol, veh/h		1029			875			857			950	
Approach Delay, s/veh		42.6			39.9			30.8			53.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	28.1	11.3	33.5	22.9	27.6	10.6	34.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	23.1	20.9	30.5	27.5	23.1	11.7	39.7
Max Q Clear Time (g_c+I1), s	17.4	18.8	7.3	27.7	17.9	15.2	6.8	18.5
Green Ext Time (p_c), s	0.5	1.5	0.1	1.4	0.5	2.0	0.1	3.7

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	0	60	24	0	0	184	853	18	11	932	111
Future Volume (veh/h)	27	0	60	24	0	0	184	853	18	11	932	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	30	0	67	27	0	0	207	958	20	12	1047	125
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	43	1109	495	41	1104	492	218	1503	671	22	1113	496
Arrive On Green	0.03	0.00	0.34	0.03	0.00	0.00	0.13	0.46	0.46	0.01	0.34	0.34
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	30	0	67	27	0	0	207	958	20	12	1047	125
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	2.1	0.0	3.7	1.9	0.0	0.0	14.6	26.0	0.9	0.8	36.2	7.2
Cycle Q Clear(g_c), s	2.1	0.0	3.7	1.9	0.0	0.0	14.6	26.0	0.9	0.8	36.2	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	43	1109	495	41	1104	492	218	1503	671	22	1113	496
V/C Ratio(X)	0.69	0.00	0.14	0.66	0.00	0.00	0.95	0.64	0.03	0.53	0.94	0.25
Avail Cap(c_a), veh/h	106	1109	495	91	1104	492	218	1503	671	91	1137	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	0.0	26.2	55.8	0.0	0.0	49.6	23.6	16.9	56.6	36.8	27.3
Incr Delay (d2), s/veh	17.6	0.0	0.6	16.8	0.0	0.0	46.6	0.9	0.0	18.2	14.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.3	1.0	0.0	0.0	8.5	9.2	0.3	0.4	15.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	0.0	26.8	72.7	0.0	0.0	96.2	24.5	16.9	74.8	51.3	27.5
LnGrp LOS	E	A	C	E	A	A	F	C	B	E	D	C
Approach Vol, veh/h		97			27			1185			1184	
Approach Delay, s/veh		41.2			72.7			36.9			49.1	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	44.0	20.0	44.1	7.6	43.8	6.1	58.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	3.9	5.7	16.6	38.2	4.1	0.0	2.8	28.0
Green Ext Time (p_c), s	0.0	0.2	0.0	1.5	0.0	0.0	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	871	168
Future Volume (veh/h)	20	0	32	1	0	1	282	1058	20	6	871	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	23	0	37	1	0	1	328	1230	23	7	1013	195
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	307	0	163	171	29	80	183	1897	35	15	1555	693
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.11	0.58	0.58	0.01	0.48	0.48
Sat Flow, veh/h	1304	0	1459	454	260	714	1640	3286	61	1640	3272	1459
Grp Volume(v), veh/h	23	0	37	2	0	0	328	612	641	7	1013	195
Grp Sat Flow(s),veh/h/ln	1304	0	1459	1428	0	0	1640	1636	1711	1640	1636	1459
Q Serve(g_s), s	0.7	0.0	1.0	0.0	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Cycle Q Clear(g_c), s	0.7	0.0	1.0	0.1	0.0	0.0	5.0	11.3	11.3	0.2	10.5	3.6
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	163	280	0	0	183	945	988	15	1555	693
V/C Ratio(X)	0.07	0.00	0.23	0.01	0.00	0.00	1.79	0.65	0.65	0.46	0.65	0.28
Avail Cap(c_a), veh/h	787	0	701	779	0	0	183	2686	2809	421	5847	2608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	0.0	18.1	17.7	0.0	0.0	19.9	6.4	6.4	22.1	8.9	7.1
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.0	0.0	0.0	376.9	0.8	0.7	19.9	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	20.6	1.4	1.5	0.1	2.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	18.8	17.7	0.0	0.0	396.7	7.1	7.1	42.0	9.4	7.3
LnGrp LOS	B	A	B	B	A	A	F	A	A	D	A	A
Approach Vol, veh/h		60			2			1581			1215	
Approach Delay, s/veh		18.5			17.7			88.0			9.3	
Approach LOS		B			B			F			A	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.5	9.5	25.8	9.5	4.9	30.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	5.0	80.0	21.5	11.5	73.5
Max Q Clear Time (g_c+I1), s	3.0	7.0	12.5	2.1	2.2	13.3
Green Ext Time (p_c), s	0.2	0.0	8.7	0.0	0.0	9.4

Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	176	229	65	145	241	190	1041	73	193	658	56
Future Volume (veh/h)	103	176	229	65	145	241	190	1041	73	193	658	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	111	189	246	70	156	259	204	1119	78	208	708	60
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
Arrive On Green	0.07	0.33	0.33	0.05	0.31	0.31	0.14	0.34	0.34	0.13	0.34	0.34
Sat Flow, veh/h	1682	3357	1497	1682	3357	1497	1682	3357	1497	1682	3357	1497
Grp Volume(v), veh/h	111	189	246	70	156	259	204	1119	78	208	708	60
Grp Sat Flow(s),veh/h/ln	1682	1678	1497	1682	1678	1497	1682	1678	1497	1682	1678	1497
Q Serve(g_s), s	8.5	5.2	17.0	5.3	4.4	18.7	15.5	42.8	4.7	15.9	23.0	3.6
Cycle Q Clear(g_c), s	8.5	5.2	17.0	5.3	4.4	18.7	15.5	42.8	4.7	15.9	23.0	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	1121	500	88	1051	469	229	1149	512	224	1139	508
V/C Ratio(X)	0.90	0.17	0.49	0.80	0.15	0.55	0.89	0.97	0.15	0.93	0.62	0.12
Avail Cap(c_a), veh/h	123	1121	500	113	1051	469	274	1149	512	224	1139	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	30.5	34.5	60.9	32.2	37.1	55.2	42.2	29.7	55.7	35.9	29.5
Incr Delay (d2), s/veh	52.4	0.3	3.4	25.8	0.3	4.6	25.5	20.5	0.1	41.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.1	6.4	2.9	1.8	7.2	8.0	20.0	1.7	9.0	9.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.2	30.9	37.9	86.7	32.5	41.7	80.7	62.6	29.8	96.7	37.0	29.6
LnGrp LOS	F	C	D	F	C	D	F	E	C	F	D	C
Approach Vol, veh/h		546			485			1401			976	
Approach Delay, s/veh		50.6			45.2			63.4			49.3	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	47.9	22.2	48.6	14.0	45.2	21.8	49.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.7	41.5	21.2	40.6	9.5	40.7	17.3	44.5
Max Q Clear Time (g_c+I1), s	7.3	19.0	17.5	25.0	10.5	20.7	17.9	44.8
Green Ext Time (p_c), s	0.0	1.8	0.2	3.9	0.0	1.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

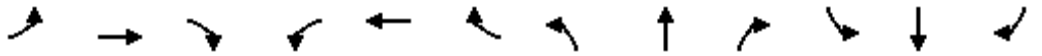
Intersection	
Int Delay, s/veh	11.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	5	23	23	2	10	23	176	7	5	184	56
Future Vol, veh/h	57	5	23	23	2	10	23	176	7	5	184	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	61	5	24	24	2	11	24	187	7	5	196	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	29	0	0	323	200	17	292	207	8
Stage 1	-	-	-	-	-	-	139	139	-	56	56	-
Stage 2	-	-	-	-	-	-	184	61	-	236	151	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1580	-	-	1559	-	-	622	689	1050	652	683	1062
Stage 1	-	-	-	-	-	-	855	774	-	946	840	-
Stage 2	-	-	-	-	-	-	809	836	-	758	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1559	-	-	432	652	1050	484	646	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	432	652	-	484	646	-
Stage 1	-	-	-	-	-	-	822	744	-	909	827	-
Stage 2	-	-	-	-	-	-	574	823	-	541	735	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.9	4.8	13.8	13.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	625	1580	-	-	1559	-	-	704
HCM Lane V/C Ratio	0.351	0.038	-	-	0.016	-	-	0.37
HCM Control Delay (s)	13.8	7.4	0	-	7.3	0	-	13.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.6	0.1	-	-	0	-	-	1.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	592	49	48	696	161	13	71	24	102	59	80
Future Volume (veh/h)	172	592	49	48	696	161	13	71	24	102	59	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	183	630	52	51	740	171	14	76	26	109	63	85
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	244	1537	686	93	1236	551	116	187	59	423	114	154
Arrive On Green	0.14	0.45	0.45	0.05	0.36	0.36	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	97	1150	360	1252	699	943
Grp Volume(v), veh/h	183	630	52	51	740	171	116	0	0	109	0	148
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1608	0	0	1252	0	1641
Q Serve(g_s), s	4.1	5.0	0.8	1.2	7.0	3.2	0.0	0.0	0.0	0.0	0.0	3.3
Cycle Q Clear(g_c), s	4.1	5.0	0.8	1.2	7.0	3.2	3.4	0.0	0.0	2.3	0.0	3.3
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.22	1.00		0.57
Lane Grp Cap(c), veh/h	244	1537	686	93	1236	551	363	0	0	423	0	268
V/C Ratio(X)	0.75	0.41	0.08	0.55	0.60	0.31	0.32	0.00	0.00	0.26	0.00	0.55
Avail Cap(c_a), veh/h	1160	3386	1510	1160	3386	1510	1733	0	0	1466	0	1636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	7.5	6.4	18.5	10.5	9.3	15.1	0.0	0.0	15.0	0.0	15.5
Incr Delay (d2), s/veh	4.6	0.2	0.0	4.9	0.5	0.3	0.5	0.0	0.0	0.3	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.9	0.1	0.5	1.6	0.7	0.8	0.0	0.0	0.8	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	7.7	6.4	23.4	11.0	9.6	15.6	0.0	0.0	15.3	0.0	17.2
LnGrp LOS	C	A	A	C	B	A	B	A	A	B	A	B
Approach Vol, veh/h		865			962			116			257	
Approach Delay, s/veh		10.5			11.4			15.6			16.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	22.4		11.0	10.2	18.9		11.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	3.2	7.0		5.3	6.1	9.0		5.4				
Green Ext Time (p_c), s	0.1	4.1		1.3	0.4	5.4		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		11.8	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	299	54	140	384	155	45	158	75	90	80	48
Future Volume (veh/h)	79	299	54	140	384	155	45	158	75	90	80	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	99	374	68	175	480	194	56	198	94	112	100	60
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	220	812	146	253	1025	457	117	302	131	209	175	86
Arrive On Green	0.13	0.28	0.28	0.15	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1711	2889	520	1711	3413	1522	180	1030	448	444	598	295
Grp Volume(v), veh/h	99	220	222	175	480	194	348	0	0	272	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1703	1711	1706	1522	1658	0	0	1336	0	0
Q Serve(g_s), s	3.5	6.9	7.0	6.3	7.4	6.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	6.9	7.0	6.3	7.4	6.6	11.8	0.0	0.0	11.7	0.0	0.0
Prop In Lane	1.00		0.31	1.00		1.00	0.16		0.27	0.41		0.22
Lane Grp Cap(c), veh/h	220	479	478	253	1025	457	550	0	0	470	0	0
V/C Ratio(X)	0.45	0.46	0.47	0.69	0.47	0.42	0.63	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	502	870	868	767	2267	1011	1065	0	0	907	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.1	19.2	19.2	26.2	18.4	18.2	20.3	0.0	0.0	19.9	0.0	0.0
Incr Delay (d2), s/veh	1.4	2.5	2.5	3.4	1.2	2.3	4.3	0.0	0.0	4.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	2.6	2.4	2.6	2.2	4.7	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	21.7	21.8	29.5	19.6	20.4	24.6	0.0	0.0	24.0	0.0	0.0
LnGrp LOS	C	C	C	C	B	C	C	A	A	C	A	A
Approach Vol, veh/h		541			849			348			272	
Approach Delay, s/veh		22.8			21.9			24.6			24.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	25.2		26.0	12.3	26.4		26.0				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	29.6	33.0		40.0	19.0	43.0		40.0				
Max Q Clear Time (g_c+I1), s	9.3	9.0		13.8	5.5	9.4		13.7				
Green Ext Time (p_c), s	0.4	5.7		5.2	0.2	10.0		4.1				

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

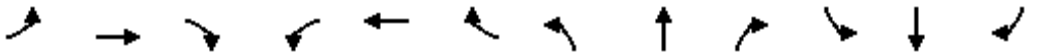
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	36	0	9	0
Future Vol, veh/h	0	16	36	0	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	31	31	31	31	31	31
Mvmt Flow	0	30	67	0	17	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	67	0	-	0	97	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.41	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.479	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1369	-	-	-	836	921
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	923	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1369	-	-	-	836	921
Mov Cap-2 Maneuver	-	-	-	-	836	-
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	923	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1369	-	-	-	836
HCM Lane V/C Ratio	-	-	-	-	0.02
HCM Control Delay (s)	0	-	-	-	9.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	441	8	9	817	237	9	11	9	84	4	72
Future Volume (veh/h)	188	441	8	9	817	237	9	11	9	84	4	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
Adj Flow Rate, veh/h	209	490	9	10	908	263	10	12	10	93	4	80
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	249	1674	31	19	1208	539	19	63	52	116	9	183
Arrive On Green	0.16	0.55	0.55	0.01	0.40	0.40	0.01	0.08	0.08	0.08	0.14	0.14
Sat Flow, veh/h	1514	3035	56	1514	3021	1347	1514	802	668	1514	65	1293
Grp Volume(v), veh/h	209	244	255	10	908	263	10	0	22	93	0	84
Grp Sat Flow(s),veh/h/ln	1514	1510	1580	1514	1510	1347	1514	0	1470	1514	0	1357
Q Serve(g_s), s	8.6	5.5	5.5	0.4	16.5	9.3	0.4	0.0	0.9	3.9	0.0	3.6
Cycle Q Clear(g_c), s	8.6	5.5	5.5	0.4	16.5	9.3	0.4	0.0	0.9	3.9	0.0	3.6
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.45	1.00		0.95
Lane Grp Cap(c), veh/h	249	833	872	19	1208	539	19	0	115	116	0	192
V/C Ratio(X)	0.84	0.29	0.29	0.52	0.75	0.49	0.52	0.00	0.19	0.81	0.00	0.44
Avail Cap(c_a), veh/h	367	1074	1123	367	2147	958	485	0	471	485	0	435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	7.7	7.7	31.4	16.5	14.3	31.4	0.0	27.6	29.1	0.0	25.1
Incr Delay (d2), s/veh	10.7	0.2	0.2	19.9	1.0	0.7	19.9	0.0	0.8	12.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.2	1.2	0.2	4.5	2.6	0.3	0.0	0.3	1.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	7.9	7.9	51.3	17.4	15.0	51.3	0.0	28.4	41.3	0.0	26.7
LnGrp LOS	D	A	A	D	B	B	D	A	C	D	A	C
Approach Vol, veh/h		708			1181			32			177	
Approach Delay, s/veh		16.3			17.2			35.6			34.4	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	39.8	5.3	13.6	15.0	30.1	9.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	45.5	20.5	20.5	15.5	45.5	20.5	20.5
Max Q Clear Time (g_c+I1), s	2.4	7.5	2.4	5.6	10.6	18.5	5.9	2.9
Green Ext Time (p_c), s	0.0	2.6	0.0	0.3	0.2	7.1	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	91	48	76	119	22	25	35	41	17	62	8
Future Vol, veh/h	5	91	48	76	119	22	25	35	41	17	62	8
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	7	126	67	106	165	31	35	49	57	24	86	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	11.7	9.8	9.8
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	3%	35%	20%
Vol Thru, %	35%	63%	55%	71%
Vol Right, %	41%	33%	10%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	144	217	87
LT Vol	25	5	76	17
Through Vol	35	91	119	62
RT Vol	41	48	22	8
Lane Flow Rate	140	200	301	121
Geometry Grp	1	1	1	1
Degree of Util (X)	0.208	0.279	0.417	0.186
Departure Headway (Hd)	5.342	5.022	5.083	5.549
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	720	711	649
Service Time	3.357	3.022	3.083	3.565
HCM Lane V/C Ratio	0.207	0.278	0.423	0.186
HCM Control Delay	9.8	10	11.7	9.8
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.8	1.1	2.1	0.7

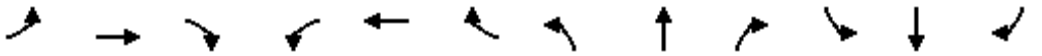
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	16	0	0	0	23	132	0	0	252	0
Future Vol, veh/h	6	0	16	0	0	0	23	132	0	0	252	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	9	0	25	0	0	0	35	203	0	0	388	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	661	661	388	674	661	203	388	0	0	203	0	0
Stage 1	388	388	-	273	273	-	-	-	-	-	-	-
Stage 2	273	273	-	401	388	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	368	375	647	360	375	823	1138	-	-	1334	-	-
Stage 1	624	599	-	720	673	-	-	-	-	-	-	-
Stage 2	720	673	-	614	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	358	362	647	337	362	823	1138	-	-	1334	-	-
Mov Cap-2 Maneuver	358	362	-	337	362	-	-	-	-	-	-	-
Stage 1	602	599	-	695	649	-	-	-	-	-	-	-
Stage 2	695	649	-	591	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	0	1.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1138	-	-	530	-	1334	-	-
HCM Lane V/C Ratio	0.031	-	-	0.064	-	-	-	-
HCM Control Delay (s)	8.3	0	-	12.3	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	321	182	123	695	106	382	291	68	92	249	55
Future Volume (veh/h)	82	321	182	123	695	106	382	291	68	92	249	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	91	357	202	137	772	118	424	323	76	102	277	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	118	917	409	174	1030	459	460	1091	486	133	437	195
Arrive On Green	0.07	0.26	0.26	0.10	0.30	0.30	0.26	0.31	0.31	0.08	0.13	0.13
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	91	357	202	137	772	118	424	323	76	102	277	61
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.8	6.2	8.1	5.7	14.8	4.3	17.4	5.2	2.6	4.2	5.6	2.6
Cycle Q Clear(g_c), s	3.8	6.2	8.1	5.7	14.8	4.3	17.4	5.2	2.6	4.2	5.6	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	917	409	174	1030	459	460	1091	486	133	437	195
V/C Ratio(X)	0.77	0.39	0.49	0.79	0.75	0.26	0.92	0.30	0.16	0.77	0.63	0.31
Avail Cap(c_a), veh/h	367	1817	811	367	1817	811	461	1345	600	461	1345	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	22.2	22.9	32.3	23.4	19.7	26.3	19.0	18.2	33.3	30.5	29.2
Incr Delay (d2), s/veh	10.2	0.3	0.9	7.7	1.1	0.3	24.0	0.1	0.1	9.0	1.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.2	2.8	2.5	5.3	1.4	9.5	1.9	0.9	2.0	2.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	22.4	23.8	40.0	24.5	20.0	50.3	19.2	18.3	42.3	32.0	30.1
LnGrp LOS	D	C	C	D	C	B	D	B	B	D	C	C
Approach Vol, veh/h		650			1027			823			440	
Approach Delay, s/veh		25.9			26.0			35.1			34.1	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	23.9	23.9	13.8	9.5	26.3	10.1	27.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	7.7	10.1	19.4	7.6	5.8	16.8	6.2	7.2
Green Ext Time (p_c), s	0.2	2.7	0.0	1.7	0.1	5.0	0.2	2.0

Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	84.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	4	42	143	30	137	68	598	76	92	492	39
Future Vol, veh/h	11	4	42	143	30	137	68	598	76	92	492	39
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	14	5	54	183	38	176	87	767	97	118	631	50
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	18.4	28.5	126.4	69.6
HCM LOS	C	D	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	19%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	72%	7%	0%	18%	0%	100%	81%
Vol Right, %	0%	0%	28%	74%	0%	82%	0%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	399	275	57	143	167	92	328	203
LT Vol	68	0	0	11	143	0	92	0	0
Through Vol	0	399	199	4	0	30	0	328	164
RT Vol	0	0	76	42	0	137	0	0	39
Lane Flow Rate	87	511	353	73	183	214	118	421	260
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.24	1.333	0.901	0.233	0.564	0.595	0.324	1.098	0.67
Departure Headway (Hd)	10.182	9.662	9.46	12.045	11.873	10.77	10.497	9.976	9.836
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	355	378	385	300	306	338	344	366	370
Service Time	7.882	7.362	7.16	9.745	9.573	8.47	8.197	7.676	7.536
HCM Lane V/C Ratio	0.245	1.352	0.917	0.243	0.598	0.633	0.343	1.15	0.703
HCM Control Delay	16.1	194.1	55.7	18.4	28.9	28.1	18.1	108.3	30.4
HCM Lane LOS	C	F	F	C	D	D	C	F	D
HCM 95th-tile Q	0.9	23.5	9.2	0.9	3.2	3.6	1.4	14.6	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	9	71	258	41	7	206	659	98	4	529	124
Future Volume (veh/h)	59	9	71	258	41	7	206	659	98	4	529	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	71	11	86	311	49	8	248	794	118	5	637	149
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	97	162	137	363	441	374	298	1486	663	12	916	408
Arrive On Green	0.06	0.09	0.09	0.21	0.24	0.24	0.17	0.42	0.42	0.01	0.26	0.26
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	71	11	86	311	49	8	248	794	118	5	637	149
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	2.6	0.4	3.5	11.3	1.4	0.3	9.0	11.1	3.1	0.2	10.8	5.1
Cycle Q Clear(g_c), s	2.6	0.4	3.5	11.3	1.4	0.3	9.0	11.1	3.1	0.2	10.8	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	162	137	363	441	374	298	1486	663	12	916	408
V/C Ratio(X)	0.73	0.07	0.63	0.86	0.11	0.02	0.83	0.53	0.18	0.43	0.70	0.36
Avail Cap(c_a), veh/h	168	967	820	471	1286	1090	418	2374	1059	133	1806	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	27.5	29.0	25.2	19.5	19.1	26.4	14.1	11.8	32.6	21.9	19.8
Incr Delay (d2), s/veh	10.2	0.2	4.6	11.8	0.1	0.0	9.7	0.3	0.1	23.1	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	1.4	5.6	0.6	0.1	4.2	3.7	0.9	0.1	4.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	27.7	33.6	37.0	19.7	19.1	36.1	14.4	11.9	55.7	22.9	20.4
LnGrp LOS	D	C	C	D	B	B	D	B	B	E	C	C
Approach Vol, veh/h		168			368			1160			791	
Approach Delay, s/veh		36.3			34.3			18.8			22.6	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	10.3	15.7	21.7	8.1	20.3	4.9	32.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.7	34.6	15.7	34.0	6.3	46.0	5.0	44.7
Max Q Clear Time (g_c+I1), s	13.3	5.5	11.0	12.8	4.6	3.4	2.2	13.1
Green Ext Time (p_c), s	0.4	0.3	0.3	4.4	0.0	0.3	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	210	184	84	382	126	223	787	103	86	630	137
Future Volume (veh/h)	62	210	184	84	382	126	223	787	103	86	630	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	75	253	222	101	460	152	269	948	124	104	759	165
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	95	605	511	125	1237	552	287	1228	548	129	912	407
Arrive On Green	0.05	0.34	0.34	0.07	0.36	0.36	0.17	0.35	0.35	0.07	0.26	0.26
Sat Flow, veh/h	1739	1784	1506	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	75	246	229	101	460	152	269	948	124	104	759	165
Grp Sat Flow(s),veh/h/ln	1739	1735	1555	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	4.8	12.2	12.8	6.4	11.0	7.8	17.1	27.2	6.3	6.6	23.1	9.9
Cycle Q Clear(g_c), s	4.8	12.2	12.8	6.4	11.0	7.8	17.1	27.2	6.3	6.6	23.1	9.9
Prop In Lane	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	589	528	125	1237	552	287	1228	548	129	912	407
V/C Ratio(X)	0.79	0.42	0.43	0.81	0.37	0.28	0.94	0.77	0.23	0.81	0.83	0.41
Avail Cap(c_a), veh/h	141	589	528	132	1237	552	287	1391	621	165	1146	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	28.5	28.7	51.2	26.7	25.7	46.2	32.2	25.4	51.1	38.9	34.1
Incr Delay (d2), s/veh	15.8	2.2	2.6	28.8	0.9	1.2	36.5	2.4	0.2	20.1	4.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.1	4.8	3.7	4.4	3.0	10.1	11.4	2.3	3.5	10.1	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.1	30.6	31.2	80.0	27.6	26.9	82.6	34.6	25.6	71.2	43.3	34.7
LnGrp LOS	E	C	C	E	C	C	F	C	C	E	D	C
Approach Vol, veh/h		550			713			1341			1028	
Approach Delay, s/veh		36.0			34.9			43.4			44.8	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	42.5	23.0	33.9	10.6	44.4	12.8	44.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.0	18.5	37.0	9.1	37.4	10.6	44.9
Max Q Clear Time (g_c+I1), s	9.4	14.8	19.1	25.1	6.8	13.0	8.6	29.2
Green Ext Time (p_c), s	0.0	2.5	0.0	4.3	0.0	3.1	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	100	64	1057	49	31	595
Future Volume (veh/h)	100	64	1057	49	31	595
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	127	81	1338	62	39	753
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	6	6	6	6	6	6
Cap, veh/h	381	339	1660	77	295	2423
Arrive On Green	0.22	0.22	0.50	0.50	0.17	0.70
Sat Flow, veh/h	1725	1535	3439	155	1725	3532
Grp Volume(v), veh/h	127	81	686	714	39	753
Grp Sat Flow(s),veh/h/ln	1725	1535	1721	1783	1725	1721
Q Serve(g_s), s	7.4	5.2	40.2	40.4	2.3	9.9
Cycle Q Clear(g_c), s	7.4	5.2	40.2	40.4	2.3	9.9
Prop In Lane	1.00	1.00		0.09	1.00	
Lane Grp Cap(c), veh/h	381	339	853	884	295	2423
V/C Ratio(X)	0.33	0.24	0.80	0.81	0.13	0.31
Avail Cap(c_a), veh/h	381	339	853	884	295	2423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	38.5	25.4	25.4	42.2	6.7
Incr Delay (d2), s/veh	2.3	1.7	5.7	5.6	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	5.0	17.2	17.9	1.1	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.7	40.1	31.0	31.0	43.1	7.1
LnGrp LOS	D	D	C	C	D	A
Approach Vol, veh/h	208		1400			792
Approach Delay, s/veh	41.1		31.0			8.8
Approach LOS	D		C			A

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		89.0		31.0	25.0	64.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		84.5		26.5	20.5	59.5
Max Q Clear Time (g_c+I1), s		11.9		9.4	4.3	42.4
Green Ext Time (p_c), s		6.5		0.5	0.1	9.3

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	495	19	115	967	96	56	21	103	81	35	19
Future Volume (veh/h)	10	495	19	115	967	96	56	21	103	81	35	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	562	22	131	1099	104	64	23	117	88	38	21
Peak Hour Factor	0.92	0.88	0.88	0.88	0.88	0.92	0.88	0.92	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	1295	51	172	1490	141	101	35	178	119	160	89
Arrive On Green	0.01	0.37	0.37	0.10	0.45	0.45	0.06	0.13	0.13	0.07	0.14	0.14
Sat Flow, veh/h	1781	3486	136	1781	3281	310	1781	267	1359	1781	1132	626
Grp Volume(v), veh/h	11	286	298	131	595	608	64	0	140	88	0	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1846	1781	1777	1815	1781	0	1626	1781	0	1758
Q Serve(g_s), s	0.3	6.7	6.7	4.0	15.2	15.3	1.9	0.0	4.5	2.7	0.0	1.7
Cycle Q Clear(g_c), s	0.3	6.7	6.7	4.0	15.2	15.3	1.9	0.0	4.5	2.7	0.0	1.7
Prop In Lane	1.00		0.07	1.00		0.17	1.00		0.84	1.00		0.36
Lane Grp Cap(c), veh/h	25	660	686	172	807	824	101	0	213	119	0	249
V/C Ratio(X)	0.44	0.43	0.43	0.76	0.74	0.74	0.64	0.00	0.66	0.74	0.00	0.24
Avail Cap(c_a), veh/h	582	1542	1602	530	1491	1523	595	0	775	338	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	13.0	13.0	24.4	12.4	12.4	25.6	0.0	22.9	25.4	0.0	21.1
Incr Delay (d2), s/veh	11.6	0.4	0.4	6.8	1.3	1.3	6.5	0.0	3.4	8.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.0	2.1	1.7	4.2	4.3	1.0	0.0	1.8	1.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	13.5	13.5	31.2	13.7	13.7	32.1	0.0	26.3	33.9	0.0	21.6
LnGrp LOS	D	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		595			1334			204			147	
Approach Delay, s/veh		14.0			15.5			28.1			29.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	25.5	7.6	12.4	5.3	30.1	8.2	11.9
Change Period (Y+Rc), s	4.5	* 4.9	4.5	* 4.6	4.5	* 4.9	4.5	* 4.6
Max Green Setting (Gmax), s	16.5	* 48	18.5	* 19	18.1	* 47	10.5	* 26
Max Q Clear Time (g_c+I1), s	6.0	8.7	3.9	3.7	2.3	17.3	4.7	6.5
Green Ext Time (p_c), s	0.2	3.1	0.1	0.2	0.0	7.9	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	124	9	107	241	12	15	38	82	34	32	22
Future Vol, veh/h	14	124	9	107	241	12	15	38	82	34	32	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	19	168	12	145	326	16	20	51	111	46	43	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	342	0	0	180	0	0	873	844	174	917	842	334
Stage 1	-	-	-	-	-	-	212	212	-	624	624	-
Stage 2	-	-	-	-	-	-	661	632	-	293	218	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1223	-	-	1402	-	-	272	301	872	254	302	710
Stage 1	-	-	-	-	-	-	792	729	-	475	479	-
Stage 2	-	-	-	-	-	-	453	475	-	717	724	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1223	-	-	1402	-	-	208	266	872	172	267	710
Mov Cap-2 Maneuver	-	-	-	-	-	-	208	266	-	172	267	-
Stage 1	-	-	-	-	-	-	779	717	-	467	430	-
Stage 2	-	-	-	-	-	-	350	426	-	572	712	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2.3	16.4	31.2
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	208	507	1223	-	-	1402	-	-	253
HCM Lane V/C Ratio	0.097	0.32	0.015	-	-	0.103	-	-	0.47
HCM Control Delay (s)	24.2	15.4	8	-	-	7.9	-	-	31.2
HCM Lane LOS	C	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.3	1.4	0	-	-	0.3	-	-	2.3

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	114	42	66	162	1	65	2	44	0	0	0
Future Vol, veh/h	0	114	42	66	162	1	65	2	44	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	136	50	79	193	1	77	2	52	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	194	0	0	186	0	0	513	513	161	540	538	194
Stage 1	-	-	-	-	-	-	161	161	-	352	352	-
Stage 2	-	-	-	-	-	-	352	352	-	188	186	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1379	-	-	1388	-	-	472	465	884	453	450	847
Stage 1	-	-	-	-	-	-	841	765	-	665	632	-
Stage 2	-	-	-	-	-	-	665	632	-	814	746	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1379	-	-	1388	-	-	449	435	884	404	421	847
Mov Cap-2 Maneuver	-	-	-	-	-	-	449	435	-	404	421	-
Stage 1	-	-	-	-	-	-	841	765	-	665	592	-
Stage 2	-	-	-	-	-	-	622	592	-	763	746	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.2	13.5	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	557	1379	-	-	1388	-	-	-
HCM Lane V/C Ratio	0.237	-	-	-	0.057	-	-	-
HCM Control Delay (s)	13.5	0	-	-	7.7	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.9	0	-	-	0.2	-	-	-

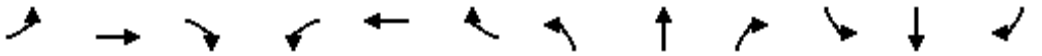
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	23	0	11	0	90	8	4	92	0
Future Vol, veh/h	0	0	0	23	0	11	0	90	8	4	92	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	29	0	14	0	113	10	5	115	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	250	248	115	243	243	118	115	0	0	123	0	0
Stage 1	125	125	-	118	118	-	-	-	-	-	-	-
Stage 2	125	123	-	125	125	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	701	653	935	709	657	931	1468	-	-	1458	-	-
Stage 1	877	791	-	884	796	-	-	-	-	-	-	-
Stage 2	877	792	-	877	791	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	688	650	935	707	654	931	1468	-	-	1458	-	-
Mov Cap-2 Maneuver	688	650	-	707	654	-	-	-	-	-	-	-
Stage 1	877	788	-	884	796	-	-	-	-	-	-	-
Stage 2	864	792	-	873	788	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10	0	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1468	-	-	-	767	1458	-	-
HCM Lane V/C Ratio	-	-	-	-	0.055	0.003	-	-
HCM Control Delay (s)	0	-	-	0	10	7.5	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	408	206	195	775	302	237	366	155	304	459	173
Future Volume (veh/h)	165	408	206	195	775	302	237	366	155	304	459	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	516	261	247	981	382	300	463	196	385	581	219
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	614	521	250	686	581	109	501	425	196	1125	502
Arrive On Green	0.10	0.33	0.33	0.14	0.37	0.37	0.06	0.27	0.27	0.11	0.32	0.32
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	209	516	261	247	981	382	300	463	196	385	581	219
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	12.0	30.1	15.6	16.3	43.1	23.6	7.2	28.3	12.1	12.9	15.7	12.9
Cycle Q Clear(g_c), s	12.0	30.1	15.6	16.3	43.1	23.6	7.2	28.3	12.1	12.9	15.7	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	614	521	250	686	581	109	501	425	196	1125	502
V/C Ratio(X)	1.15	0.84	0.50	0.99	1.43	0.66	2.75	0.92	0.46	1.97	0.52	0.44
Avail Cap(c_a), veh/h	182	614	521	250	686	581	109	541	459	196	1201	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	36.6	31.7	50.4	37.2	31.0	55.1	41.8	35.9	52.3	32.8	31.8
Incr Delay (d2), s/veh	112.4	13.0	3.4	53.2	201.8	5.7	811.9	20.9	0.8	453.8	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	15.0	6.2	10.6	56.5	9.5	27.8	15.4	4.6	30.3	6.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	165.2	49.6	35.1	103.6	239.0	36.7	867.0	62.7	36.7	506.1	33.2	32.4
LnGrp LOS	F	D	D	F	F	D	F	E	D	F	C	C
Approach Vol, veh/h		986			1610			959			1185	
Approach Delay, s/veh		70.3			170.2			309.0			186.7	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	43.1	11.7	41.7	16.5	47.6	17.4	36.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	38.6	7.2	39.7	12.0	43.1	12.9	34.0
Max Q Clear Time (g_c+I1), s	18.3	32.1	9.2	17.7	14.0	45.1	14.9	30.3
Green Ext Time (p_c), s	0.0	2.1	0.0	4.3	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	181.6
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	123	277	253	194	56	173	440	120	51	672	80
Future Volume (veh/h)	69	123	277	253	194	56	173	440	120	51	672	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	143	322	294	226	65	201	512	140	59	781	93
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	157	354	322	602	173	215	591	501	76	761	91
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	511	1152	1781	1396	402	1781	1870	1585	1781	3198	381
Grp Volume(v), veh/h	80	0	465	294	0	291	201	512	140	59	434	440
Grp Sat Flow(s),veh/h/ln	1781	0	1663	1781	0	1798	1781	1870	1585	1781	1777	1802
Q Serve(g_s), s	5.2	0.0	31.6	19.1	0.0	12.9	13.2	30.3	7.8	3.9	28.0	28.0
Cycle Q Clear(g_c), s	5.2	0.0	31.6	19.1	0.0	12.9	13.2	30.3	7.8	3.9	28.0	28.0
Prop In Lane	1.00		0.69	1.00		0.22	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	102	0	512	322	0	776	215	591	501	76	423	429
V/C Ratio(X)	0.79	0.00	0.91	0.91	0.00	0.38	0.94	0.87	0.28	0.78	1.03	1.03
Avail Cap(c_a), veh/h	156	0	512	357	0	776	215	591	501	86	423	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	0.0	39.2	47.3	0.0	22.7	51.3	37.9	30.2	55.8	44.8	44.8
Incr Delay (d2), s/veh	13.5	0.0	22.6	25.6	0.0	1.4	43.5	15.6	1.4	31.9	50.6	50.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	15.5	10.5	0.0	5.5	8.3	15.8	3.1	2.4	17.8	18.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.3	0.0	61.8	72.9	0.0	24.1	94.8	53.5	31.6	87.6	95.5	95.3
LnGrp LOS	E	A	E	E	A	C	F	D	C	F	F	F
Approach Vol, veh/h		545			585			853			933	
Approach Delay, s/veh		62.7			48.6			59.7			94.9	
Approach LOS		E			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	40.7	18.7	32.5	11.2	55.3	9.5	41.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	11.1	33.6	15.2	30.0	7.2	14.9	5.9	32.3
Green Ext Time (p_c), s	0.2	0.7	0.0	0.0	0.0	1.7	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	69.3
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	257	45	168	311	175	227	538	162	350	812	105
Future Volume (veh/h)	52	257	45	168	311	175	227	538	162	350	812	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	299	52	195	362	203	264	626	188	407	944	122
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	978	436	220	1263	563	291	792	353	435	1080	482
Arrive On Green	0.04	0.28	0.28	0.12	0.36	0.36	0.16	0.22	0.22	0.24	0.30	0.30
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	60	299	52	195	362	203	264	626	188	407	944	122
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.5	8.9	3.3	14.5	9.8	12.7	19.6	22.3	14.1	30.1	33.8	7.8
Cycle Q Clear(g_c), s	4.5	8.9	3.3	14.5	9.8	12.7	19.6	22.3	14.1	30.1	33.8	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	978	436	220	1263	563	291	792	353	435	1080	482
V/C Ratio(X)	0.78	0.31	0.12	0.89	0.29	0.36	0.91	0.79	0.53	0.93	0.87	0.25
Avail Cap(c_a), veh/h	170	978	436	258	1263	563	370	952	425	524	1259	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	38.5	36.5	58.0	31.1	32.0	55.2	49.3	46.1	49.7	44.3	35.3
Incr Delay (d2), s/veh	15.2	0.8	0.6	25.9	0.6	1.8	21.9	3.8	1.2	22.0	6.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.9	1.3	7.9	4.1	5.1	10.3	10.1	5.6	15.7	15.4	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.8	39.3	37.0	83.9	31.7	33.8	77.1	53.1	47.3	71.8	50.7	35.6
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	D	D
Approach Vol, veh/h		411			760			1078			1473	
Approach Delay, s/veh		44.8			45.6			58.0			55.3	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	41.5	26.5	45.3	10.3	52.3	37.3	34.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	37.0	27.9	47.6	12.8	43.7	39.5	36.0
Max Q Clear Time (g_c+I1), s	16.5	10.9	21.6	35.8	6.5	14.7	32.1	24.3
Green Ext Time (p_c), s	0.1	1.8	0.4	5.0	0.0	2.7	0.8	3.5

Intersection Summary	
HCM 6th Ctrl Delay	52.9
HCM 6th LOS	D

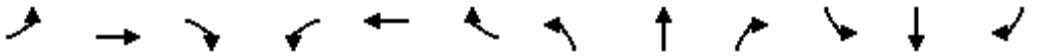
Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	9	114	19	5	217
Future Vol, veh/h	35	9	114	19	5	217
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	54	14	175	29	8	334

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	540	190	0	0	204	0
Stage 1	190	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.18	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	-	-	2.272	-
Pot Cap-1 Maneuver	493	837	-	-	1333	-
Stage 1	828	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	490	837	-	-	1333	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	695	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	535	1333	-
HCM Lane V/C Ratio	-	-	0.127	0.006	-
HCM Control Delay (s)	-	-	12.7	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	862	6	83	877	0	20	0	48	0	0	0
Future Volume (veh/h)	40	862	6	83	877	0	20	0	48	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	0	1722	1722	1722			
Adj Flow Rate, veh/h	43	937	7	90	953	0	22	0	52			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	12	12	12	12	12	0	12	12	12			
Cap, veh/h	386	1989	15	113	2317	0	94	0	221			
Arrive On Green	0.60	0.60	0.60	0.07	0.71	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	542	3329	25	1640	3358	0	449	0	1060			
Grp Volume(v), veh/h	43	461	483	90	953	0	74	0	0			
Grp Sat Flow(s),veh/h/ln	542	1636	1718	1640	1636	0	1509	0	0			
Q Serve(g_s), s	3.8	17.0	17.0	5.8	12.9	0.0	4.4	0.0	0.0			
Cycle Q Clear(g_c), s	4.8	17.0	17.0	5.8	12.9	0.0	4.4	0.0	0.0			
Prop In Lane	1.00		0.01	1.00		0.00	0.30		0.70			
Lane Grp Cap(c), veh/h	386	978	1027	113	2317	0	315	0	0			
V/C Ratio(X)	0.11	0.47	0.47	0.80	0.41	0.00	0.24	0.00	0.00			
Avail Cap(c_a), veh/h	386	978	1027	296	2683	0	315	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.9	12.2	12.2	49.5	6.5	0.0	35.6	0.0	0.0			
Incr Delay (d2), s/veh	0.6	1.6	1.6	12.0	0.1	0.0	1.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.5	5.6	5.9	2.6	3.2	0.0	1.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	13.8	13.7	61.5	6.6	0.0	37.3	0.0	0.0			
LnGrp LOS	B	B	B	E	A	A	D	A	A			
Approach Vol, veh/h		987			1043			74				
Approach Delay, s/veh		13.6			11.3			37.3				
Approach LOS		B			B			D				

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.9	69.0				80.9		27.0				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	19.5	64.5				88.5		22.5				
Max Q Clear Time (g_c+I1), s	7.8	19.0				14.9		6.4				
Green Ext Time (p_c), s	0.1	6.6				7.1		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	62	17	88	60	148	43	765	102	194	516	0
Future Volume (veh/h)	6	62	17	88	60	148	43	765	102	194	516	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	7	70	19	100	68	168	49	869	116	220	586	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	74	360	92	173	105	202	79	1227	547	272	1611	0
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.05	0.36	0.36	0.16	0.47	0.00
Sat Flow, veh/h	41	1353	344	364	395	759	1725	3441	1535	1725	3532	0
Grp Volume(v), veh/h	96	0	0	336	0	0	49	869	116	220	586	0
Grp Sat Flow(s),veh/h/ln	1738	0	0	1518	0	0	1725	1721	1535	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	9.8	0.0	0.0	1.7	13.4	3.2	7.6	6.7	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0	12.7	0.0	0.0	1.7	13.4	3.2	7.6	6.7	0.0
Prop In Lane	0.07		0.20	0.30		0.50	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	526	0	0	480	0	0	79	1227	547	272	1611	0
V/C Ratio(X)	0.18	0.00	0.00	0.70	0.00	0.00	0.62	0.71	0.21	0.81	0.36	0.00
Avail Cap(c_a), veh/h	800	0	0	724	0	0	462	3437	1533	518	3549	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.5	0.0	0.0	21.1	0.0	0.0	28.8	17.1	13.8	25.0	10.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.9	0.0	0.0	7.5	0.8	0.2	5.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	4.4	0.0	0.0	0.8	4.2	0.9	3.0	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	0.0	0.0	23.0	0.0	0.0	36.4	17.8	14.0	30.7	10.6	0.0
LnGrp LOS	B	A	A	C	A	A	D	B	B	C	B	A
Approach Vol, veh/h		96			336			1034			806	
Approach Delay, s/veh		17.7			23.0			18.3			16.1	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	20.9	7.3	33.3	20.9	14.2	26.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	16.5	63.5	26.5	18.5	61.5
Max Q Clear Time (g_c+I1), s	4.6	3.7	8.7	14.7	9.6	15.4
Green Ext Time (p_c), s	0.4	0.1	3.7	1.7	0.4	6.6

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	502	121	305	491	136	210	695	241	111	450	270
Future Volume (veh/h)	285	502	121	305	491	136	210	695	241	111	450	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	297	523	126	318	511	142	219	724	251	116	469	281
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	11	11	11	11	11	11	11	11	11	11	11	11
Cap, veh/h	328	702	313	348	742	331	248	1076	480	141	519	309
Arrive On Green	0.20	0.21	0.21	0.21	0.22	0.22	0.15	0.33	0.33	0.09	0.26	0.26
Sat Flow, veh/h	1654	3300	1472	1654	3300	1472	1654	3300	1472	1654	1989	1185
Grp Volume(v), veh/h	297	523	126	318	511	142	219	724	251	116	389	361
Grp Sat Flow(s),veh/h/ln	1654	1650	1472	1654	1650	1472	1654	1650	1472	1654	1650	1524
Q Serve(g_s), s	19.1	16.1	8.0	20.4	15.4	9.0	14.1	20.6	15.0	7.5	24.7	24.9
Cycle Q Clear(g_c), s	19.1	16.1	8.0	20.4	15.4	9.0	14.1	20.6	15.0	7.5	24.7	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	328	702	313	348	742	331	248	1076	480	141	431	398
V/C Ratio(X)	0.91	0.74	0.40	0.91	0.69	0.43	0.88	0.67	0.52	0.82	0.90	0.91
Avail Cap(c_a), veh/h	419	702	313	419	742	331	318	1207	538	178	463	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	40.0	36.8	41.9	38.6	36.1	45.2	31.6	29.7	48.9	38.8	38.9
Incr Delay (d2), s/veh	19.7	7.1	3.8	21.9	5.2	4.0	20.0	1.3	0.9	21.2	19.8	22.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	6.8	3.0	9.9	6.4	3.4	6.8	7.8	5.1	3.8	11.7	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.2	47.0	40.6	63.8	43.8	40.1	65.2	32.9	30.6	70.1	58.6	60.9
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h		946			971			1194			866	
Approach Delay, s/veh		51.0			49.8			38.3			61.1	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	27.6	20.8	32.9	26.0	28.9	13.8	39.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	23.1	20.9	30.5	27.5	23.0	11.7	39.7
Max Q Clear Time (g_c+I1), s	22.4	18.1	16.1	26.9	21.1	17.4	9.5	22.6
Green Ext Time (p_c), s	0.4	1.6	0.2	1.4	0.5	1.7	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	3	161	47	0	18	95	970	42	9	912	50
Future Volume (veh/h)	109	3	161	47	0	18	95	970	42	9	912	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	111	3	164	48	0	18	97	990	43	9	931	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	12	12	12	12	12	12	12	12	12	12	12	12
Cap, veh/h	116	1294	577	60	1183	528	121	1270	566	18	1065	475
Arrive On Green	0.07	0.40	0.40	0.04	0.00	0.36	0.07	0.39	0.39	0.01	0.33	0.33
Sat Flow, veh/h	1640	3272	1459	1640	3272	1459	1640	3272	1459	1640	3272	1459
Grp Volume(v), veh/h	111	3	164	48	0	18	97	990	43	9	931	51
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1640	1636	1459	1640	1636	1459	1640	1636	1459
Q Serve(g_s), s	7.2	0.1	8.1	3.1	0.0	0.8	6.2	28.3	2.0	0.6	28.6	2.6
Cycle Q Clear(g_c), s	7.2	0.1	8.1	3.1	0.0	0.8	6.2	28.3	2.0	0.6	28.6	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1294	577	60	1183	528	121	1270	566	18	1065	475
V/C Ratio(X)	0.96	0.00	0.28	0.81	0.00	0.03	0.80	0.78	0.08	0.50	0.87	0.11
Avail Cap(c_a), veh/h	116	1294	577	100	1183	528	239	1521	678	100	1244	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	19.5	21.9	50.9	0.0	22.0	48.6	28.6	20.5	52.4	33.9	25.1
Incr Delay (d2), s/veh	71.3	0.0	1.2	21.7	0.0	0.1	11.7	2.2	0.1	19.9	6.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	2.8	1.6	0.0	0.3	2.8	10.4	0.6	0.3	11.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	120.6	19.5	23.1	72.6	0.0	22.1	60.3	30.8	20.6	72.2	40.2	25.2
LnGrp LOS	F	B	C	E	A	C	E	C	C	E	D	C
Approach Vol, veh/h		278			66			1130			991	
Approach Delay, s/veh		62.0			58.8			32.9			39.8	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	46.6	12.3	39.2	12.0	43.0	5.7	45.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	39.5	15.5	40.5	7.5	38.5	6.5	49.5
Max Q Clear Time (g_c+I1), s	5.1	10.1	8.2	30.6	9.2	2.8	2.6	30.3
Green Ext Time (p_c), s	0.0	0.6	0.1	4.1	0.0	0.0	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	252	7	0	3	61	944	3	1	1175	32
Future Volume (veh/h)	149	0	252	7	0	3	61	944	3	1	1175	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	184	0	311	9	0	4	75	1165	4	1	1451	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	382	0	356	102	12	18	94	2031	7	2	1804	805
Arrive On Green	0.24	0.00	0.24	0.24	0.00	0.24	0.06	0.60	0.60	0.00	0.54	0.54
Sat Flow, veh/h	1323	0	1485	122	51	77	1668	3402	12	1668	3328	1485
Grp Volume(v), veh/h	184	0	311	13	0	0	75	570	599	1	1451	40
Grp Sat Flow(s),veh/h/ln	1323	0	1485	251	0	0	1668	1664	1750	1668	1664	1485
Q Serve(g_s), s	0.0	0.0	16.8	0.2	0.0	0.0	3.7	17.5	17.5	0.0	29.5	1.1
Cycle Q Clear(g_c), s	11.3	0.0	16.8	17.0	0.0	0.0	3.7	17.5	17.5	0.0	29.5	1.1
Prop In Lane	1.00		1.00	0.69		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	382	0	356	133	0	0	94	993	1044	2	1804	805
V/C Ratio(X)	0.48	0.00	0.87	0.10	0.00	0.00	0.80	0.57	0.57	0.44	0.80	0.05
Avail Cap(c_a), veh/h	438	0	419	181	0	0	100	1449	1524	210	3118	1391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	30.5	25.8	0.0	0.0	38.8	10.3	10.3	41.5	15.5	9.0
Incr Delay (d2), s/veh	0.9	0.0	16.3	0.3	0.0	0.0	33.4	0.5	0.5	95.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	7.4	0.2	0.0	0.0	2.3	4.7	5.0	0.1	8.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	46.8	26.1	0.0	0.0	72.2	10.8	10.8	137.1	16.4	9.0
LnGrp LOS	C	A	D	C	A	A	E	B	B	F	B	A
Approach Vol, veh/h		495			13			1244			1492	
Approach Delay, s/veh		40.3			26.1			14.5			16.2	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.4	9.2	49.6	24.4	4.6	54.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	5.0	78.0	23.5	10.5	72.5
Max Q Clear Time (g_c+I1), s	18.8	5.7	31.5	19.0	2.0	19.5
Green Ext Time (p_c), s	1.2	0.0	13.6	0.0	0.0	8.2

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	243	245	86	164	197	169	759	65	273	1003	110
Future Volume (veh/h)	105	243	245	86	164	197	169	759	65	273	1003	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	112	259	261	91	174	210	180	807	69	290	1067	117
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	130	1097	489	112	1061	473	203	920	410	312	1136	507
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.12	0.28	0.28	0.19	0.34	0.34
Sat Flow, veh/h	1668	3328	1485	1668	3328	1485	1668	3328	1485	1668	3328	1485
Grp Volume(v), veh/h	112	259	261	91	174	210	180	807	69	290	1067	117
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1664	1485	1668	1664	1485	1668	1664	1485
Q Serve(g_s), s	8.5	7.3	18.4	6.9	4.8	14.4	13.6	29.7	4.5	22.0	39.9	7.2
Cycle Q Clear(g_c), s	8.5	7.3	18.4	6.9	4.8	14.4	13.6	29.7	4.5	22.0	39.9	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	1097	489	112	1061	473	203	920	410	312	1136	507
V/C Ratio(X)	0.86	0.24	0.53	0.82	0.16	0.44	0.89	0.88	0.17	0.93	0.94	0.23
Avail Cap(c_a), veh/h	130	1097	489	135	1061	473	209	960	428	313	1167	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	31.3	35.0	59.1	31.4	34.7	55.5	44.4	35.2	51.4	41.0	30.2
Incr Delay (d2), s/veh	40.8	0.5	4.1	26.4	0.3	3.0	32.8	9.0	0.2	33.2	14.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.9	6.9	3.7	1.9	5.4	7.4	12.9	1.6	11.6	17.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.3	31.8	39.1	85.5	31.8	37.7	88.3	53.4	35.4	84.6	54.9	30.4
LnGrp LOS	F	C	D	F	C	D	F	D	D	F	D	C
Approach Vol, veh/h		632			475			1056			1474	
Approach Delay, s/veh		46.8			44.7			58.2			58.8	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	46.8	20.1	48.3	14.5	45.4	28.5	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.4	40.5	16.1	45.0	10.0	40.9	24.1	37.0
Max Q Clear Time (g_c+I1), s	8.9	20.4	15.6	41.9	10.5	16.4	24.0	31.7
Green Ext Time (p_c), s	0.0	2.2	0.0	1.9	0.0	1.6	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	12.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Future Vol, veh/h	57	2	25	8	5	5	26	243	20	2	201	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	60	2	26	8	5	5	27	256	21	2	212	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	28	0	0	294	161	15	298	172	8
Stage 1	-	-	-	-	-	-	135	135	-	24	24	-
Stage 2	-	-	-	-	-	-	159	26	-	274	148	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1584	-	-	1560	-	-	650	724	1053	646	714	1062
Stage 1	-	-	-	-	-	-	859	777	-	984	867	-
Stage 2	-	-	-	-	-	-	834	866	-	723	767	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1584	-	-	1560	-	-	452	692	1053	437	683	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	452	692	-	437	683	-
Stage 1	-	-	-	-	-	-	825	747	-	946	863	-
Stage 2	-	-	-	-	-	-	592	862	-	448	737	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5	3.3	14.6	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	676	1584	-	-	1560	-	-	737
HCM Lane V/C Ratio	0.45	0.038	-	-	0.005	-	-	0.37
HCM Control Delay (s)	14.6	7.4	0	-	7.3	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.3	0.1	-	-	0	-	-	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	700	81	58	617	156	78	64	48	210	71	229
Future Volume (veh/h)	129	700	81	58	617	156	78	64	48	210	71	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	136	737	85	61	649	164	82	67	51	221	75	241
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	180	1189	530	100	1029	459	187	142	77	470	120	387
Arrive On Green	0.10	0.35	0.35	0.06	0.30	0.30	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	257	446	241	1234	378	1215
Grp Volume(v), veh/h	136	737	85	61	649	164	200	0	0	221	0	316
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	944	0	0	1234	0	1592
Q Serve(g_s), s	3.7	8.7	1.9	1.7	7.9	4.1	3.0	0.0	0.0	0.0	0.0	8.2
Cycle Q Clear(g_c), s	3.7	8.7	1.9	1.7	7.9	4.1	11.1	0.0	0.0	10.4	0.0	8.2
Prop In Lane	1.00		1.00	1.00		1.00	0.41		0.25	1.00		0.76
Lane Grp Cap(c), veh/h	180	1189	530	100	1029	459	405	0	0	470	0	507
V/C Ratio(X)	0.76	0.62	0.16	0.61	0.63	0.36	0.49	0.00	0.00	0.47	0.00	0.62
Avail Cap(c_a), veh/h	960	2802	1250	960	2802	1250	1081	0	0	1094	0	1313
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	13.2	11.0	22.3	14.7	13.3	14.6	0.0	0.0	14.8	0.0	14.1
Incr Delay (d2), s/veh	6.3	0.5	0.1	6.0	0.6	0.5	0.9	0.0	0.0	0.7	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.3	0.5	0.7	2.3	1.1	1.9	0.0	0.0	1.9	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	13.8	11.1	28.3	15.3	13.8	15.6	0.0	0.0	15.6	0.0	15.3
LnGrp LOS	C	B	B	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		958			874			200			537	
Approach Delay, s/veh		15.5			16.0			15.6			15.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	21.3		19.9	9.6	19.0		19.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	27.0	39.5		40.0	27.0	39.5		40.0				
Max Q Clear Time (g_c+I1), s	3.7	10.7		12.4	5.7	9.9		13.1				
Green Ext Time (p_c), s	0.1	5.0		3.0	0.3	4.6		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		15.6	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	421	51	67	276	60	44	98	125	179	179	103
Future Volume (veh/h)	63	421	51	67	276	60	44	98	125	179	179	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767	1767
Adj Flow Rate, veh/h	82	547	66	87	358	78	57	127	162	232	232	134
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	142	694	84	144	776	346	137	301	352	293	259	146
Arrive On Green	0.08	0.23	0.23	0.09	0.23	0.23	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1682	3017	363	1682	3357	1497	191	581	679	476	501	282
Grp Volume(v), veh/h	82	304	309	87	358	78	346	0	0	598	0	0
Grp Sat Flow(s),veh/h/ln	1682	1678	1701	1682	1678	1497	1451	0	0	1259	0	0
Q Serve(g_s), s	5.1	18.4	18.5	5.4	9.9	4.6	0.0	0.0	0.0	33.2	0.0	0.0
Cycle Q Clear(g_c), s	5.1	18.4	18.5	5.4	9.9	4.6	14.9	0.0	0.0	48.1	0.0	0.0
Prop In Lane	1.00		0.21	1.00		1.00	0.16		0.47	0.39		0.22
Lane Grp Cap(c), veh/h	142	386	391	144	776	346	790	0	0	698	0	0
V/C Ratio(X)	0.58	0.79	0.79	0.60	0.46	0.23	0.44	0.00	0.00	0.86	0.00	0.00
Avail Cap(c_a), veh/h	168	458	465	179	938	419	858	0	0	761	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	47.6	39.1	39.1	47.6	35.7	33.7	16.0	0.0	0.0	25.3	0.0	0.0
Incr Delay (d2), s/veh	3.6	12.9	13.1	4.0	1.6	1.2	1.4	0.0	0.0	11.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	8.5	8.6	2.3	4.0	1.7	5.2	0.0	0.0	15.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	52.0	52.2	51.6	37.3	34.9	17.4	0.0	0.0	37.1	0.0	0.0
LnGrp LOS	D	D	D	D	D	C	B	A	A	D	A	A
Approach Vol, veh/h		695			523			346			598	
Approach Delay, s/veh		52.0			39.3			17.4			37.1	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.3	31.9		62.9	13.1	32.0		62.9				
Change Period (Y+Rc), s	4.0	7.0		7.0	4.0	7.0		7.0				
Max Green Setting (Gmax), s	11.5	29.5		61.0	10.8	30.2		61.0				
Max Q Clear Time (g_c+I1), s	7.4	20.5		16.9	7.1	11.9		50.1				
Green Ext Time (p_c), s	0.1	4.4		6.3	0.0	4.9		5.8				

Intersection Summary	
HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

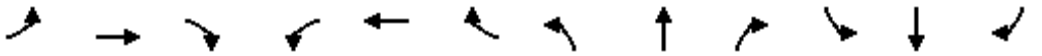
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	15	0	0	0
Future Vol, veh/h	0	23	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	52	34	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	86	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1591	-	-	-	920	1045
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	920	1045
Mov Cap-2 Maneuver	-	-	-	-	920	-
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	880	8	13	611	85	9	4	12	248	11	184
Future Volume (veh/h)	73	880	8	13	611	85	9	4	12	248	11	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
Adj Flow Rate, veh/h	77	926	8	14	643	89	9	4	13	261	12	194
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	9	9	9	9	9	9	9	9	9	9
Cap, veh/h	93	1202	10	26	1050	468	18	28	90	306	22	352
Arrive On Green	0.06	0.39	0.39	0.02	0.35	0.35	0.01	0.08	0.08	0.20	0.27	0.27
Sat Flow, veh/h	1514	3069	27	1514	3021	1347	1514	329	1069	1514	79	1280
Grp Volume(v), veh/h	77	456	478	14	643	89	9	0	17	261	0	206
Grp Sat Flow(s),veh/h/ln	1514	1510	1585	1514	1510	1347	1514	0	1398	1514	0	1360
Q Serve(g_s), s	3.0	15.5	15.5	0.5	10.4	2.7	0.3	0.0	0.7	9.8	0.0	7.7
Cycle Q Clear(g_c), s	3.0	15.5	15.5	0.5	10.4	2.7	0.3	0.0	0.7	9.8	0.0	7.7
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.76	1.00		0.94
Lane Grp Cap(c), veh/h	93	592	621	26	1050	468	18	0	118	306	0	374
V/C Ratio(X)	0.83	0.77	0.77	0.53	0.61	0.19	0.51	0.00	0.14	0.85	0.00	0.55
Avail Cap(c_a), veh/h	397	1290	1354	397	2581	1151	397	0	485	397	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.4	15.7	15.7	28.8	16.0	13.5	29.0	0.0	25.1	22.8	0.0	18.3
Incr Delay (d2), s/veh	16.5	2.2	2.1	15.7	0.6	0.2	21.1	0.0	0.6	13.2	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.3	4.4	0.3	2.8	0.8	0.2	0.0	0.2	4.3	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	17.8	17.7	44.5	16.6	13.7	50.2	0.0	25.6	36.0	0.0	19.6
LnGrp LOS	D	B	B	D	B	B	D	A	C	D	A	B
Approach Vol, veh/h		1011			746			26			467	
Approach Delay, s/veh		19.8			16.7			34.1			28.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	27.7	5.2	20.7	8.1	25.0	16.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	50.5	15.5	20.5	15.5	50.5	15.5	20.5
Max Q Clear Time (g_c+I1), s	2.5	17.5	2.3	9.7	5.0	12.4	11.8	2.7
Green Ext Time (p_c), s	0.0	5.6	0.0	0.9	0.1	4.4	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	186	37	37	34	20	30	90	99	20	40	7
Future Vol, veh/h	9	186	37	37	34	20	30	90	99	20	40	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	245	49	49	45	26	39	118	130	26	53	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	9.6	11.3	9.5
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	4%	41%	30%
Vol Thru, %	41%	80%	37%	60%
Vol Right, %	45%	16%	22%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	232	91	67
LT Vol	30	9	37	20
Through Vol	90	186	34	40
RT Vol	99	37	20	7
Lane Flow Rate	288	305	120	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.401	0.431	0.179	0.136
Departure Headway (Hd)	5.007	5.077	5.38	5.541
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	711	667	646
Service Time	3.024	3.095	3.415	3.579
HCM Lane V/C Ratio	0.4	0.429	0.18	0.136
HCM Control Delay	11.3	11.9	9.6	9.5
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.9	2.2	0.6	0.5

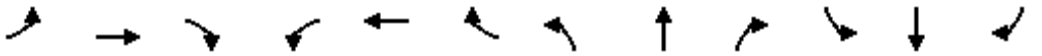
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	23	0	0	0	15	243	0	0	163	0
Future Vol, veh/h	0	0	23	0	0	0	15	243	0	0	163	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	26	0	0	0	17	270	0	0	181	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	485	485	181	498	485	270	181	0	0	270	0	0
Stage 1	181	181	-	304	304	-	-	-	-	-	-	-
Stage 2	304	304	-	194	181	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.19	6.59	6.29	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.19	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.581	4.081	3.381	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	481	472	844	471	472	752	1353	-	-	1254	-	-
Stage 1	805	737	-	691	650	-	-	-	-	-	-	-
Stage 2	691	650	-	792	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	476	465	844	452	465	752	1353	-	-	1254	-	-
Mov Cap-2 Maneuver	476	465	-	452	465	-	-	-	-	-	-	-
Stage 1	793	737	-	681	640	-	-	-	-	-	-	-
Stage 2	681	640	-	768	737	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	0	0.4	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1353	-	-	844	-	1254	-	-
HCM Lane V/C Ratio	0.012	-	-	0.03	-	-	-	-
HCM Control Delay (s)	7.7	0	-	9.4	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	703	336	171	438	228	217	424	176	209	384	57
Future Volume (veh/h)	133	703	336	171	438	228	217	424	176	209	384	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	773	369	188	481	251	238	466	193	230	422	63
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1082	483	228	1172	523	281	657	293	273	641	286
Arrive On Green	0.10	0.31	0.31	0.13	0.33	0.33	0.16	0.19	0.19	0.15	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	773	369	188	481	251	238	466	193	230	422	63
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.6	15.9	17.4	8.5	8.6	10.4	10.7	10.1	9.3	10.4	9.1	2.8
Cycle Q Clear(g_c), s	6.6	15.9	17.4	8.5	8.6	10.4	10.7	10.1	9.3	10.4	9.1	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1082	483	228	1172	523	281	657	293	273	641	286
V/C Ratio(X)	0.80	0.71	0.76	0.83	0.41	0.48	0.85	0.71	0.66	0.84	0.66	0.22
Avail Cap(c_a), veh/h	334	1644	733	334	1644	733	421	1227	547	421	1227	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	25.2	25.7	34.8	21.1	21.7	33.5	31.2	30.9	33.7	31.1	28.6
Incr Delay (d2), s/veh	7.8	0.9	2.6	10.4	0.2	0.7	9.9	1.4	2.5	9.1	1.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.0	6.2	4.0	3.2	3.6	5.1	4.1	3.5	4.8	3.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	26.1	28.3	45.2	21.4	22.4	43.4	32.7	33.4	42.7	32.3	28.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1288			920			897			715	
Approach Delay, s/veh		28.7			26.5			35.7			35.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	29.9	17.5	19.4	13.0	32.0	17.1	19.8
Change Period (Y+Rc), s	4.5	* 4.8	4.5	4.5	4.5	* 4.8	4.5	4.5
Max Green Setting (Gmax), s	15.5	* 38	19.5	28.5	15.5	* 38	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.5	19.4	12.7	11.1	8.6	12.4	12.4	12.1
Green Ext Time (p_c), s	0.2	5.7	0.4	2.5	0.2	3.6	0.4	3.1

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	276.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	53	110	71	6	111	67	668	105	138	806	12
Future Vol, veh/h	96	53	110	71	6	111	67	668	105	138	806	12
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	128	71	147	95	8	148	89	891	140	184	1075	16
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	159.4	31.1	288.2	345.4
HCM LOS	F	D	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	37%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	68%	20%	0%	5%	0%	100%	96%
Vol Right, %	0%	0%	32%	42%	0%	95%	0%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	445	328	259	71	117	138	537	281
LT Vol	67	0	0	96	71	0	138	0	0
Through Vol	0	445	223	53	0	6	0	537	269
RT Vol	0	0	105	110	0	111	0	0	12
Lane Flow Rate	89	594	437	345	95	156	184	716	374
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.283	1.799	1.297	1.185	0.349	0.525	0.572	2.127	1.108
Departure Headway (Hd)	13.041	12.507	12.268	15.395	16.28	15.055	12.606	12.075	12.043
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	278	297	301	238	222	242	289	308	303
Service Time	10.741	10.207	9.968	13.095	13.98	12.755	10.306	9.775	9.743
HCM Lane V/C Ratio	0.32	2	1.452	1.45	0.428	0.645	0.637	2.325	1.234
HCM Control Delay	20.8	401	189.6	159.4	27.5	33.3	30.9	543.8	120.3
HCM Lane LOS	C	F	F	F	D	D	D	F	F
HCM 95th-tile Q	1.1	34.4	18.6	13.3	1.5	2.8	3.3	47.1	13.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	54	292	125	39	3	102	684	255	16	893	83
Future Volume (veh/h)	127	54	292	125	39	3	102	684	255	16	893	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	64	348	149	46	4	121	814	304	19	1063	99
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	187	468	397	182	463	392	152	1463	653	37	1234	550
Arrive On Green	0.11	0.25	0.25	0.10	0.25	0.25	0.09	0.42	0.42	0.02	0.35	0.35
Sat Flow, veh/h	1753	1841	1560	1753	1841	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	151	64	348	149	46	4	121	814	304	19	1063	99
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1841	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	7.5	2.4	19.0	7.4	1.7	0.2	6.0	15.7	12.5	1.0	25.1	3.9
Cycle Q Clear(g_c), s	7.5	2.4	19.0	7.4	1.7	0.2	6.0	15.7	12.5	1.0	25.1	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	468	397	182	463	392	152	1463	653	37	1234	550
V/C Ratio(X)	0.81	0.14	0.88	0.82	0.10	0.01	0.80	0.56	0.47	0.51	0.86	0.18
Avail Cap(c_a), veh/h	345	912	773	207	767	650	247	1673	746	99	1378	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	25.6	31.8	39.0	25.5	25.0	39.8	19.6	18.7	43.0	26.7	19.9
Incr Delay (d2), s/veh	8.0	0.1	6.3	20.3	0.1	0.0	9.1	0.3	0.5	10.6	5.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	1.0	7.4	4.2	0.7	0.1	2.9	5.9	4.2	0.5	10.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	25.7	38.1	59.3	25.6	25.0	48.9	19.9	19.2	53.7	32.1	20.0
LnGrp LOS	D	C	D	E	C	C	D	B	B	D	C	C
Approach Vol, veh/h		563			199			1239			1181	
Approach Delay, s/veh		39.0			50.8			22.6			31.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	27.1	12.2	35.8	14.0	26.8	6.4	41.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	44.0	12.5	35.0	17.5	37.0	5.0	42.5
Max Q Clear Time (g_c+I1), s	9.4	21.0	8.0	27.1	9.5	3.7	3.0	17.7
Green Ext Time (p_c), s	0.0	1.6	0.1	4.2	0.2	0.2	0.0	6.9

Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	430	246	48	228	109	111	597	83	144	949	99
Future Volume (veh/h)	156	430	246	48	228	109	111	597	83	144	949	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	181	500	286	56	265	127	129	694	97	167	1103	115
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	211	716	408	71	887	396	155	1207	539	197	1291	576
Arrive On Green	0.12	0.34	0.34	0.04	0.26	0.26	0.09	0.35	0.35	0.11	0.37	0.37
Sat Flow, veh/h	1739	2129	1213	1739	3469	1547	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	181	407	379	56	265	127	129	694	97	167	1103	115
Grp Sat Flow(s),veh/h/ln	1739	1735	1608	1739	1735	1547	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	11.4	22.7	22.8	3.6	6.9	7.4	8.1	18.2	4.9	10.5	32.6	5.6
Cycle Q Clear(g_c), s	11.4	22.7	22.8	3.6	6.9	7.4	8.1	18.2	4.9	10.5	32.6	5.6
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	583	540	71	887	396	155	1207	539	197	1291	576
V/C Ratio(X)	0.86	0.70	0.70	0.78	0.30	0.32	0.83	0.57	0.18	0.85	0.85	0.20
Avail Cap(c_a), veh/h	293	583	540	78	887	396	156	1250	558	301	1539	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	32.1	32.2	53.0	33.4	33.7	50.0	29.6	25.3	48.5	32.2	23.7
Incr Delay (d2), s/veh	16.4	6.8	7.4	37.1	0.9	2.1	29.9	0.6	0.2	12.8	4.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.9	9.3	2.2	2.8	3.0	4.8	7.4	1.8	5.2	13.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	38.9	39.6	90.1	34.3	35.8	79.9	30.2	25.5	61.3	36.5	23.9
LnGrp LOS	E	D	D	F	C	D	E	C	C	E	D	C
Approach Vol, veh/h		967			448			920			1385	
Approach Delay, s/veh		44.0			41.7			36.7			38.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	42.0	14.5	46.0	18.0	33.0	17.2	43.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.6	37.5	10.0	49.5	18.8	23.7	19.3	40.2
Max Q Clear Time (g_c+I1), s	15.6	24.8	10.1	34.6	13.4	9.4	12.5	20.2
Green Ext Time (p_c), s	0.0	3.5	0.0	6.9	0.2	1.5	0.2	4.7

Intersection Summary	
HCM 6th Ctrl Delay	39.8
HCM 6th LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	73	79	796	150	77	1152
Future Volume (veh/h)	73	79	796	150	77	1152
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	81	88	884	167	86	1280
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	405	360	1764	333	110	2453
Arrive On Green	0.23	0.23	0.60	0.60	0.06	0.70
Sat Flow, veh/h	1767	1572	3052	559	1767	3618
Grp Volume(v), veh/h	81	88	527	524	86	1280
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1755	1767	1763
Q Serve(g_s), s	4.4	5.5	20.6	20.6	5.8	20.8
Cycle Q Clear(g_c), s	4.4	5.5	20.6	20.6	5.8	20.8
Prop In Lane	1.00	1.00		0.32	1.00	
Lane Grp Cap(c), veh/h	405	360	1051	1047	110	2453
V/C Ratio(X)	0.20	0.24	0.50	0.50	0.79	0.52
Avail Cap(c_a), veh/h	405	360	1051	1047	302	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	37.8	13.9	13.9	55.5	8.7
Incr Delay (d2), s/veh	1.1	1.6	1.7	1.7	11.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.4	8.1	8.1	2.9	6.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.5	39.4	15.6	15.7	67.1	9.5
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	169		1051			1366
Approach Delay, s/veh	38.9		15.7			13.1
Approach LOS	D		B			B

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	88.0	32.0	11.9	76.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	83.5	27.5	20.5	58.5
Max Q Clear Time (g_c+I1), s	22.8	7.5	7.8	22.6
Green Ext Time (p_c), s	12.1	0.4	0.1	7.8

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1086	58	76	1048	101	42	39	145	74	25	15
Future Volume (veh/h)	23	1086	58	76	1048	101	42	39	145	74	25	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1856	1856	1856	1870	1856	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	25	1193	64	84	1152	110	46	42	159	80	27	16
Peak Hour Factor	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.92	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	3	3	3	2	3	2	3	2	2	2
Cap, veh/h	49	1542	83	108	1583	151	76	55	210	103	195	116
Arrive On Green	0.03	0.45	0.45	0.06	0.49	0.49	0.04	0.16	0.16	0.06	0.18	0.18
Sat Flow, veh/h	1781	3403	182	1767	3252	310	1767	342	1295	1781	1101	652
Grp Volume(v), veh/h	25	618	639	84	624	638	46	0	201	80	0	43
Grp Sat Flow(s),veh/h/ln	1781	1763	1823	1767	1763	1800	1767	0	1637	1781	0	1753
Q Serve(g_s), s	0.9	20.0	20.0	3.2	19.0	19.1	1.7	0.0	8.0	3.0	0.0	1.4
Cycle Q Clear(g_c), s	0.9	20.0	20.0	3.2	19.0	19.1	1.7	0.0	8.0	3.0	0.0	1.4
Prop In Lane	1.00		0.10	1.00		0.17	1.00		0.79	1.00		0.37
Lane Grp Cap(c), veh/h	49	799	826	108	858	876	76	0	265	103	0	311
V/C Ratio(X)	0.51	0.77	0.77	0.77	0.73	0.73	0.61	0.00	0.76	0.77	0.00	0.14
Avail Cap(c_a), veh/h	476	1443	1492	269	1240	1266	472	0	662	231	0	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	15.6	15.6	31.4	13.8	13.8	31.9	0.0	27.1	31.5	0.0	23.5
Incr Delay (d2), s/veh	7.8	1.6	1.6	11.1	1.2	1.2	7.7	0.0	4.4	11.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.3	6.5	1.5	5.7	5.9	0.9	0.0	3.3	1.6	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	17.2	17.2	42.5	15.0	15.0	39.6	0.0	31.6	43.1	0.0	23.7
LnGrp LOS	D	B	B	D	B	B	D	A	C	D	A	C
Approach Vol, veh/h		1282			1346			247			123	
Approach Delay, s/veh		17.7			16.7			33.0			36.3	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	35.2	7.4	16.5	6.4	37.5	8.4	15.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.3	55.5	18.1	18.1	18.1	47.7	8.8	27.4
Max Q Clear Time (g_c+I1), s	5.2	22.0	3.7	3.4	2.9	21.1	5.0	10.0
Green Ext Time (p_c), s	0.1	8.7	0.1	0.1	0.0	8.3	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	19.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	249	19	121	157	45	9	111	217	24	62	10
Future Vol, veh/h	26	249	19	121	157	45	9	111	217	24	62	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	30	286	22	139	180	52	10	128	249	28	71	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	308	0	0	882	867	297	1030	852	206
Stage 1	-	-	-	-	-	-	357	357	-	484	484	-
Stage 2	-	-	-	-	-	-	525	510	-	546	368	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1342	-	-	1258	-	-	268	292	745	213	298	837
Stage 1	-	-	-	-	-	-	663	630	-	566	554	-
Stage 2	-	-	-	-	-	-	538	539	-	524	623	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1342	-	-	1258	-	-	188	254	745	78	259	837
Mov Cap-2 Maneuver	-	-	-	-	-	-	188	254	-	78	259	-
Stage 1	-	-	-	-	-	-	648	616	-	554	493	-
Stage 2	-	-	-	-	-	-	404	480	-	270	609	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	3.1	41.9	57.3
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	188	450	1342	-	-	1258	-	-	172
HCM Lane V/C Ratio	0.055	0.838	0.022	-	-	0.111	-	-	0.642
HCM Control Delay (s)	25.3	42.4	7.7	-	-	8.2	-	-	57.3
HCM Lane LOS	D	E	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.2	8.2	0.1	-	-	0.4	-	-	3.6

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	191	114	94	103	1	64	0	69	0	1	1
Future Vol, veh/h	0	191	114	94	103	1	64	0	69	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	215	128	106	116	1	72	0	78	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	343	0	0	609	608	279	647	672	117
Stage 1	-	-	-	-	-	-	279	279	-	329	329	-
Stage 2	-	-	-	-	-	-	330	329	-	318	343	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1478	-	-	1222	-	-	409	412	762	385	378	938
Stage 1	-	-	-	-	-	-	730	682	-	686	648	-
Stage 2	-	-	-	-	-	-	685	648	-	695	639	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1478	-	-	1222	-	-	378	374	762	321	343	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	378	374	-	321	343	-
Stage 1	-	-	-	-	-	-	730	682	-	686	588	-
Stage 2	-	-	-	-	-	-	619	588	-	624	639	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.9	14.9	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	512	1478	-	-	1222	-	-	502
HCM Lane V/C Ratio	0.292	-	-	-	0.086	-	-	0.004
HCM Control Delay (s)	14.9	0	-	-	8.2	0	-	12.2
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	1.2	0	-	-	0.3	-	-	0

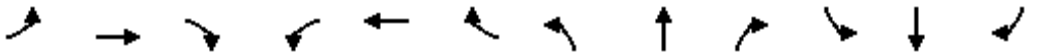
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	25	0	4	0	159	22	11	141	0
Future Vol, veh/h	0	0	0	25	0	4	0	159	22	11	141	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	27	0	4	0	171	24	12	152	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	361	371	152	359	359	183	152	0	0	195	0	0
Stage 1	176	176	-	183	183	-	-	-	-	-	-	-
Stage 2	185	195	-	176	176	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	598	562	900	600	571	865	1441	-	-	1390	-	-
Stage 1	831	757	-	823	752	-	-	-	-	-	-	-
Stage 2	821	743	-	831	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	591	557	900	596	566	865	1441	-	-	1390	-	-
Mov Cap-2 Maneuver	591	557	-	596	566	-	-	-	-	-	-	-
Stage 1	831	750	-	823	752	-	-	-	-	-	-	-
Stage 2	817	743	-	824	750	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	11.1	0	0.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1441	-	-	-	623	1390	-	-
HCM Lane V/C Ratio	-	-	-	-	0.05	0.009	-	-
HCM Control Delay (s)	0	-	-	0	11.1	7.6	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	828	366	112	663	144	473	283	200	188	191	108
Future Volume (veh/h)	91	828	366	112	663	144	473	283	200	188	191	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	900	398	122	721	157	514	308	217	204	208	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	926	785	152	966	819	115	371	315	86	647	289
Arrive On Green	0.06	0.50	0.50	0.09	0.52	0.52	0.06	0.20	0.20	0.05	0.18	0.18
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	3554	1585
Grp Volume(v), veh/h	99	900	398	122	721	157	514	308	217	204	208	117
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1777	1585
Q Serve(g_s), s	5.7	48.7	17.6	7.0	31.5	5.5	6.7	16.4	13.2	5.0	5.3	6.8
Cycle Q Clear(g_c), s	5.7	48.7	17.6	7.0	31.5	5.5	6.7	16.4	13.2	5.0	5.3	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	926	785	152	966	819	115	371	315	86	647	289
V/C Ratio(X)	0.88	0.97	0.51	0.80	0.75	0.19	4.48	0.83	0.69	2.38	0.32	0.41
Avail Cap(c_a), veh/h	113	926	785	262	966	819	115	661	560	86	1197	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	25.5	17.7	46.7	19.7	13.5	48.6	40.0	38.7	49.5	36.9	37.5
Incr Delay (d2), s/veh	48.2	23.5	2.3	9.5	5.2	0.5	1584.0	4.8	2.7	655.4	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	24.4	6.4	3.3	13.1	1.9	53.4	7.7	5.2	17.8	2.2	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.5	49.0	20.0	56.2	25.0	14.0	1632.6	44.8	41.4	704.9	37.2	38.4
LnGrp LOS	F	D	C	E	C	B	F	D	D	F	D	D
Approach Vol, veh/h		1397			1000			1039			529	
Approach Delay, s/veh		44.1			27.1			829.6			295.0	
Approach LOS		D			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	56.0	11.2	23.4	11.1	58.2	9.5	25.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.3	45.0	6.7	35.0	6.6	53.7	5.0	36.7
Max Q Clear Time (g_c+I1), s	9.0	50.7	8.7	8.8	7.7	33.5	7.0	18.4
Green Ext Time (p_c), s	0.1	0.0	0.0	1.5	0.0	4.7	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	279.1
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	193	177	108	143	40	228	571	252	39	371	36
Future Volume (veh/h)	38	193	177	108	143	40	228	571	252	39	371	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	205	188	115	152	43	243	607	268	41	395	38
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	304	279	142	542	153	274	736	624	57	889	85
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.27	0.27
Sat Flow, veh/h	1781	898	824	1781	1402	397	1781	1870	1585	1781	3277	314
Grp Volume(v), veh/h	40	0	393	115	0	195	243	607	268	41	213	220
Grp Sat Flow(s),veh/h/ln	1781	0	1722	1781	0	1799	1781	1870	1585	1781	1777	1814
Q Serve(g_s), s	2.6	0.0	22.5	7.3	0.0	8.6	15.3	33.5	14.2	2.6	11.4	11.5
Cycle Q Clear(g_c), s	2.6	0.0	22.5	7.3	0.0	8.6	15.3	33.5	14.2	2.6	11.4	11.5
Prop In Lane	1.00		0.48	1.00		0.22	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	56	0	583	142	0	695	274	736	624	57	482	492
V/C Ratio(X)	0.72	0.00	0.67	0.81	0.00	0.28	0.89	0.82	0.43	0.72	0.44	0.45
Avail Cap(c_a), veh/h	95	0	583	209	0	695	364	736	624	98	482	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	32.6	52.0	0.0	24.2	47.6	31.3	25.4	55.1	34.6	34.7
Incr Delay (d2), s/veh	15.6	0.0	6.1	13.8	0.0	1.0	18.0	10.2	2.2	16.0	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	9.9	3.7	0.0	3.7	8.0	16.3	5.5	1.4	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.7	0.0	38.7	65.8	0.0	25.2	65.6	41.5	27.6	71.1	37.6	37.6
LnGrp LOS	E	A	D	E	A	C	E	D	C	E	D	D
Approach Vol, veh/h		433			310			1118			474	
Approach Delay, s/veh		41.7			40.3			43.4			40.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.4	22.2	35.7	8.1	48.9	8.1	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	24.5	17.3	13.5	4.6	10.6	4.6	35.5
Green Ext Time (p_c), s	0.1	1.8	0.3	1.9	0.0	1.0	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	444	78	111	243	252	187	873	149	260	488	72
Future Volume (veh/h)	135	444	78	111	243	252	187	873	149	260	488	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	453	80	113	248	257	191	891	152	265	498	73
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1126	502	139	1074	479	221	1044	465	296	1194	533
Arrive On Green	0.09	0.32	0.32	0.08	0.30	0.30	0.12	0.29	0.29	0.17	0.34	0.34
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	138	453	80	113	248	257	191	891	152	265	498	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.5	12.4	4.5	7.8	6.5	16.8	13.1	29.3	9.3	18.1	13.4	4.0
Cycle Q Clear(g_c), s	9.5	12.4	4.5	7.8	6.5	16.8	13.1	29.3	9.3	18.1	13.4	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	1126	502	139	1074	479	221	1044	465	296	1194	533
V/C Ratio(X)	0.84	0.40	0.16	0.81	0.23	0.54	0.86	0.85	0.33	0.89	0.42	0.14
Avail Cap(c_a), veh/h	251	1126	502	254	1074	479	373	1274	568	466	1460	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	33.2	30.5	56.3	32.5	36.1	53.3	41.3	34.2	50.7	31.8	28.7
Incr Delay (d2), s/veh	13.7	1.1	0.7	10.8	0.5	4.3	10.4	4.9	0.4	13.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	5.2	1.8	3.8	2.7	6.9	6.3	13.1	3.5	8.9	5.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	34.3	31.2	67.1	33.0	40.3	63.8	46.3	34.6	63.6	32.0	28.8
LnGrp LOS	E	C	C	E	C	D	E	D	C	E	C	C
Approach Vol, veh/h		671			618			1234			836	
Approach Delay, s/veh		41.1			42.3			47.5			41.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	43.8	19.9	46.2	16.0	42.0	25.2	40.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.7	37.3	26.0	51.0	17.5	37.5	32.5	44.5
Max Q Clear Time (g_c+I1), s	9.8	14.4	15.1	15.4	11.5	18.8	20.1	31.3
Green Ext Time (p_c), s	0.1	2.8	0.4	3.5	0.1	2.0	0.6	5.1

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

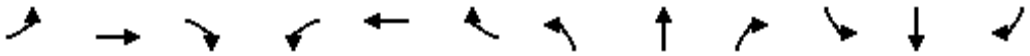
Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	10	204	39	9	132
Future Vol, veh/h	31	10	204	39	9	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	34	11	227	43	10	147

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	416	249	0	0	270	0
Stage 1	249	-	-	-	-	-
Stage 2	167	-	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.19	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.281	-
Pot Cap-1 Maneuver	580	773	-	-	1254	-
Stage 1	776	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	575	773	-	-	1254	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	838	-	-	-	-	-

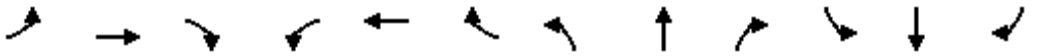
Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	613	1254	-
HCM Lane V/C Ratio	-	-	0.074	0.008	-
HCM Control Delay (s)	-	-	11.3	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	30	343	181	124	647	48	369	133	71	19	158	47
v/c Ratio	0.16	0.43	0.50	0.43	0.53	0.09	0.52	0.11	0.13	0.11	0.32	0.22
Control Delay	33.8	25.1	30.2	32.7	19.8	17.6	27.7	19.2	20.5	34.0	30.9	32.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	25.1	30.2	32.7	19.8	17.6	27.7	19.2	20.5	34.0	30.9	32.1
Queue Length 50th (ft)	11	62	64	45	86	10	67	16	17	7	30	17
Queue Length 95th (ft)	41	121	147	112	206	43	132	51	63	30	71	55
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	442	2195	982	442	2195	982	1078	1625	727	556	1625	727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.16	0.18	0.28	0.29	0.05	0.34	0.08	0.10	0.03	0.10	0.06

Intersection Summary



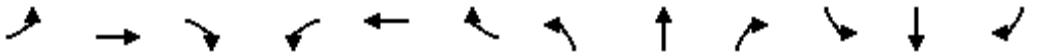
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	309	163	112	582	43	332	120	64	17	142	42
Future Volume (veh/h)	27	309	163	112	582	43	332	120	64	17	142	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	30	343	181	124	647	48	369	133	71	19	158	47
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	60	824	367	162	1026	458	563	876	391	41	378	168
Arrive On Green	0.03	0.24	0.24	0.09	0.30	0.30	0.17	0.25	0.25	0.02	0.11	0.11
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	3374	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	30	343	181	124	647	48	369	133	71	19	158	47
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1687	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.8	3.8	4.6	3.2	7.4	1.0	4.7	1.4	1.6	0.5	1.9	1.3
Cycle Q Clear(g_c), s	0.8	3.8	4.6	3.2	7.4	1.0	4.7	1.4	1.6	0.5	1.9	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	824	367	162	1026	458	563	876	391	41	378	168
V/C Ratio(X)	0.50	0.42	0.49	0.77	0.63	0.10	0.65	0.15	0.18	0.47	0.42	0.28
Avail Cap(c_a), veh/h	589	2921	1303	589	2921	1303	1438	2162	964	741	2162	964
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	14.8	15.1	20.3	13.9	11.7	17.8	13.3	13.4	22.0	19.0	18.7
Incr Delay (d2), s/veh	6.2	0.3	1.0	7.3	0.6	0.1	1.3	0.1	0.2	8.1	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.1	1.4	1.3	2.1	0.3	1.6	0.4	0.5	0.3	0.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	15.1	16.1	27.6	14.6	11.8	19.1	13.4	13.6	30.1	19.8	19.6
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	B	B
Approach Vol, veh/h		554			819			573			224	
Approach Delay, s/veh		16.1			16.4			17.1			20.6	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	15.4	12.1	9.5	6.1	18.0	5.6	16.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.2	6.6	6.7	3.9	2.8	9.4	2.5	3.6
Green Ext Time (p_c), s	0.2	2.5	1.0	1.0	0.0	4.1	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	173	153	77	531	92	88	485	32
v/c Ratio	0.09	0.46	0.34	0.23	0.48	0.19	0.26	0.43	0.06
Control Delay	15.9	20.7	18.1	22.2	15.6	15.2	22.1	14.9	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	20.7	18.1	22.2	15.6	15.2	22.1	14.9	14.4
Queue Length 50th (ft)	8	41	35	19	63	19	22	55	6
Queue Length 95th (ft)	26	91	78	53	110	49	59	100	22
Internal Link Dist (ft)	897		1147		1749			1910	
Turn Bay Length (ft)		200		300		205	200		200
Base Capacity (vph)	1120	957	1145	519	2600	1163	654	2713	1214
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.18	0.13	0.15	0.20	0.08	0.13	0.18	0.03

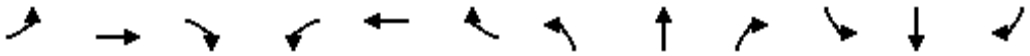
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	2	23	135	21	98	60	414	72	69	378	25
Future Volume (veh/h)	5	2	23	135	21	98	60	414	72	69	378	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	6	3	29	173	27	126	77	531	92	88	485	32
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	147	57	251	508	59	275	133	1033	461	146	1058	472
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	99	271	1191	1344	281	1310	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	38	0	0	173	0	153	77	531	92	88	485	32
Grp Sat Flow(s),veh/h/ln	1561	0	0	1344	0	1590	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.0	0.0	0.0	3.0	0.0	2.8	1.4	4.2	1.5	1.6	3.7	0.5
Cycle Q Clear(g_c), s	0.6	0.0	0.0	3.6	0.0	2.8	1.4	4.2	1.5	1.6	3.7	0.5
Prop In Lane	0.16		0.76	1.00		0.82	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	454	0	0	508	0	335	133	1033	461	146	1058	472
V/C Ratio(X)	0.08	0.00	0.00	0.34	0.00	0.46	0.58	0.51	0.20	0.60	0.46	0.07
Avail Cap(c_a), veh/h	1475	0	0	1424	0	1418	605	3409	1520	762	3723	1661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	11.7	0.0	11.4	14.8	9.6	8.7	14.6	9.3	8.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.4	0.0	1.0	3.9	0.4	0.2	4.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.8	0.0	0.7	0.5	1.0	0.3	0.6	0.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.6	0.0	0.0	12.1	0.0	12.4	18.7	10.0	8.9	18.6	9.6	8.2
LnGrp LOS	B	A	A	B	A	B	B	B	A	B	A	A
Approach Vol, veh/h		38			326			700			605	
Approach Delay, s/veh		10.6			12.2			10.8			10.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.5	7.0	14.6		11.5	7.3	14.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	11.5	35.5		29.5	14.5	32.5				
Max Q Clear Time (g_c+I1), s		2.6	3.4	5.7		5.6	3.6	6.2				
Green Ext Time (p_c), s		0.1	0.1	3.2		1.3	0.1	3.6				

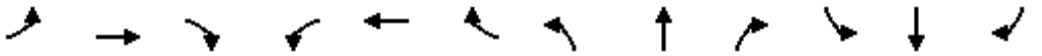
Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	371	99	233	767	214	165	314	185	225	406	171
v/c Ratio	0.76	0.27	0.15	0.92	0.54	0.28	0.49	0.61	0.48	0.89	0.60	0.39
Control Delay	64.7	22.3	5.1	82.9	25.2	4.0	48.6	45.5	10.0	77.4	41.4	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.7	22.3	5.1	82.9	25.2	4.0	48.6	45.5	10.0	77.4	41.4	8.2
Queue Length 50th (ft)	106	83	0	148	193	0	52	100	0	142	126	0
Queue Length 95th (ft)	#175	111	24	#253	232	29	77	125	37	#243	153	35
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	233	1370	673	254	1426	766	395	1195	657	254	1296	688
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.27	0.15	0.92	0.54	0.28	0.42	0.26	0.28	0.89	0.31	0.25

Intersection Summary

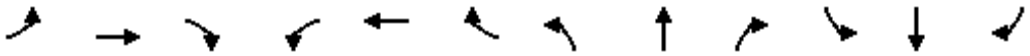
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	293	78	184	606	169	130	248	146	178	321	135
Future Volume (veh/h)	135	293	78	184	606	169	130	248	146	178	321	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	371	99	233	767	214	165	314	185	225	406	171
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	1363	608	254	1466	654	234	549	245	254	815	363
Arrive On Green	0.11	0.38	0.38	0.14	0.41	0.41	0.07	0.15	0.15	0.14	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	171	371	99	233	767	214	165	314	185	225	406	171
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.6	7.3	4.2	13.1	16.4	9.3	4.8	8.3	11.4	12.6	10.1	9.5
Cycle Q Clear(g_c), s	9.6	7.3	4.2	13.1	16.4	9.3	4.8	8.3	11.4	12.6	10.1	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	1363	608	254	1466	654	234	549	245	254	815	363
V/C Ratio(X)	0.85	0.27	0.16	0.92	0.52	0.33	0.71	0.57	0.76	0.89	0.50	0.47
Avail Cap(c_a), veh/h	233	1363	608	254	1466	654	394	1188	530	254	1289	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	21.6	20.6	43.0	22.4	20.3	46.4	39.9	41.2	42.8	34.1	33.9
Incr Delay (d2), s/veh	21.6	0.5	0.6	35.2	1.3	1.3	3.9	0.9	4.7	28.9	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	2.9	1.6	7.9	6.4	3.5	2.1	3.6	4.6	7.4	4.2	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.8	22.1	21.2	78.2	23.7	21.6	50.3	40.8	45.9	71.7	34.6	34.8
LnGrp LOS	E	C	C	E	C	C	D	D	D	E	C	C
Approach Vol, veh/h		641			1214			664			802	
Approach Delay, s/veh		33.6			33.8			44.6			45.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	43.5	11.4	27.8	16.0	46.5	19.0	20.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	39.0	11.6	36.9	13.3	40.2	14.5	34.0
Max Q Clear Time (g_c+I1), s	15.1	9.3	6.8	12.1	11.6	18.4	14.6	13.4
Green Ext Time (p_c), s	0.0	2.4	0.2	3.0	0.1	5.3	0.0	2.3

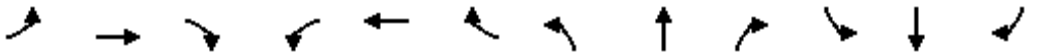
Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	696	341	198	425	211	209	395	188	125	335	51
v/c Ratio	0.54	0.67	0.73	0.69	0.36	0.40	0.49	0.58	0.62	0.53	0.47	0.16
Control Delay	51.0	32.3	40.3	54.0	25.7	28.6	44.4	38.3	45.4	48.9	35.1	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	32.3	40.3	54.0	25.7	28.6	44.4	38.3	45.4	48.9	35.1	33.5
Queue Length 50th (ft)	66	181	173	107	94	91	58	109	100	68	89	24
Queue Length 95th (ft)	153	302	334	#286	177	199	116	188	202	150	155	64
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	314	1561	698	314	1561	698	767	1155	517	395	1170	523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.45	0.49	0.63	0.27	0.30	0.27	0.34	0.36	0.32	0.29	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	633	310	180	387	192	190	359	171	114	305	46
Future Volume (veh/h)	111	633	310	180	387	192	190	359	171	114	305	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	122	696	341	198	425	211	209	395	188	125	335	51
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	158	1082	483	246	1257	561	327	651	290	163	641	286
Arrive On Green	0.09	0.31	0.31	0.14	0.36	0.36	0.10	0.18	0.18	0.09	0.18	0.18
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	3428	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	122	696	341	198	425	211	209	395	188	125	335	51
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1714	1763	1572	1767	1763	1572
Q Serve(g_s), s	4.4	11.1	12.5	7.1	5.7	6.5	3.8	6.7	7.2	4.5	5.6	1.8
Cycle Q Clear(g_c), s	4.4	11.1	12.5	7.1	5.7	6.5	3.8	6.7	7.2	4.5	5.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	1082	483	246	1257	561	327	651	290	163	641	286
V/C Ratio(X)	0.77	0.64	0.71	0.80	0.34	0.38	0.64	0.61	0.65	0.77	0.52	0.18
Avail Cap(c_a), veh/h	421	2086	930	421	2086	930	1027	1544	689	530	1544	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	19.5	20.0	27.1	15.3	15.6	28.4	24.4	24.6	28.8	24.1	22.5
Incr Delay (d2), s/veh	7.6	0.6	1.9	6.1	0.2	0.4	2.1	0.9	2.4	7.3	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.8	4.2	3.0	1.9	2.0	1.5	2.6	2.6	2.1	2.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	20.1	21.9	33.2	15.5	16.0	30.4	25.3	27.0	36.1	24.7	22.8
LnGrp LOS	D	C	C	C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		1159			834			792			511	
Approach Delay, s/veh		22.4			19.8			27.0			27.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	24.5	10.7	16.3	10.3	27.7	10.5	16.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	9.1	14.5	5.8	7.6	6.4	8.5	6.5	9.2
Green Ext Time (p_c), s	0.3	5.5	0.5	2.0	0.2	3.2	0.2	2.8

Intersection Summary	
HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

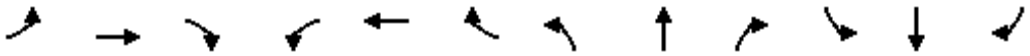
Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	237	91	130	47	784	133	161	963	5
v/c Ratio	0.64	0.37	0.33	0.23	0.67	0.26	0.51	0.57	0.01
Control Delay	32.3	27.1	24.5	34.3	22.7	19.2	33.0	15.8	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	27.1	24.5	34.3	22.7	19.2	33.0	15.8	13.2
Queue Length 50th (ft)	80	28	40	17	130	36	55	151	1
Queue Length 95th (ft)	150	67	85	48	202	79	115	218	7
Internal Link Dist (ft)	897		1147		1749			1910	
Turn Bay Length (ft)		200		300		205	200		200
Base Capacity (vph)	637	426	675	298	1788	800	525	2242	1003
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.21	0.19	0.16	0.44	0.17	0.31	0.43	0.00

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	36	88	68	2	95	35	588	100	121	722	4
Future Volume (veh/h)	54	36	88	68	2	95	35	588	100	121	722	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	72	48	117	91	3	127	47	784	133	161	963	5
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	173	94	160	413	8	343	86	1226	547	212	1478	659
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.35	0.35	0.12	0.43	0.43
Sat Flow, veh/h	308	418	708	1192	36	1517	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	237	0	0	91	0	130	47	784	133	161	963	5
Grp Sat Flow(s),veh/h/ln	1434	0	0	1192	0	1553	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.8	0.0	0.0	0.0	0.0	3.2	1.2	8.5	2.7	4.0	10.0	0.1
Cycle Q Clear(g_c), s	7.0	0.0	0.0	3.2	0.0	3.2	1.2	8.5	2.7	4.0	10.0	0.1
Prop In Lane	0.30		0.49	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	428	0	0	413	0	351	86	1226	547	212	1478	659
V/C Ratio(X)	0.55	0.00	0.00	0.22	0.00	0.37	0.55	0.64	0.24	0.76	0.65	0.01
Avail Cap(c_a), veh/h	961	0	0	843	0	911	404	2418	1079	712	3033	1353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	0.0	14.8	0.0	14.8	21.0	12.2	10.3	19.2	10.3	7.5
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.3	0.0	0.7	5.4	0.6	0.2	5.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	0.6	0.0	0.9	0.5	2.4	0.7	1.6	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	0.0	15.0	0.0	15.4	26.3	12.8	10.6	24.7	10.8	7.5
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	A
Approach Vol, veh/h		237			221			964			1129	
Approach Delay, s/veh		17.3			15.3			13.1			12.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.7	6.7	23.8		14.7	10.0	20.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	39.5		26.5	18.5	31.5				
Max Q Clear Time (g_c+I1), s		9.0	3.2	12.0		5.2	6.0	10.5				
Green Ext Time (p_c), s		1.2	0.0	7.0		1.0	0.3	5.4				

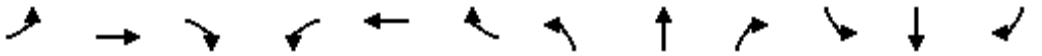
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	63	738	291	115	604	92	392	232	193	38	75	90
v/c Ratio	0.38	0.48	0.34	0.59	0.36	0.11	0.67	0.30	0.39	0.26	0.26	0.35
Control Delay	45.7	19.9	3.4	51.8	17.0	1.4	41.3	32.4	7.8	43.8	41.8	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	19.9	3.4	51.8	17.0	1.4	41.3	32.4	7.8	43.8	41.8	6.4
Queue Length 50th (ft)	34	155	0	63	116	0	108	62	0	21	21	0
Queue Length 95th (ft)	75	220	47	#125	175	12	159	100	58	52	44	18
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	207	1545	854	207	1695	828	672	1663	846	207	1386	702
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.48	0.34	0.56	0.36	0.11	0.58	0.14	0.23	0.18	0.05	0.13

Intersection Summary

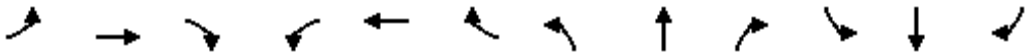
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	679	268	106	556	85	361	213	178	35	69	83
Future Volume (veh/h)	58	679	268	106	556	85	361	213	178	35	69	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	738	291	115	604	92	392	232	193	38	75	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1673	746	146	1800	803	494	692	309	63	309	138
Arrive On Green	0.05	0.47	0.47	0.08	0.51	0.51	0.14	0.19	0.19	0.04	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	63	738	291	115	604	92	392	232	193	38	75	90
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.9	11.5	9.9	5.2	8.4	2.5	9.1	4.7	9.2	1.7	1.6	4.6
Cycle Q Clear(g_c), s	2.9	11.5	9.9	5.2	8.4	2.5	9.1	4.7	9.2	1.7	1.6	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	1673	746	146	1800	803	494	692	309	63	309	138
V/C Ratio(X)	0.77	0.44	0.39	0.79	0.34	0.11	0.79	0.34	0.63	0.61	0.24	0.65
Avail Cap(c_a), veh/h	226	1673	746	226	1800	803	730	1802	804	226	1501	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	14.6	14.2	37.3	12.2	10.7	34.3	28.7	30.6	39.4	35.3	36.6
Incr Delay (d2), s/veh	13.7	0.8	1.5	9.6	0.5	0.3	3.7	0.3	2.1	9.1	0.4	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.0	3.4	2.5	2.8	0.8	3.8	1.9	3.5	0.9	0.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	15.5	15.7	46.9	12.7	11.0	38.0	29.0	32.7	48.5	35.7	41.7
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	D	D
Approach Vol, veh/h		1092			811			817			203	
Approach Delay, s/veh		17.7			17.3			34.2			40.8	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	43.5	16.3	11.7	8.3	46.5	7.4	20.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	39.0	17.5	35.0	10.5	39.0	10.5	42.0
Max Q Clear Time (g_c+I1), s	7.2	13.5	11.1	6.6	4.9	10.4	3.7	11.2
Green Ext Time (p_c), s	0.1	5.7	0.8	0.7	0.0	4.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	70	334	196	126	710	56	391	239	72	64	210	32
v/c Ratio	0.33	0.35	0.46	0.47	0.68	0.12	0.58	0.25	0.17	0.31	0.41	0.14
Control Delay	38.9	24.2	28.5	39.2	27.2	21.7	33.0	27.0	28.5	39.1	35.0	34.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	24.2	28.5	39.2	27.2	21.7	33.0	27.0	28.5	39.1	35.0	34.5
Queue Length 50th (ft)	30	65	76	54	151	19	85	48	27	28	47	13
Queue Length 95th (ft)	82	121	161	130	255	53	163	101	76	78	99	45
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	394	1961	877	394	1961	877	963	1452	649	496	1452	649
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.17	0.22	0.32	0.36	0.06	0.41	0.16	0.11	0.13	0.14	0.05

Intersection Summary

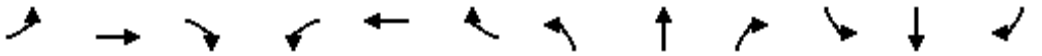
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	301	176	113	639	50	352	215	65	58	189	29
Future Volume (veh/h)	63	301	176	113	639	50	352	215	65	58	189	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	70	334	196	126	710	56	391	239	72	64	210	32
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	106	945	422	164	1061	473	565	793	354	101	413	184
Arrive On Green	0.06	0.27	0.27	0.09	0.31	0.31	0.17	0.23	0.23	0.06	0.12	0.12
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	3374	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	70	334	196	126	710	56	391	239	72	64	210	32
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1687	1735	1547	1739	1735	1547
Q Serve(g_s), s	2.0	4.0	5.5	3.7	9.3	1.4	5.7	3.0	2.0	1.9	2.9	1.0
Cycle Q Clear(g_c), s	2.0	4.0	5.5	3.7	9.3	1.4	5.7	3.0	2.0	1.9	2.9	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	945	422	164	1061	473	565	793	354	101	413	184
V/C Ratio(X)	0.66	0.35	0.46	0.77	0.67	0.12	0.69	0.30	0.20	0.63	0.51	0.17
Avail Cap(c_a), veh/h	519	2571	1147	519	2571	1147	1267	1904	849	653	1904	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	15.2	15.7	23.0	15.7	13.0	20.4	16.6	16.2	23.9	21.5	20.6
Incr Delay (d2), s/veh	6.7	0.2	0.8	7.3	0.7	0.1	1.5	0.2	0.3	6.4	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.2	1.6	1.6	2.8	0.4	2.0	1.0	0.6	0.8	1.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	15.4	16.5	30.3	16.5	13.1	21.9	16.8	16.5	30.4	22.4	21.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		600			892			702			306	
Approach Delay, s/veh		17.6			18.2			19.6			23.9	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	18.7	13.2	10.7	7.7	20.4	7.5	16.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	5.7	7.5	7.7	4.9	4.0	11.3	3.9	5.0
Green Ext Time (p_c), s	0.2	2.5	1.1	1.2	0.1	4.6	0.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	177	179	79	653	94	101	549	33
v/c Ratio	0.10	0.51	0.43	0.27	0.57	0.18	0.32	0.40	0.05
Control Delay	18.2	24.8	22.2	26.7	18.0	16.0	26.1	14.3	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	24.8	22.2	26.7	18.0	16.0	26.1	14.3	13.9
Queue Length 50th (ft)	9	46	45	21	85	20	27	67	7
Queue Length 95th (ft)	30	105	101	62	148	54	73	118	23
Internal Link Dist (ft)	897		1147		1749			1910	
Turn Bay Length (ft)		200		300		205	200		200
Base Capacity (vph)	963	823	983	445	2288	1023	561	2436	1089
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.22	0.18	0.18	0.29	0.09	0.18	0.23	0.03

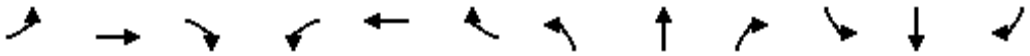
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	2	24	138	22	118	62	509	73	79	428	26
Future Volume (veh/h)	5	2	24	138	22	118	62	509	73	79	428	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	6	3	31	177	28	151	79	653	94	101	549	33
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	132	55	252	486	52	279	131	1157	516	153	1199	535
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.33	0.33	0.09	0.35	0.35
Sat Flow, veh/h	90	261	1208	1342	248	1337	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	40	0	0	177	0	179	79	653	94	101	549	33
Grp Sat Flow(s),veh/h/ln	1559	0	0	1342	0	1585	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.0	0.0	0.0	3.4	0.0	3.7	1.6	5.6	1.6	2.1	4.5	0.5
Cycle Q Clear(g_c), s	0.7	0.0	0.0	4.1	0.0	3.7	1.6	5.6	1.6	2.1	4.5	0.5
Prop In Lane	0.15		0.77	1.00		0.84	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	0	0	486	0	331	131	1157	516	153	1199	535
V/C Ratio(X)	0.09	0.00	0.00	0.36	0.00	0.54	0.60	0.56	0.18	0.66	0.46	0.06
Avail Cap(c_a), veh/h	1335	0	0	1290	0	1282	548	3090	1378	691	3375	1505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	0.0	13.0	0.0	12.9	16.3	10.0	8.6	16.1	9.3	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	1.4	4.4	0.4	0.2	4.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.0	0.0	1.0	0.6	1.4	0.3	0.8	1.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	0.0	0.0	13.4	0.0	14.2	20.7	10.4	8.8	20.9	9.6	8.0
LnGrp LOS	B	A	A	B	A	B	C	B	A	C	A	A
Approach Vol, veh/h		40			356			826			683	
Approach Delay, s/veh		11.8			13.8			11.2			11.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.1	7.3	17.1		12.1	7.7	16.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	11.5	35.5		29.5	14.5	32.5				
Max Q Clear Time (g_c+I1), s		2.7	3.6	6.5		6.1	4.1	7.6				
Green Ext Time (p_c), s		0.1	0.1	3.6		1.5	0.1	4.5				

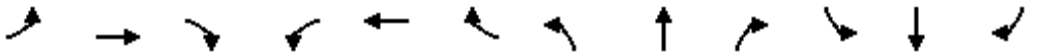
Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	180	403	104	238	830	218	175	319	189	229	414	182
v/c Ratio	0.78	0.29	0.15	0.94	0.59	0.29	0.51	0.61	0.48	0.90	0.61	0.41
Control Delay	66.6	22.7	5.1	87.1	26.4	4.1	49.0	45.5	9.9	80.4	41.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.6	22.7	5.1	87.1	26.4	4.1	49.0	45.5	9.9	80.4	41.8	8.2
Queue Length 50th (ft)	113	91	0	152	214	0	55	102	0	146	130	0
Queue Length 95th (ft)	#189	122	25	#263	255	29	81	126	37	#249	156	36
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	233	1368	676	254	1413	763	394	1193	659	254	1295	694
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.29	0.15	0.94	0.59	0.29	0.44	0.27	0.29	0.90	0.32	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	318	82	188	656	172	138	252	149	181	327	144
Future Volume (veh/h)	142	318	82	188	656	172	138	252	149	181	327	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	403	104	238	830	218	175	319	189	229	414	182
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	1359	606	253	1443	643	244	558	249	253	812	362
Arrive On Green	0.12	0.38	0.38	0.14	0.41	0.41	0.07	0.16	0.16	0.14	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	180	403	104	238	830	218	175	319	189	229	414	182
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	10.1	8.1	4.4	13.5	18.5	9.7	5.1	8.5	11.6	12.9	10.4	10.2
Cycle Q Clear(g_c), s	10.1	8.1	4.4	13.5	18.5	9.7	5.1	8.5	11.6	12.9	10.4	10.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	1359	606	253	1443	643	244	558	249	253	812	362
V/C Ratio(X)	0.85	0.30	0.17	0.94	0.58	0.34	0.72	0.57	0.76	0.90	0.51	0.50
Avail Cap(c_a), veh/h	232	1359	606	253	1443	643	393	1184	528	253	1285	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	22.0	20.8	43.3	23.5	20.9	46.4	39.8	41.2	43.1	34.4	34.3
Incr Delay (d2), s/veh	23.6	0.6	0.6	40.4	1.7	1.4	3.9	0.9	4.7	32.6	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	3.2	1.7	8.4	7.3	3.6	2.2	3.6	4.7	7.7	4.3	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	22.5	21.4	83.7	25.2	22.3	50.3	40.8	45.9	75.6	34.9	35.4
LnGrp LOS	E	C	C	F	C	C	D	D	D	E	C	D
Approach Vol, veh/h		687			1286			683			825	
Approach Delay, s/veh		34.2			35.5			44.6			46.3	
Approach LOS		C			D			D			D	

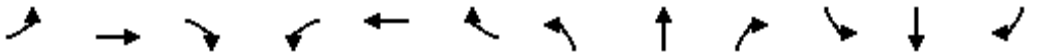
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	43.5	11.7	27.8	16.6	45.9	19.0	20.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	39.0	11.6	36.9	13.3	40.2	14.5	34.0
Max Q Clear Time (g_c+I1), s	15.5	10.1	7.1	12.4	12.1	20.5	14.9	13.6
Green Ext Time (p_c), s	0.0	2.6	0.2	3.1	0.1	5.6	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	137	309	284	273	187	441	135	51	660	84
v/c Ratio	0.54	0.24	0.47	0.87	0.35	0.89	0.38	0.22	0.60	0.79	0.16
Control Delay	67.9	32.6	9.7	72.8	23.7	91.2	32.9	6.0	84.0	50.3	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.9	32.6	9.7	72.8	23.7	91.2	32.9	6.0	84.0	50.3	0.7
Queue Length 50th (ft)	56	80	31	213	136	145	142	0	39	254	0
Queue Length 95th (ft)	102	127	94	#324	195	#262	181	40	#92	307	0
Internal Link Dist (ft)		893			833		2596			2597	
Turn Bay Length (ft)	150		150	150		215		150	230		150
Base Capacity (vph)	154	571	661	354	788	212	1153	607	85	839	510
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.24	0.47	0.80	0.35	0.88	0.38	0.22	0.60	0.79	0.16

Intersection Summary

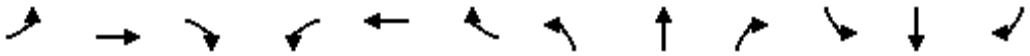
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	118	266	244	183	52	161	379	116	44	568	72
Future Volume (veh/h)	64	118	266	244	183	52	161	379	116	44	568	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	137	309	284	213	60	187	441	135	51	660	84
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	580	492	313	607	171	214	1148	512	66	852	380
Arrive On Green	0.05	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1404	395	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	74	137	309	284	0	273	187	441	135	51	660	84
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1799	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.8	6.4	19.5	18.3	0.0	11.8	12.0	11.2	7.4	3.3	20.2	5.0
Cycle Q Clear(g_c), s	4.8	6.4	19.5	18.3	0.0	11.8	12.0	11.2	7.4	3.3	20.2	5.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	580	492	313	0	778	214	1148	512	66	852	380
V/C Ratio(X)	0.78	0.24	0.63	0.91	0.00	0.35	0.87	0.38	0.26	0.78	0.77	0.22
Avail Cap(c_a), veh/h	157	580	492	360	0	778	217	1148	512	87	852	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	30.0	34.5	47.2	0.0	22.1	50.5	30.5	29.2	55.7	41.4	35.6
Incr Delay (d2), s/veh	13.0	1.0	6.0	23.9	0.0	1.2	30.0	1.0	1.3	26.6	6.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.9	8.0	9.9	0.0	5.0	7.0	4.8	2.9	1.9	9.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	30.9	40.5	71.1	0.0	23.4	80.5	31.5	30.5	82.4	48.2	37.0
LnGrp LOS	E	C	D	E	A	C	F	C	C	F	D	D
Approach Vol, veh/h		520			557			763			795	
Approach Delay, s/veh		41.8			47.7			43.3			49.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	40.7	18.5	32.5	10.7	55.0	8.8	42.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	20.3	21.5	14.0	22.2	6.8	13.8	5.3	13.2
Green Ext Time (p_c), s	0.3	1.5	0.0	2.1	0.0	1.5	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	45.7
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	713	346	198	455	215	226	436	190	174	448	49
v/c Ratio	0.62	0.69	0.75	0.72	0.40	0.43	0.52	0.63	0.62	0.65	0.57	0.14
Control Delay	55.5	34.3	42.8	58.3	27.9	30.8	46.5	41.1	46.8	53.0	37.2	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	34.3	42.8	58.3	27.9	30.8	46.5	41.1	46.8	53.0	37.2	33.4
Queue Length 50th (ft)	83	200	189	116	113	102	67	130	108	101	128	24
Queue Length 95th (ft)	176	314	345	#290	192	204	124	209	205	204	208	62
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	297	1480	662	297	1480	662	727	1096	490	375	1111	497
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.48	0.52	0.67	0.31	0.32	0.31	0.40	0.39	0.46	0.40	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	649	315	180	414	196	206	397	173	158	408	45
Future Volume (veh/h)	129	649	315	180	414	196	206	397	173	158	408	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	142	713	346	198	455	215	226	436	190	174	448	49
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	181	1065	475	243	1188	530	337	653	291	219	743	332
Arrive On Green	0.10	0.30	0.30	0.14	0.34	0.34	0.10	0.19	0.19	0.12	0.21	0.21
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	3428	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	142	713	346	198	455	215	226	436	190	174	448	49
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1714	1763	1572	1767	1763	1572
Q Serve(g_s), s	5.6	12.7	14.1	7.8	7.0	7.5	4.6	8.2	8.0	6.9	8.2	1.8
Cycle Q Clear(g_c), s	5.6	12.7	14.1	7.8	7.0	7.5	4.6	8.2	8.0	6.9	8.2	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	1065	475	243	1188	530	337	653	291	219	743	332
V/C Ratio(X)	0.78	0.67	0.73	0.82	0.38	0.41	0.67	0.67	0.65	0.79	0.60	0.15
Avail Cap(c_a), veh/h	383	1896	845	383	1896	845	934	1403	626	481	1403	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	21.9	22.4	30.0	18.1	18.2	31.2	27.1	27.0	30.5	25.5	23.0
Incr Delay (d2), s/veh	7.3	0.7	2.2	7.3	0.2	0.5	2.3	1.2	2.5	6.4	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.5	4.9	3.4	2.4	2.5	1.8	3.3	2.9	3.1	3.2	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	22.6	24.5	37.3	18.3	18.7	33.5	28.3	29.5	36.9	26.3	23.2
LnGrp LOS	D	C	C	D	B	B	C	C	C	D	C	C
Approach Vol, veh/h		1201			868			852			671	
Approach Delay, s/veh		25.0			22.7			29.9			28.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	26.1	11.5	19.6	11.8	28.6	13.4	17.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	9.8	16.1	6.6	10.2	7.6	9.5	8.9	10.2
Green Ext Time (p_c), s	0.2	5.5	0.6	2.6	0.2	3.4	0.3	3.0

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

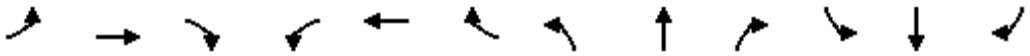
Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	242	92	142	48	847	136	185	1085	5
v/c Ratio	0.67	0.39	0.37	0.25	0.71	0.25	0.57	0.62	0.01
Control Delay	34.6	29.1	26.3	36.3	24.0	19.5	35.6	16.7	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	29.1	26.3	36.3	24.0	19.5	35.6	16.7	13.2
Queue Length 50th (ft)	91	32	49	19	154	39	71	185	1
Queue Length 95th (ft)	153	68	92	48	221	80	130	253	7
Internal Link Dist (ft)	897		1147		1749			1910	
Turn Bay Length (ft)		200		300		205	200		200
Base Capacity (vph)	600	391	638	281	1691	756	496	2121	949
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.24	0.22	0.17	0.50	0.18	0.37	0.51	0.01

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	37	90	69	2	104	36	635	102	139	814	4
Future Volume (veh/h)	55	37	90	69	2	104	36	635	102	139	814	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	73	49	120	92	3	139	48	847	136	185	1085	5
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	159	93	158	375	8	349	84	1243	555	257	1587	708
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.36	0.36	0.15	0.46	0.46
Sat Flow, veh/h	294	404	687	1187	33	1520	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	242	0	0	92	0	142	48	847	136	185	1085	5
Grp Sat Flow(s),veh/h/ln	1385	0	0	1187	0	1552	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	4.6	0.0	0.0	0.0	0.0	4.0	1.4	10.6	3.2	5.2	12.6	0.1
Cycle Q Clear(g_c), s	8.6	0.0	0.0	4.2	0.0	4.0	1.4	10.6	3.2	5.2	12.6	0.1
Prop In Lane	0.30		0.50	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	410	0	0	375	0	356	84	1243	555	257	1587	708
V/C Ratio(X)	0.59	0.00	0.00	0.25	0.00	0.40	0.57	0.68	0.25	0.72	0.68	0.01
Avail Cap(c_a), veh/h	836	0	0	719	0	806	358	2141	955	630	2685	1197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	16.8	0.0	16.7	23.8	13.9	11.5	20.8	10.9	7.5
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.3	0.0	0.7	6.0	0.7	0.2	3.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	0.8	0.0	1.2	0.6	3.2	0.9	2.0	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	0.0	0.0	17.1	0.0	17.4	29.7	14.6	11.7	24.6	11.5	7.5
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	A
Approach Vol, veh/h		242			234			1031			1275	
Approach Delay, s/veh		19.8			17.3			14.9			13.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.2	7.0	27.9		16.2	12.0	22.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	39.5		26.5	18.5	31.5				
Max Q Clear Time (g_c+I1), s		10.6	3.4	14.6		6.2	7.2	12.6				
Green Ext Time (p_c), s		1.2	0.0	7.9		1.0	0.3	5.7				

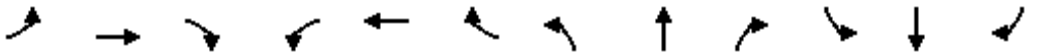
Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	70	789	299	117	629	93	396	235	197	38	76	93
v/c Ratio	0.41	0.51	0.35	0.59	0.37	0.11	0.68	0.30	0.39	0.26	0.26	0.37
Control Delay	46.5	20.5	3.4	52.1	17.4	1.5	41.5	32.4	7.7	43.9	41.8	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	20.5	3.4	52.1	17.4	1.5	41.5	32.4	7.7	43.9	41.8	7.0
Queue Length 50th (ft)	38	170	0	65	123	0	110	63	0	21	22	0
Queue Length 95th (ft)	82	238	48	#132	184	13	161	101	58	52	44	20
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	207	1540	857	207	1685	825	670	1659	846	207	1382	701
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.51	0.35	0.57	0.37	0.11	0.59	0.14	0.23	0.18	0.05	0.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



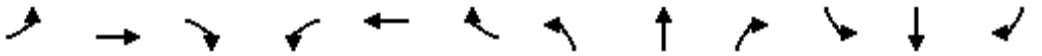
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	726	275	108	579	86	364	216	181	35	70	86
Future Volume (veh/h)	64	726	275	108	579	86	364	216	181	35	70	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	789	299	117	629	93	396	235	197	38	76	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	1663	742	148	1778	793	497	702	313	63	316	141
Arrive On Green	0.05	0.47	0.47	0.08	0.50	0.50	0.14	0.20	0.20	0.04	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	70	789	299	117	629	93	396	235	197	38	76	93
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.2	12.7	10.3	5.4	9.0	2.6	9.2	4.7	9.5	1.8	1.7	4.7
Cycle Q Clear(g_c), s	3.2	12.7	10.3	5.4	9.0	2.6	9.2	4.7	9.5	1.8	1.7	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	1663	742	148	1778	793	497	702	313	63	316	141
V/C Ratio(X)	0.77	0.47	0.40	0.79	0.35	0.12	0.80	0.33	0.63	0.61	0.24	0.66
Avail Cap(c_a), veh/h	224	1663	742	224	1778	793	726	1791	799	224	1493	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	15.2	14.5	37.5	12.6	11.0	34.5	28.7	30.6	39.6	35.3	36.7
Incr Delay (d2), s/veh	13.0	1.0	1.6	10.2	0.6	0.3	3.9	0.3	2.1	9.2	0.4	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.4	3.6	2.6	3.0	0.9	3.9	1.9	3.6	0.9	0.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	16.1	16.2	47.7	13.2	11.3	38.4	29.0	32.7	48.8	35.7	41.9
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	D	D
Approach Vol, veh/h		1158			839			828			207	
Approach Delay, s/veh		18.3			17.8			34.4			40.9	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	43.5	16.5	11.9	8.7	46.2	7.4	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	39.0	17.5	35.0	10.5	39.0	10.5	42.0
Max Q Clear Time (g_c+I1), s	7.4	14.7	11.2	6.7	5.2	11.0	3.8	11.5
Green Ext Time (p_c), s	0.1	6.0	0.8	0.7	0.0	4.1	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	36	157	151	111	182	232	528	259	36	337	33
v/c Ratio	0.39	0.26	0.24	0.63	0.24	0.78	0.37	0.33	0.38	0.38	0.06
Control Delay	67.5	31.4	3.6	66.7	23.7	64.4	26.0	4.2	66.5	38.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	31.4	3.6	66.7	23.7	64.4	26.0	4.2	66.5	38.2	0.2
Queue Length 50th (ft)	28	91	0	83	91	173	156	0	28	113	0
Queue Length 95th (ft)	64	149	33	144	149	257	204	54	64	162	0
Internal Link Dist (ft)		893			833		2596			2597	
Turn Bay Length (ft)	150		150	150		215		150	230		150
Base Capacity (vph)	94	605	633	209	750	363	1426	792	97	883	528
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.26	0.24	0.53	0.24	0.64	0.37	0.33	0.37	0.38	0.06

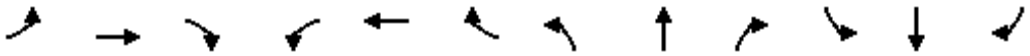
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	148	142	104	137	34	218	496	243	34	317	31
Future Volume (veh/h)	34	148	142	104	137	34	218	496	243	34	317	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	157	151	111	146	36	232	528	259	36	337	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	637	540	138	562	139	264	1404	626	53	984	439
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.40	0.40	0.03	0.28	0.28
Sat Flow, veh/h	1781	1870	1585	1781	1449	357	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	36	157	151	111	0	182	232	528	259	36	337	33
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1806	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.3	6.9	7.9	7.0	0.0	7.8	14.6	12.1	13.5	2.3	8.7	1.8
Cycle Q Clear(g_c), s	2.3	6.9	7.9	7.0	0.0	7.8	14.6	12.1	13.5	2.3	8.7	1.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	53	637	540	138	0	701	264	1404	626	53	984	439
V/C Ratio(X)	0.68	0.25	0.28	0.81	0.00	0.26	0.88	0.38	0.41	0.68	0.34	0.08
Avail Cap(c_a), veh/h	95	637	540	210	0	701	366	1404	626	98	984	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	27.2	27.5	52.0	0.0	23.8	47.7	24.6	25.0	55.0	33.1	30.6
Incr Delay (d2), s/veh	14.1	0.9	1.3	12.5	0.0	0.9	16.4	0.8	2.0	14.1	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.1	3.1	3.5	0.0	3.4	7.5	5.0	5.2	1.2	3.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	28.1	28.8	64.4	0.0	24.7	64.1	25.4	27.0	69.1	34.0	30.9
LnGrp LOS	E	C	C	E	A	C	E	C	C	E	C	C
Approach Vol, veh/h		344			293			1019			406	
Approach Delay, s/veh		32.7			39.8			34.6			36.9	
Approach LOS		C			D			C			D	

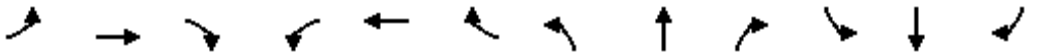
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	43.5	21.4	36.2	7.9	48.9	7.9	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.0	9.9	16.6	10.7	4.3	9.8	4.3	15.5
Green Ext Time (p_c), s	0.1	1.3	0.3	1.9	0.0	1.0	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	84	348	202	130	743	98	424	311	76	86	250	34
v/c Ratio	0.40	0.38	0.49	0.52	0.66	0.19	0.64	0.34	0.19	0.40	0.49	0.15
Control Delay	42.7	25.6	30.2	43.6	28.0	23.8	36.4	29.6	31.0	42.6	37.5	36.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	25.6	30.2	43.6	28.0	23.8	36.4	29.6	31.0	42.6	37.5	36.2
Queue Length 50th (ft)	40	74	85	62	173	36	101	70	31	41	62	15
Queue Length 95th (ft)	99	128	168	142	280	86	189	138	84	100	120	49
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	351	1748	782	351	1748	782	859	1294	579	442	1294	579
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.20	0.26	0.37	0.43	0.13	0.49	0.24	0.13	0.19	0.19	0.06

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	313	182	117	669	88	382	280	68	77	225	31
Future Volume (veh/h)	76	313	182	117	669	88	382	280	68	77	225	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	84	348	202	130	743	98	424	311	76	86	250	34
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	113	969	432	169	1080	482	587	825	368	114	449	200
Arrive On Green	0.06	0.28	0.28	0.10	0.31	0.31	0.17	0.24	0.24	0.07	0.13	0.13
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	3374	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	84	348	202	130	743	98	424	311	76	86	250	34
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1687	1735	1547	1739	1735	1547
Q Serve(g_s), s	2.7	4.5	6.1	4.1	10.6	2.6	6.7	4.2	2.2	2.7	3.8	1.1
Cycle Q Clear(g_c), s	2.7	4.5	6.1	4.1	10.6	2.6	6.7	4.2	2.2	2.7	3.8	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	969	432	169	1080	482	587	825	368	114	449	200
V/C Ratio(X)	0.74	0.36	0.47	0.77	0.69	0.20	0.72	0.38	0.21	0.75	0.56	0.17
Avail Cap(c_a), veh/h	479	2375	1060	479	2375	1060	1170	1758	784	603	1758	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	16.2	16.8	24.8	17.0	14.2	21.9	17.9	17.2	25.8	23.0	21.8
Incr Delay (d2), s/veh	9.2	0.2	0.8	7.2	0.8	0.2	1.7	0.3	0.3	9.5	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.4	1.9	1.8	3.3	0.8	2.4	1.5	0.7	1.3	1.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	16.5	17.6	32.0	17.8	14.4	23.6	18.2	17.4	35.4	24.0	22.2
LnGrp LOS	D	B	B	C	B	B	C	B	B	D	C	C
Approach Vol, veh/h		634			971			811			370	
Approach Delay, s/veh		19.3			19.3			21.0			26.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	20.2	14.3	11.8	8.2	22.0	8.2	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	6.1	8.1	8.7	5.8	4.7	12.6	4.7	6.2
Green Ext Time (p_c), s	0.2	2.6	1.1	1.5	0.1	5.0	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

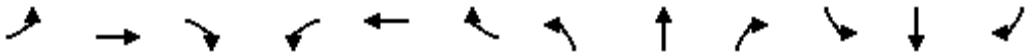
Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	183	202	82	755	97	113	599	35
v/c Ratio	0.11	0.53	0.49	0.30	0.62	0.18	0.36	0.47	0.06
Control Delay	20.2	27.6	25.3	30.1	18.9	16.1	29.2	15.7	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	27.6	25.3	30.1	18.9	16.1	29.2	15.7	13.9
Queue Length 50th (ft)	11	54	58	25	107	22	34	78	7
Queue Length 95th (ft)	35	118	124	70	182	57	87	132	24
Internal Link Dist (ft)	897		1147		1749			1910	
Turn Bay Length (ft)		200		300		205	200		200
Base Capacity (vph)	902	777	928	417	2161	967	525	2298	1028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.24	0.22	0.20	0.35	0.10	0.22	0.26	0.03

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	2	25	143	22	136	64	589	76	88	467	27
Future Volume (veh/h)	6	2	25	143	22	136	64	589	76	88	467	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	8	3	32	183	28	174	82	755	97	113	599	35
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	131	60	242	471	46	285	130	1252	558	156	1303	581
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.07	0.36	0.36	0.09	0.38	0.38
Sat Flow, veh/h	112	285	1155	1341	219	1362	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	43	0	0	183	0	202	82	755	97	113	599	35
Grp Sat Flow(s),veh/h/ln	1552	0	0	1341	0	1581	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.0	0.0	0.0	3.8	0.0	4.6	1.8	7.1	1.7	2.5	5.2	0.6
Cycle Q Clear(g_c), s	0.9	0.0	0.0	4.7	0.0	4.6	1.8	7.1	1.7	2.5	5.2	0.6
Prop In Lane	0.19		0.74	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	432	0	0	471	0	331	130	1252	558	156	1303	581
V/C Ratio(X)	0.10	0.00	0.00	0.39	0.00	0.61	0.63	0.60	0.17	0.72	0.46	0.06
Avail Cap(c_a), veh/h	1217	0	0	1187	0	1175	504	2841	1267	635	3103	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	14.2	0.0	14.2	17.8	10.4	8.6	17.6	9.4	7.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	1.8	4.9	0.5	0.1	6.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.1	0.0	1.4	0.7	1.8	0.4	1.1	1.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	0.0	0.0	14.7	0.0	16.0	22.7	10.8	8.8	23.8	9.6	8.0
LnGrp LOS	B	A	A	B	A	B	C	B	A	C	A	A
Approach Vol, veh/h		43			385			934			747	
Approach Delay, s/veh		12.8			15.4			11.7			11.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.8	7.5	19.4		12.8	8.1	18.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	11.5	35.5		29.5	14.5	32.5				
Max Q Clear Time (g_c+I1), s		2.9	3.8	7.2		6.7	4.5	9.1				
Green Ext Time (p_c), s		0.2	0.1	4.0		1.6	0.2	5.3				

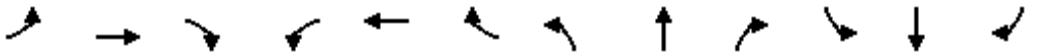
Intersection Summary	
HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	191	439	139	247	894	225	189	332	196	249	442	194
v/c Ratio	0.83	0.32	0.20	0.98	0.64	0.30	0.54	0.61	0.48	0.99	0.64	0.42
Control Delay	72.4	23.4	4.7	97.3	27.9	4.1	50.1	45.2	9.6	99.3	42.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	23.4	4.7	97.3	27.9	4.1	50.1	45.2	9.6	99.3	42.5	8.0
Queue Length 50th (ft)	122	102	0	161	240	0	60	107	0	162	141	0
Queue Length 95th (ft)	#209	134	27	#279	284	29	88	131	37	#282	166	36
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	231	1358	693	252	1400	762	391	1184	660	252	1285	698
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.32	0.20	0.98	0.64	0.30	0.48	0.28	0.30	0.99	0.34	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	347	110	195	706	178	149	262	155	197	349	153
Future Volume (veh/h)	151	347	110	195	706	178	149	262	155	197	349	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	439	139	247	894	225	189	332	196	249	442	194
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1351	603	252	1411	629	258	575	256	252	812	362
Arrive On Green	0.12	0.38	0.38	0.14	0.40	0.40	0.07	0.16	0.16	0.14	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	191	439	139	247	894	225	189	332	196	249	442	194
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	10.8	9.0	6.1	14.2	20.8	10.2	5.5	8.9	12.1	14.3	11.2	11.0
Cycle Q Clear(g_c), s	10.8	9.0	6.1	14.2	20.8	10.2	5.5	8.9	12.1	14.3	11.2	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	1351	603	252	1411	629	258	575	256	252	812	362
V/C Ratio(X)	0.86	0.32	0.23	0.98	0.63	0.36	0.73	0.58	0.76	0.99	0.54	0.54
Avail Cap(c_a), veh/h	231	1351	603	252	1411	629	391	1178	525	252	1278	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	22.5	21.6	43.9	24.9	21.7	46.5	39.8	41.1	44.0	34.9	34.8
Incr Delay (d2), s/veh	26.1	0.6	0.9	51.3	2.2	1.6	4.0	0.9	4.7	53.5	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	3.5	2.3	9.5	8.3	3.8	2.4	3.8	4.9	9.8	4.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.1	23.1	22.5	95.2	27.1	23.3	50.5	40.7	45.8	97.5	35.4	36.0
LnGrp LOS	E	C	C	F	C	C	D	D	D	F	D	D
Approach Vol, veh/h		769			1366			717			885	
Approach Delay, s/veh		34.7			38.8			44.7			53.0	
Approach LOS		C			D			D			D	

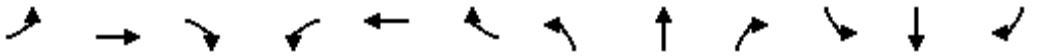
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	43.5	12.2	27.9	17.3	45.2	19.0	21.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	39.0	11.6	36.9	13.3	40.2	14.5	34.0
Max Q Clear Time (g_c+I1), s	16.2	11.0	7.5	13.2	12.8	22.8	16.3	14.1
Green Ext Time (p_c), s	0.0	3.0	0.2	3.3	0.0	5.8	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	78	143	322	294	289	201	466	140	51	702	86
v/c Ratio	0.57	0.25	0.49	0.89	0.37	0.95	0.40	0.23	0.60	0.84	0.17
Control Delay	69.4	32.9	11.4	75.0	24.1	103.0	33.4	6.0	84.5	53.9	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.4	32.9	11.4	75.0	24.1	103.0	33.4	6.0	84.5	53.9	0.7
Queue Length 50th (ft)	59	84	43	221	146	157	152	0	39	275	0
Queue Length 95th (ft)	106	132	110	#340	207	#287	191	41	#92	330	0
Internal Link Dist (ft)		893			833		2596			2597	
Turn Bay Length (ft)	150		150	150		215		150	230		150
Base Capacity (vph)	153	568	654	352	789	211	1151	609	85	834	508
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.25	0.49	0.84	0.37	0.95	0.40	0.23	0.60	0.84	0.17

Intersection Summary

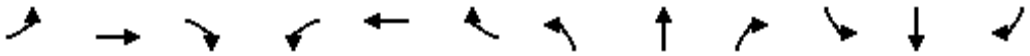
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	123	277	253	194	54	173	401	120	44	604	74
Future Volume (veh/h)	67	123	277	253	194	54	173	401	120	44	604	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	143	322	294	226	63	201	466	140	51	702	86
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	575	488	322	609	170	215	1143	510	66	846	377
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1407	392	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	78	143	322	294	0	289	201	466	140	51	702	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1800	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.1	6.7	20.8	19.1	0.0	12.8	13.2	12.0	7.7	3.3	22.1	5.1
Cycle Q Clear(g_c), s	5.1	6.7	20.8	19.1	0.0	12.8	13.2	12.0	7.7	3.3	22.1	5.1
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	575	488	322	0	779	215	1143	510	66	846	377
V/C Ratio(X)	0.78	0.25	0.66	0.91	0.00	0.37	0.94	0.41	0.27	0.78	0.83	0.23
Avail Cap(c_a), veh/h	156	575	488	357	0	779	215	1143	510	86	846	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	30.5	35.4	47.3	0.0	22.6	51.3	31.2	29.7	56.2	42.6	36.1
Incr Delay (d2), s/veh	12.6	1.0	6.9	25.6	0.0	1.4	43.5	1.1	1.3	27.1	9.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.1	8.6	10.5	0.0	5.5	8.3	5.2	0.2	2.0	10.4	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	31.6	42.3	72.9	0.0	23.9	94.8	32.2	31.0	83.3	51.9	37.5
LnGrp LOS	E	C	D	E	A	C	F	C	C	F	D	D
Approach Vol, veh/h		543			583			807			839	
Approach Delay, s/veh		43.1			48.6			47.6			52.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	40.7	18.7	32.5	11.1	55.4	8.8	42.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.3	49.5	5.7	36.5
Max Q Clear Time (g_c+I1), s	21.1	22.8	15.2	24.1	7.1	14.8	5.3	14.0
Green Ext Time (p_c), s	0.2	1.5	0.0	1.7	0.0	1.6	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	48.4
HCM 6th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	146	749	369	193	468	229	238	462	195	219	524	53
v/c Ratio	0.65	0.72	0.79	0.75	0.42	0.46	0.55	0.66	0.62	0.74	0.62	0.14
Control Delay	59.5	36.3	46.6	63.4	29.4	32.6	49.0	43.3	48.4	58.9	38.8	34.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	36.3	46.6	63.4	29.4	32.6	49.0	43.3	48.4	58.9	38.8	34.0
Queue Length 50th (ft)	94	232	224	125	129	122	78	153	122	138	162	28
Queue Length 95th (ft)	#185	332	372	#279	198	218	130	221	210	#282	246	67
Internal Link Dist (ft)		349			1207			1910			708	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	280	1393	623	280	1393	623	684	1031	461	352	1044	467
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.54	0.59	0.69	0.34	0.37	0.35	0.45	0.42	0.62	0.50	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	682	336	176	426	208	217	420	177	199	477	48
Future Volume (veh/h)	133	682	336	176	426	208	217	420	177	199	477	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	749	369	193	468	229	238	462	195	219	524	53
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1085	484	234	1185	529	339	658	293	263	833	371
Arrive On Green	0.10	0.31	0.31	0.13	0.34	0.34	0.10	0.19	0.19	0.15	0.24	0.24
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	3428	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	749	369	193	468	229	238	462	195	219	524	53
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1714	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.5	15.0	17.0	8.5	8.1	9.1	5.4	9.8	9.2	9.6	10.7	2.1
Cycle Q Clear(g_c), s	6.5	15.0	17.0	8.5	8.1	9.1	5.4	9.8	9.2	9.6	10.7	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1085	484	234	1185	529	339	658	293	263	833	371
V/C Ratio(X)	0.80	0.69	0.76	0.83	0.39	0.43	0.70	0.70	0.66	0.83	0.63	0.14
Avail Cap(c_a), veh/h	342	1695	756	342	1695	756	835	1255	560	430	1255	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	24.4	25.1	33.8	20.3	20.6	34.9	30.5	30.2	33.1	27.4	24.2
Incr Delay (d2), s/veh	7.7	0.8	2.5	10.3	0.2	0.6	2.6	1.4	2.6	7.2	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.5	6.0	4.0	2.9	3.1	2.2	4.0	3.4	4.4	4.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	25.2	27.6	44.1	20.6	21.2	37.6	31.9	32.8	40.3	28.2	24.3
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1264			890			895			796	
Approach Delay, s/veh		27.9			25.8			33.6			31.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	29.1	12.4	23.4	12.8	31.4	16.4	19.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.5	19.0	7.4	12.7	8.5	11.1	11.6	11.8
Green Ext Time (p_c), s	0.2	5.6	0.6	3.0	0.2	3.5	0.4	3.1

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

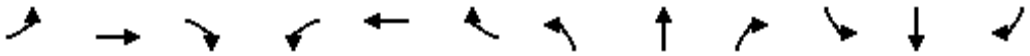
Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	251	95	152	49	887	140	207	1183	5
v/c Ratio	0.69	0.41	0.39	0.26	0.74	0.26	0.62	0.67	0.01
Control Delay	36.6	30.4	27.2	37.6	25.5	20.1	37.7	17.8	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	30.4	27.2	37.6	25.5	20.1	37.7	17.8	13.2
Queue Length 50th (ft)	101	35	56	21	175	43	85	220	1
Queue Length 95th (ft)	159	70	97	50	233	82	145	283	7
Internal Link Dist (ft)	897		1147		1749			1910	
Turn Bay Length (ft)		200		300		205	200		200
Base Capacity (vph)	573	366	613	270	1624	726	476	2043	914
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.26	0.25	0.18	0.55	0.19	0.43	0.58	0.01

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	38	93	71	2	112	37	665	105	155	887	4
Future Volume (veh/h)	57	38	93	71	2	112	37	665	105	155	887	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	76	51	124	95	3	149	49	887	140	207	1183	5
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	155	94	159	359	7	362	83	1262	563	263	1621	723
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.36	0.36	0.15	0.47	0.47
Sat Flow, veh/h	290	395	668	1181	31	1521	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	251	0	0	95	0	152	49	887	140	207	1183	5
Grp Sat Flow(s),veh/h/ln	1352	0	0	1181	0	1552	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	5.3	0.0	0.0	0.0	0.0	4.5	1.5	11.9	3.5	6.3	15.1	0.1
Cycle Q Clear(g_c), s	9.8	0.0	0.0	5.0	0.0	4.5	1.5	11.9	3.5	6.3	15.1	0.1
Prop In Lane	0.30		0.49	1.00		0.98	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	407	0	0	359	0	369	83	1262	563	263	1621	723
V/C Ratio(X)	0.62	0.00	0.00	0.26	0.00	0.41	0.59	0.70	0.25	0.79	0.73	0.01
Avail Cap(c_a), veh/h	770	0	0	651	0	753	334	2000	892	589	2508	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	17.8	0.0	17.6	25.5	14.9	12.2	22.3	11.8	7.8
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.4	0.0	0.7	6.4	0.7	0.2	5.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	0.9	0.0	1.4	0.7	3.7	1.0	2.6	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	0.0	0.0	18.2	0.0	18.3	31.9	15.6	12.4	27.5	12.4	7.8
LnGrp LOS	C	A	A	B	A	B	C	B	B	C	B	A
Approach Vol, veh/h		251			247			1076			1395	
Approach Delay, s/veh		21.2			18.3			15.9			14.6	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.5	7.1	30.0		17.5	12.8	24.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	39.5		26.5	18.5	31.5				
Max Q Clear Time (g_c+I1), s		11.8	3.5	17.1		7.0	8.3	13.9				
Green Ext Time (p_c), s		1.2	0.0	8.5		1.1	0.4	5.8				

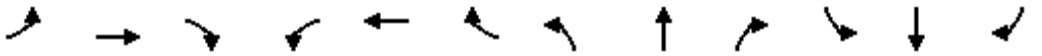
Intersection Summary												
HCM 6th Ctrl Delay			15.9									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	847	323	122	650	97	413	250	204	48	89	100
v/c Ratio	0.48	0.56	0.37	0.62	0.39	0.12	0.69	0.32	0.40	0.31	0.30	0.39
Control Delay	48.8	21.5	3.5	53.9	18.1	1.7	42.1	32.9	7.8	44.8	42.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	21.5	3.5	53.9	18.1	1.7	42.1	32.9	7.8	44.8	42.2	7.8
Queue Length 50th (ft)	47	190	0	69	133	0	116	68	0	27	26	0
Queue Length 95th (ft)	96	262	50	#142	192	14	169	108	59	61	50	26
Internal Link Dist (ft)		2538			1299			2597			991	
Turn Bay Length (ft)	305		250	300		300	300		300	300		155
Base Capacity (vph)	205	1525	866	205	1659	814	664	1643	844	205	1369	695
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.56	0.37	0.60	0.39	0.12	0.62	0.15	0.24	0.23	0.07	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



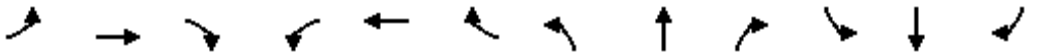
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	779	297	112	598	89	380	230	188	44	82	92
Future Volume (veh/h)	78	779	297	112	598	89	380	230	188	44	82	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	847	323	122	650	97	413	250	204	48	89	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	1634	729	154	1722	768	512	717	320	71	333	148
Arrive On Green	0.06	0.46	0.46	0.09	0.48	0.48	0.15	0.20	0.20	0.04	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	85	847	323	122	650	97	413	250	204	48	89	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.0	14.3	11.7	5.7	9.8	2.9	9.8	5.1	10.0	2.3	2.0	5.2
Cycle Q Clear(g_c), s	4.0	14.3	11.7	5.7	9.8	2.9	9.8	5.1	10.0	2.3	2.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	1634	729	154	1722	768	512	717	320	71	333	148
V/C Ratio(X)	0.77	0.52	0.44	0.79	0.38	0.13	0.81	0.35	0.64	0.67	0.27	0.67
Avail Cap(c_a), veh/h	220	1634	729	220	1722	768	713	1760	785	220	1466	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	16.3	15.5	38.0	13.8	12.0	35.0	29.1	31.0	40.2	35.7	37.2
Incr Delay (d2), s/veh	11.0	1.2	2.0	11.9	0.6	0.3	4.8	0.3	2.1	10.6	0.4	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.1	4.1	2.8	3.4	1.0	4.2	2.1	3.8	1.1	0.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	17.4	17.5	49.9	14.4	12.3	39.7	29.4	33.1	50.8	36.2	42.4
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	D	D
Approach Vol, veh/h		1255			869			867			237	
Approach Delay, s/veh		19.7			19.2			35.2			41.8	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	43.5	17.1	12.4	9.7	45.6	7.9	21.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	39.0	17.5	35.0	10.5	39.0	10.5	42.0
Max Q Clear Time (g_c+I1), s	7.7	16.3	11.8	7.2	6.0	11.8	4.3	12.0
Green Ext Time (p_c), s	0.1	6.5	0.7	0.8	0.1	4.3	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	168	164	115	191	243	563	268	37	362	34
v/c Ratio	0.42	0.28	0.26	0.65	0.26	0.80	0.39	0.34	0.39	0.41	0.06
Control Delay	68.8	31.8	4.7	67.6	24.0	65.9	26.4	4.2	67.2	39.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	31.8	4.7	67.6	24.0	65.9	26.4	4.2	67.2	39.0	0.2
Queue Length 50th (ft)	29	98	0	86	96	181	168	0	28	124	0
Queue Length 95th (ft)	67	159	42	149	156	269	218	54	65	174	0
Internal Link Dist (ft)		893			833		2596			2597	
Turn Bay Length (ft)	150		150	150		215		150	230		150
Base Capacity (vph)	93	602	631	208	747	362	1430	799	97	874	524
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.28	0.26	0.55	0.26	0.67	0.39	0.34	0.38	0.41	0.06

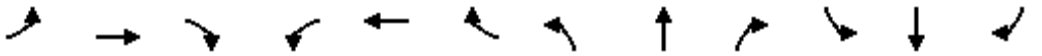
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	158	154	108	143	37	228	529	252	35	340	32
Future Volume (veh/h)	36	158	154	108	143	37	228	529	252	35	340	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	168	164	115	152	39	243	563	268	37	362	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	633	537	142	556	143	274	1402	625	54	962	429
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.15	0.39	0.39	0.03	0.27	0.27
Sat Flow, veh/h	1781	1870	1585	1781	1436	368	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	168	164	115	0	191	243	563	268	37	362	34
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1804	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.4	7.5	8.7	7.3	0.0	8.3	15.3	13.1	14.1	2.4	9.5	1.8
Cycle Q Clear(g_c), s	2.4	7.5	8.7	7.3	0.0	8.3	15.3	13.1	14.1	2.4	9.5	1.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	55	633	537	142	0	699	274	1402	625	54	962	429
V/C Ratio(X)	0.70	0.27	0.31	0.81	0.00	0.27	0.89	0.40	0.43	0.69	0.38	0.08
Avail Cap(c_a), veh/h	95	633	537	210	0	699	365	1402	625	98	962	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	27.5	28.0	51.9	0.0	24.0	47.5	25.0	25.3	55.0	33.9	31.1
Incr Delay (d2), s/veh	14.8	1.0	1.5	13.6	0.0	1.0	17.9	0.9	2.1	14.4	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.4	3.4	3.7	0.0	3.6	7.9	5.4	5.4	1.2	4.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	28.6	29.4	65.5	0.0	25.0	65.4	25.8	27.4	69.5	35.0	31.5
LnGrp LOS	E	C	C	E	A	C	E	C	C	E	D	C
Approach Vol, veh/h		370			306			1074			433	
Approach Delay, s/veh		33.2			40.2			35.2			37.7	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	43.3	22.1	35.5	8.0	48.9	8.0	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	6.1	44.4	6.3	45.2
Max Q Clear Time (g_c+I1), s	9.3	10.7	17.3	11.5	4.4	10.3	4.4	16.1
Green Ext Time (p_c), s	0.1	1.4	0.3	2.0	0.0	1.0	0.0	4.6

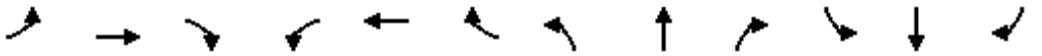
Intersection Summary	
HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Future Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	114	976	435	173	1092	487	584	819	365	123	464	207
Arrive On Green	0.07	0.28	0.28	0.10	0.31	0.31	0.17	0.24	0.24	0.07	0.13	0.13
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	3374	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1687	1735	1547	1739	1735	1547
Q Serve(g_s), s	2.9	4.7	6.2	4.3	11.0	3.0	6.8	4.4	2.3	3.1	4.1	1.6
Cycle Q Clear(g_c), s	2.9	4.7	6.2	4.3	11.0	3.0	6.8	4.4	2.3	3.1	4.1	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	976	435	173	1092	487	584	819	365	123	464	207
V/C Ratio(X)	0.77	0.36	0.46	0.77	0.69	0.22	0.73	0.39	0.21	0.77	0.57	0.23
Avail Cap(c_a), veh/h	469	2323	1036	469	2323	1036	1144	1719	767	590	1719	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	16.5	17.1	25.3	17.3	14.5	22.5	18.5	17.6	26.3	23.4	22.3
Incr Delay (d2), s/veh	10.4	0.2	0.8	7.1	0.8	0.2	1.7	0.3	0.3	9.6	1.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.5	1.9	1.8	3.5	0.9	2.5	1.5	0.7	1.4	1.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	16.8	17.9	32.4	18.1	14.7	24.2	18.8	17.9	35.8	24.4	22.8
LnGrp LOS	D	B	B	C	B	B	C	B	B	D	C	C
Approach Vol, veh/h		642			999			818			405	
Approach Delay, s/veh		19.9			19.6			21.5			26.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	20.7	14.4	12.2	8.3	22.6	8.6	18.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	6.3	8.2	8.8	6.1	4.9	13.0	5.1	6.4
Green Ext Time (p_c), s	0.2	2.7	1.1	1.6	0.1	5.1	0.2	2.0

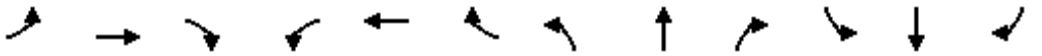
Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	3	31	143	24	137	64	594	76	90	480	30
Future Volume (veh/h)	8	3	31	143	24	137	64	594	76	90	480	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	10	4	40	183	31	176	82	762	97	115	615	38
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	131	60	241	470	50	282	130	1260	562	157	1314	586
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.07	0.36	0.36	0.09	0.38	0.38
Sat Flow, veh/h	118	284	1148	1330	237	1346	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	54	0	0	183	0	207	82	762	97	115	615	38
Grp Sat Flow(s),veh/h/ln	1550	0	0	1330	0	1584	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	4.8	1.8	7.2	1.7	2.6	5.4	0.6
Cycle Q Clear(g_c), s	1.1	0.0	0.0	4.7	0.0	4.8	1.8	7.2	1.7	2.6	5.4	0.6
Prop In Lane	0.19		0.74	1.00		0.85	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	432	0	0	470	0	332	130	1260	562	157	1314	586
V/C Ratio(X)	0.13	0.00	0.00	0.39	0.00	0.62	0.63	0.60	0.17	0.73	0.47	0.06
Avail Cap(c_a), veh/h	1132	0	0	1104	0	1087	542	2901	1294	673	3160	1410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	0.0	14.2	0.0	14.4	18.0	10.4	8.7	17.8	9.4	7.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	1.9	5.0	0.5	0.1	6.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.2	0.0	1.4	0.8	1.8	0.4	1.1	1.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	0.0	0.0	14.8	0.0	16.3	23.0	10.9	8.8	24.3	9.7	8.0
LnGrp LOS	B	A	A	B	A	B	C	B	A	C	A	A
Approach Vol, veh/h		54			390			941			768	
Approach Delay, s/veh		13.1			15.6			11.7			11.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.9	7.5	19.7		12.9	8.1	19.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	12.5	36.5		27.5	15.5	33.5				
Max Q Clear Time (g_c+I1), s		3.1	3.8	7.4		6.8	4.6	9.2				
Green Ext Time (p_c), s		0.2	0.1	4.2		1.6	0.2	5.4				

Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Future Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	1210	540	276	1304	582	312	563	251	351	943	420
Arrive On Green	0.13	0.34	0.34	0.15	0.37	0.37	0.09	0.16	0.16	0.20	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.3	12.3	11.5	16.4	27.3	18.1	8.3	12.7	14.3	21.0	14.9	13.2
Cycle Q Clear(g_c), s	13.3	12.3	11.5	16.4	27.3	18.1	8.3	12.7	14.3	21.0	14.9	13.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	1210	540	276	1304	582	312	563	251	351	943	420
V/C Ratio(X)	0.88	0.40	0.37	0.90	0.72	0.52	0.78	0.71	0.78	0.91	0.54	0.49
Avail Cap(c_a), veh/h	288	1210	540	333	1304	582	577	1003	447	510	1428	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	30.3	30.0	50.0	32.8	29.9	53.6	48.0	48.7	47.3	38.0	37.4
Incr Delay (d2), s/veh	20.9	1.0	2.0	22.6	3.4	3.3	4.3	1.6	5.2	15.0	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	5.1	4.5	8.7	11.6	7.2	3.7	5.6	5.9	10.5	6.3	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	31.2	31.9	72.6	36.2	33.2	58.0	49.6	53.9	62.3	38.5	38.3
LnGrp LOS	E	C	C	E	D	C	E	D	D	E	D	D
Approach Vol, veh/h		878			1489			837			1035	
Approach Delay, s/veh		40.8			41.7			53.1			45.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.1	45.5	15.4	36.4	20.0	48.7	28.2	23.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	41.0	20.1	48.4	19.5	44.0	34.5	34.0
Max Q Clear Time (g_c+I1), s	18.4	14.3	10.3	16.9	15.3	29.3	23.0	16.3
Green Ext Time (p_c), s	0.3	3.4	0.5	4.0	0.2	5.9	0.7	2.8

Intersection Summary	
HCM 6th Ctrl Delay	44.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Future Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	143	322	294	226	64	201	490	140	56	742	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	575	488	322	606	171	215	1130	504	72	846	377
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1402	397	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	79	143	322	294	0	290	201	490	140	56	742	90
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1799	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.2	6.7	20.8	19.1	0.0	12.8	13.2	12.8	7.8	3.7	23.7	5.4
Cycle Q Clear(g_c), s	5.2	6.7	20.8	19.1	0.0	12.8	13.2	12.8	7.8	3.7	23.7	5.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	575	488	322	0	777	215	1130	504	72	846	377
V/C Ratio(X)	0.79	0.25	0.66	0.91	0.00	0.37	0.94	0.43	0.28	0.77	0.88	0.24
Avail Cap(c_a), veh/h	159	575	488	357	0	777	215	1130	504	159	846	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	30.5	35.4	47.3	0.0	22.6	51.3	31.7	30.0	55.9	43.2	36.2
Incr Delay (d2), s/veh	12.5	1.0	6.9	25.6	0.0	1.4	43.5	1.2	1.4	15.9	12.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.1	8.6	10.5	0.0	5.5	8.3	5.5	3.1	1.9	11.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	31.6	42.3	72.9	0.0	24.0	94.8	33.0	31.4	71.8	55.6	37.7
LnGrp LOS	E	C	D	E	A	C	F	C	C	E	E	D
Approach Vol, veh/h		544			584			831			888	
Approach Delay, s/veh		43.1			48.6			47.7			54.8	
Approach LOS		D			D			D			D	

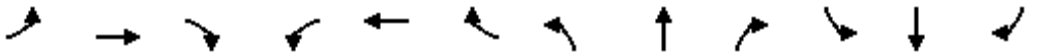
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	40.7	18.7	32.5	11.1	55.3	9.3	41.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.5	49.3	10.5	31.7
Max Q Clear Time (g_c+I1), s	21.1	22.8	15.2	25.7	7.2	14.8	5.7	14.8
Green Ext Time (p_c), s	0.2	1.5	0.0	1.1	0.0	1.6	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	49.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Future Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1086	484	231	1181	527	339	658	294	267	844	376
Arrive On Green	0.10	0.31	0.31	0.13	0.34	0.34	0.10	0.19	0.19	0.15	0.24	0.24
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	3428	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1714	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.5	15.4	17.1	8.5	8.4	9.7	5.4	9.9	9.3	9.9	9.5	2.4
Cycle Q Clear(g_c), s	6.5	15.4	17.1	8.5	8.4	9.7	5.4	9.9	9.3	9.9	9.5	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1086	484	231	1181	527	339	658	294	267	844	376
V/C Ratio(X)	0.80	0.70	0.76	0.83	0.40	0.46	0.70	0.70	0.66	0.84	0.56	0.15
Avail Cap(c_a), veh/h	340	1682	750	340	1682	750	829	1245	556	427	1245	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	24.6	25.2	34.2	20.6	21.0	35.2	30.7	30.5	33.3	27.0	24.2
Incr Delay (d2), s/veh	7.7	0.8	2.5	10.3	0.2	0.6	2.7	1.4	2.6	8.0	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.7	6.1	4.0	3.0	3.3	2.3	4.1	3.5	4.6	3.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	25.5	27.8	44.4	20.8	21.7	37.9	32.1	33.0	41.2	27.6	24.4
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1277			906			897			756	
Approach Delay, s/veh		28.1			26.0			33.8			31.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	29.3	12.5	23.8	12.9	31.5	16.7	19.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.5	19.1	7.4	11.5	8.5	11.7	11.9	11.9
Green Ext Time (p_c), s	0.2	5.7	0.6	2.8	0.2	3.6	0.4	3.1

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C



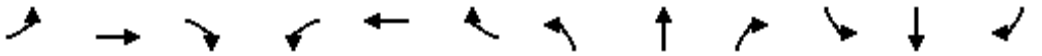
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	42	95	71	3	112	48	667	105	147	847	7
Future Volume (veh/h)	69	42	95	71	3	112	48	667	105	147	847	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	92	56	127	95	4	149	64	889	140	196	1129	9
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	173	101	161	372	11	392	98	1235	551	248	1533	684
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.06	0.36	0.36	0.14	0.44	0.44
Sat Flow, veh/h	335	388	620	1172	41	1513	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	275	0	0	95	0	153	64	889	140	196	1129	9
Grp Sat Flow(s),veh/h/ln	1343	0	0	1172	0	1554	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	6.5	0.0	0.0	0.0	0.0	4.5	2.0	12.4	3.6	6.1	15.0	0.2
Cycle Q Clear(g_c), s	11.0	0.0	0.0	5.1	0.0	4.5	2.0	12.4	3.6	6.1	15.0	0.2
Prop In Lane	0.33		0.46	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	0	0	372	0	403	98	1235	551	248	1533	684
V/C Ratio(X)	0.63	0.00	0.00	0.26	0.00	0.38	0.65	0.72	0.25	0.79	0.74	0.01
Avail Cap(c_a), veh/h	906	0	0	751	0	906	328	1837	819	453	2086	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	0.0	17.2	0.0	16.9	25.8	15.5	12.7	23.1	12.9	8.7
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.4	0.0	0.6	7.1	0.8	0.2	5.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	0.9	0.0	1.4	0.9	4.0	1.0	2.5	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	0.0	0.0	17.5	0.0	17.5	32.9	16.3	12.9	28.7	13.8	8.7
LnGrp LOS	C	A	A	B	A	B	C	B	B	C	B	A
Approach Vol, veh/h		275			248			1093			1334	
Approach Delay, s/veh		21.0			17.5			16.9			15.9	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.0	7.6	29.1		19.0	12.4	24.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	10.5	33.5		32.5	14.5	29.5				
Max Q Clear Time (g_c+I1), s		13.0	4.0	17.0		7.1	8.1	14.4				
Green Ext Time (p_c), s		1.5	0.0	6.9		1.2	0.3	5.5				

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

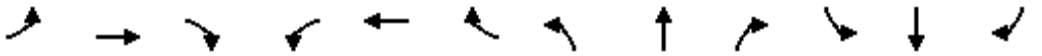
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Future Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	1699	758	152	1768	789	564	610	272	158	346	154
Arrive On Green	0.07	0.48	0.48	0.09	0.50	0.50	0.16	0.17	0.17	0.09	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.2	17.4	15.8	6.9	12.3	4.5	13.3	7.2	12.5	7.1	4.0	6.8
Cycle Q Clear(g_c), s	5.2	17.4	15.8	6.9	12.3	4.5	13.3	7.2	12.5	7.1	4.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	1699	758	152	1768	789	564	610	272	158	346	154
V/C Ratio(X)	0.78	0.51	0.48	0.80	0.39	0.16	0.82	0.46	0.75	0.80	0.43	0.71
Avail Cap(c_a), veh/h	276	1699	758	304	1768	789	1029	1300	580	487	1214	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	18.5	18.1	46.0	16.0	14.1	41.4	38.2	40.4	45.8	43.6	44.8
Incr Delay (d2), s/veh	10.6	1.1	2.1	9.3	0.6	0.4	3.1	0.5	4.1	8.7	0.8	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.5	5.7	3.3	4.5	1.6	5.7	3.1	5.0	3.4	1.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	19.6	20.2	55.3	16.7	14.5	44.5	38.7	44.5	54.5	44.4	50.6
LnGrp LOS	E	B	C	E	B	B	D	D	D	D	D	D
Approach Vol, veh/h		1327			935			947			384	
Approach Delay, s/veh		22.4			21.4			42.8			49.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	53.5	21.2	14.5	11.3	55.5	13.6	22.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	49.0	30.5	35.0	15.9	50.6	28.0	37.5
Max Q Clear Time (g_c+I1), s	8.9	19.4	15.3	8.8	7.2	14.3	9.1	14.5
Green Ext Time (p_c), s	0.2	7.4	1.4	1.1	0.1	4.8	0.3	2.2

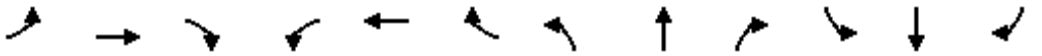
Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	159	156	108	143	39	228	550	252	37	356	34
Future Volume (veh/h)	37	159	156	108	143	39	228	550	252	37	356	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	169	166	115	152	41	243	585	268	39	379	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	638	540	143	552	149	277	1355	604	57	917	409
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.16	0.38	0.38	0.03	0.26	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1419	383	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	39	169	166	115	0	193	243	585	268	39	379	36
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1801	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.4	7.1	8.4	6.9	0.0	8.0	14.5	13.2	13.7	2.4	9.6	1.9
Cycle Q Clear(g_c), s	2.4	7.1	8.4	6.9	0.0	8.0	14.5	13.2	13.7	2.4	9.6	1.9
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	57	638	540	143	0	701	277	1355	604	57	917	409
V/C Ratio(X)	0.69	0.27	0.31	0.81	0.00	0.28	0.88	0.43	0.44	0.69	0.41	0.09
Avail Cap(c_a), veh/h	172	638	540	222	0	701	386	1355	604	172	917	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	25.9	26.3	49.1	0.0	22.7	44.9	24.9	25.0	52.0	33.5	30.6
Incr Delay (d2), s/veh	13.7	1.0	1.5	11.3	0.0	1.0	15.5	1.0	2.4	13.7	1.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.2	3.2	3.4	0.0	3.4	7.3	5.5	5.3	1.2	4.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	26.9	27.8	60.4	0.0	23.7	60.3	25.9	27.4	65.7	34.8	31.0
LnGrp LOS	E	C	C	E	A	C	E	C	C	E	C	C
Approach Vol, veh/h		374			308			1096			454	
Approach Delay, s/veh		31.4			37.4			33.9			37.2	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	41.5	21.4	32.5	8.0	46.7	8.0	45.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	10.5	40.0	10.5	41.0
Max Q Clear Time (g_c+I1), s	8.9	10.4	16.5	11.6	4.4	10.0	4.4	15.7
Green Ext Time (p_c), s	0.1	1.4	0.4	2.1	0.0	1.0	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Future Volume (veh/h)	79	317	182	120	682	97	382	286	68	85	237	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	114	976	435	173	1092	487	584	819	365	123	464	207
Arrive On Green	0.07	0.28	0.28	0.10	0.31	0.31	0.17	0.24	0.24	0.07	0.13	0.13
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	3374	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	88	352	202	133	758	108	424	318	76	94	263	48
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1687	1735	1547	1739	1735	1547
Q Serve(g_s), s	2.9	4.7	6.2	4.3	11.0	3.0	6.8	4.4	2.3	3.1	4.1	1.6
Cycle Q Clear(g_c), s	2.9	4.7	6.2	4.3	11.0	3.0	6.8	4.4	2.3	3.1	4.1	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	976	435	173	1092	487	584	819	365	123	464	207
V/C Ratio(X)	0.77	0.36	0.46	0.77	0.69	0.22	0.73	0.39	0.21	0.77	0.57	0.23
Avail Cap(c_a), veh/h	469	2323	1036	469	2323	1036	1144	1719	767	590	1719	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	16.5	17.1	25.3	17.3	14.5	22.5	18.5	17.6	26.3	23.4	22.3
Incr Delay (d2), s/veh	10.4	0.2	0.8	7.1	0.8	0.2	1.7	0.3	0.3	9.6	1.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.5	1.9	1.8	3.5	0.9	2.5	1.5	0.7	1.4	1.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	16.8	17.9	32.4	18.1	14.7	24.2	18.8	17.9	35.8	24.4	22.8
LnGrp LOS	D	B	B	C	B	B	C	B	B	D	C	C
Approach Vol, veh/h		642			999			818			405	
Approach Delay, s/veh		19.9			19.6			21.5			26.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	20.7	14.4	12.2	8.3	22.6	8.6	18.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	6.3	8.2	8.8	6.1	4.9	13.0	5.1	6.4
Green Ext Time (p_c), s	0.2	2.7	1.1	1.6	0.1	5.1	0.2	2.0

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	3	35	143	26	137	65	594	76	90	480	33
Future Volume (veh/h)	9	3	35	143	26	137	65	594	76	90	480	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	12	4	45	183	33	176	83	762	97	115	615	42
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	133	58	236	469	53	282	131	1259	562	156	1310	584
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.36	0.36	0.09	0.38	0.38
Sat Flow, veh/h	124	273	1118	1324	250	1335	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	61	0	0	183	0	209	83	762	97	115	615	42
Grp Sat Flow(s),veh/h/ln	1515	0	0	1324	0	1586	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.8	1.9	7.2	1.7	2.6	5.4	0.7
Cycle Q Clear(g_c), s	4.8	0.0	0.0	4.7	0.0	4.8	1.9	7.2	1.7	2.6	5.4	0.7
Prop In Lane	0.20		0.74	1.00		0.84	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	427	0	0	469	0	334	131	1259	562	156	1310	584
V/C Ratio(X)	0.14	0.00	0.00	0.39	0.00	0.62	0.63	0.61	0.17	0.73	0.47	0.07
Avail Cap(c_a), veh/h	1119	0	0	1097	0	1086	541	2894	1291	671	3154	1407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	0.0	14.4	0.0	14.4	18.0	10.4	8.7	17.8	9.5	8.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	1.9	5.0	0.5	0.1	6.5	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.2	0.0	1.4	0.8	1.8	0.4	1.1	1.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	0.0	0.0	14.9	0.0	16.3	23.1	10.9	8.8	24.3	9.7	8.0
LnGrp LOS	B	A	A	B	A	B	C	B	A	C	A	A
Approach Vol, veh/h		61			392			942			772	
Approach Delay, s/veh		13.1			15.6			11.8			11.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.0	7.5	19.7		13.0	8.1	19.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	12.5	36.5		27.5	15.5	33.5				
Max Q Clear Time (g_c+I1), s		6.8	3.9	7.4		6.8	4.6	9.2				
Green Ext Time (p_c), s		0.2	0.1	4.2		1.7	0.2	5.4				

Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Future Volume (veh/h)	158	378	158	195	741	240	193	314	155	251	404	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	1210	540	276	1304	582	312	563	251	351	943	420
Arrive On Green	0.13	0.34	0.34	0.15	0.37	0.37	0.09	0.16	0.16	0.20	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	200	478	200	247	938	304	244	397	196	318	511	206
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.3	12.3	11.5	16.4	27.3	18.1	8.3	12.7	14.3	21.0	14.9	13.2
Cycle Q Clear(g_c), s	13.3	12.3	11.5	16.4	27.3	18.1	8.3	12.7	14.3	21.0	14.9	13.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	1210	540	276	1304	582	312	563	251	351	943	420
V/C Ratio(X)	0.88	0.40	0.37	0.90	0.72	0.52	0.78	0.71	0.78	0.91	0.54	0.49
Avail Cap(c_a), veh/h	288	1210	540	333	1304	582	577	1003	447	510	1428	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	30.3	30.0	50.0	32.8	29.9	53.6	48.0	48.7	47.3	38.0	37.4
Incr Delay (d2), s/veh	20.9	1.0	2.0	22.6	3.4	3.3	4.3	1.6	5.2	15.0	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	5.1	4.5	8.7	11.6	7.2	3.7	5.6	5.9	10.5	6.3	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	31.2	31.9	72.6	36.2	33.2	58.0	49.6	53.9	62.3	38.5	38.3
LnGrp LOS	E	C	C	E	D	C	E	D	D	E	D	D
Approach Vol, veh/h		878			1489			837			1035	
Approach Delay, s/veh		40.8			41.7			53.1			45.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.1	45.5	15.4	36.4	20.0	48.7	28.2	23.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	41.0	20.1	48.4	19.5	44.0	34.5	34.0
Max Q Clear Time (g_c+I1), s	18.4	14.3	10.3	16.9	15.3	29.3	23.0	16.3
Green Ext Time (p_c), s	0.3	3.4	0.5	4.0	0.2	5.9	0.7	2.8

Intersection Summary	
HCM 6th Ctrl Delay	44.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Future Volume (veh/h)	68	123	277	253	194	55	173	421	120	48	638	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	143	322	294	226	64	201	490	140	56	742	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	575	488	322	606	171	215	1130	504	72	846	377
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1402	397	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	79	143	322	294	0	290	201	490	140	56	742	90
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1799	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.2	6.7	20.8	19.1	0.0	12.8	13.2	12.8	7.8	3.7	23.7	5.4
Cycle Q Clear(g_c), s	5.2	6.7	20.8	19.1	0.0	12.8	13.2	12.8	7.8	3.7	23.7	5.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	575	488	322	0	777	215	1130	504	72	846	377
V/C Ratio(X)	0.79	0.25	0.66	0.91	0.00	0.37	0.94	0.43	0.28	0.77	0.88	0.24
Avail Cap(c_a), veh/h	159	575	488	357	0	777	215	1130	504	159	846	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	30.5	35.4	47.3	0.0	22.6	51.3	31.7	30.0	55.9	43.2	36.2
Incr Delay (d2), s/veh	12.5	1.0	6.9	25.6	0.0	1.4	43.5	1.2	1.4	15.9	12.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.1	8.6	10.5	0.0	5.5	8.3	5.5	3.1	1.9	11.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	31.6	42.3	72.9	0.0	24.0	94.8	33.0	31.4	71.8	55.6	37.7
LnGrp LOS	E	C	D	E	A	C	F	C	C	E	E	D
Approach Vol, veh/h		544			584			831			888	
Approach Delay, s/veh		43.1			48.6			47.7			54.8	
Approach LOS		D			D			D			D	

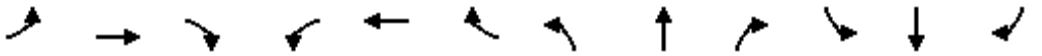
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	40.7	18.7	32.5	11.1	55.3	9.3	41.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.5	49.3	10.5	31.7
Max Q Clear Time (g_c+I1), s	21.1	22.8	15.2	25.7	7.2	14.8	5.7	14.8
Green Ext Time (p_c), s	0.2	1.5	0.0	1.1	0.0	1.6	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	49.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Future Volume (veh/h)	133	693	336	174	432	218	217	422	177	204	431	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1086	484	231	1181	527	339	658	294	267	844	376
Arrive On Green	0.10	0.31	0.31	0.13	0.34	0.34	0.10	0.19	0.19	0.15	0.24	0.24
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	3428	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	762	369	191	475	240	238	464	195	224	474	58
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1714	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.5	15.4	17.1	8.5	8.4	9.7	5.4	9.9	9.3	9.9	9.5	2.4
Cycle Q Clear(g_c), s	6.5	15.4	17.1	8.5	8.4	9.7	5.4	9.9	9.3	9.9	9.5	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1086	484	231	1181	527	339	658	294	267	844	376
V/C Ratio(X)	0.80	0.70	0.76	0.83	0.40	0.46	0.70	0.70	0.66	0.84	0.56	0.15
Avail Cap(c_a), veh/h	340	1682	750	340	1682	750	829	1245	556	427	1245	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	24.6	25.2	34.2	20.6	21.0	35.2	30.7	30.5	33.3	27.0	24.2
Incr Delay (d2), s/veh	7.7	0.8	2.5	10.3	0.2	0.6	2.7	1.4	2.6	8.0	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.7	6.1	4.0	3.0	3.3	2.3	4.1	3.5	4.6	3.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	25.5	27.8	44.4	20.8	21.7	37.9	32.1	33.0	41.2	27.6	24.4
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1277			906			897			756	
Approach Delay, s/veh		28.1			26.0			33.8			31.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	29.3	12.5	23.8	12.9	31.5	16.7	19.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.5	19.1	7.4	11.5	8.5	11.7	11.9	11.9
Green Ext Time (p_c), s	0.2	5.7	0.6	2.8	0.2	3.6	0.4	3.1

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	46	101	71	4	112	55	667	105	147	847	9
Future Volume (veh/h)	78	46	101	71	4	112	55	667	105	147	847	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	104	61	135	95	5	149	73	889	140	196	1129	12
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	182	104	167	371	14	417	103	1213	541	246	1498	668
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.06	0.35	0.35	0.14	0.43	0.43
Sat Flow, veh/h	358	377	601	1159	50	1505	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	300	0	0	95	0	154	73	889	140	196	1129	12
Grp Sat Flow(s),veh/h/ln	1337	0	0	1159	0	1555	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	8.0	0.0	0.0	0.0	0.0	4.6	2.4	13.1	3.8	6.4	16.0	0.3
Cycle Q Clear(g_c), s	12.6	0.0	0.0	5.5	0.0	4.6	2.4	13.1	3.8	6.4	16.0	0.3
Prop In Lane	0.35		0.45	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	454	0	0	371	0	431	103	1213	541	246	1498	668
V/C Ratio(X)	0.66	0.00	0.00	0.26	0.00	0.36	0.71	0.73	0.26	0.80	0.75	0.02
Avail Cap(c_a), veh/h	859	0	0	695	0	866	313	1754	782	432	1992	889
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	0.0	17.2	0.0	16.9	26.9	16.6	13.6	24.2	14.0	9.5
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.4	0.0	0.5	8.5	0.9	0.3	5.8	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	0.9	0.0	1.5	1.1	4.3	1.1	2.7	5.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	0.0	17.6	0.0	17.4	35.4	17.5	13.8	30.0	15.1	9.5
LnGrp LOS	C	A	A	B	A	B	D	B	B	C	B	A
Approach Vol, veh/h		300			249			1102			1337	
Approach Delay, s/veh		21.6			17.5			18.2			17.3	
Approach LOS		C			B			B			B	

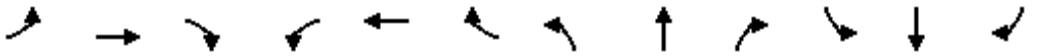
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.7	8.0	29.7		20.7	12.8	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	10.5	33.5		32.5	14.5	29.5				
Max Q Clear Time (g_c+I1), s		14.6	4.4	18.0		7.5	8.4	15.1				
Green Ext Time (p_c), s		1.6	0.1	6.7		1.2	0.3	5.3				

Intersection Summary												
HCM 6th Ctrl Delay			18.1									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Future Volume (veh/h)	85	804	332	112	631	117	427	257	188	116	137	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	1699	758	152	1768	789	564	610	272	158	346	154
Arrive On Green	0.07	0.48	0.48	0.09	0.50	0.50	0.16	0.17	0.17	0.09	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	92	874	361	122	686	127	464	279	204	126	149	109
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.2	17.4	15.8	6.9	12.3	4.5	13.3	7.2	12.5	7.1	4.0	6.8
Cycle Q Clear(g_c), s	5.2	17.4	15.8	6.9	12.3	4.5	13.3	7.2	12.5	7.1	4.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	1699	758	152	1768	789	564	610	272	158	346	154
V/C Ratio(X)	0.78	0.51	0.48	0.80	0.39	0.16	0.82	0.46	0.75	0.80	0.43	0.71
Avail Cap(c_a), veh/h	276	1699	758	304	1768	789	1029	1300	580	487	1214	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	18.5	18.1	46.0	16.0	14.1	41.4	38.2	40.4	45.8	43.6	44.8
Incr Delay (d2), s/veh	10.6	1.1	2.1	9.3	0.6	0.4	3.1	0.5	4.1	8.7	0.8	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.5	5.7	3.3	4.5	1.6	5.7	3.1	5.0	3.4	1.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	19.6	20.2	55.3	16.7	14.5	44.5	38.7	44.5	54.5	44.4	50.6
LnGrp LOS	E	B	C	E	B	B	D	D	D	D	D	D
Approach Vol, veh/h		1327			935			947			384	
Approach Delay, s/veh		22.4			21.4			42.8			49.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	53.5	21.2	14.5	11.3	55.5	13.6	22.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	49.0	30.5	35.0	15.9	50.6	28.0	37.5
Max Q Clear Time (g_c+I1), s	8.9	19.4	15.3	8.8	7.2	14.3	9.1	14.5
Green Ext Time (p_c), s	0.2	7.4	1.4	1.1	0.1	4.8	0.3	2.2

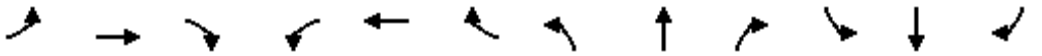
Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	170	163	108	143	39	228	550	252	37	356	34
Future Volume (veh/h)	37	170	163	108	143	39	228	550	252	37	356	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	181	173	115	152	41	243	585	268	39	379	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	638	540	143	552	149	277	1355	604	57	917	409
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.16	0.38	0.38	0.03	0.26	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1419	383	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	39	181	173	115	0	193	243	585	268	39	379	36
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1801	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.4	7.7	8.8	6.9	0.0	8.0	14.5	13.2	13.7	2.4	9.6	1.9
Cycle Q Clear(g_c), s	2.4	7.7	8.8	6.9	0.0	8.0	14.5	13.2	13.7	2.4	9.6	1.9
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	57	638	540	143	0	701	277	1355	604	57	917	409
V/C Ratio(X)	0.69	0.28	0.32	0.81	0.00	0.28	0.88	0.43	0.44	0.69	0.41	0.09
Avail Cap(c_a), veh/h	172	638	540	222	0	701	386	1355	604	172	917	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	26.1	26.5	49.1	0.0	22.7	44.9	24.9	25.0	52.0	33.5	30.6
Incr Delay (d2), s/veh	13.7	1.1	1.6	11.3	0.0	1.0	15.5	1.0	2.4	13.7	1.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.5	3.4	3.4	0.0	3.4	7.3	5.5	5.3	1.2	4.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	27.2	28.0	60.4	0.0	23.7	60.3	25.9	27.4	65.7	34.8	31.0
LnGrp LOS	E	C	C	E	A	C	E	C	C	E	C	C
Approach Vol, veh/h		393			308			1096			454	
Approach Delay, s/veh		31.4			37.4			33.9			37.2	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	41.5	21.4	32.5	8.0	46.7	8.0	45.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	10.5	40.0	10.5	41.0
Max Q Clear Time (g_c+I1), s	8.9	10.8	16.5	11.6	4.4	10.0	4.4	15.7
Green Ext Time (p_c), s	0.1	1.5	0.4	2.1	0.0	1.0	0.0	4.7

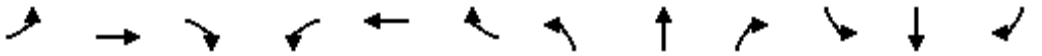
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	321	182	123	695	106	382	291	68	92	249	55
Future Volume (veh/h)	82	321	182	123	695	106	382	291	68	92	249	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	91	357	202	137	772	118	424	323	76	102	277	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	118	983	438	177	1102	491	579	808	360	133	478	213
Arrive On Green	0.07	0.28	0.28	0.10	0.32	0.32	0.17	0.23	0.23	0.08	0.14	0.14
Sat Flow, veh/h	1739	3469	1547	1739	3469	1547	3374	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	91	357	202	137	772	118	424	323	76	102	277	61
Grp Sat Flow(s),veh/h/ln	1739	1735	1547	1739	1735	1547	1687	1735	1547	1739	1735	1547
Q Serve(g_s), s	3.0	4.8	6.3	4.5	11.5	3.3	7.0	4.6	2.3	3.4	4.4	2.1
Cycle Q Clear(g_c), s	3.0	4.8	6.3	4.5	11.5	3.3	7.0	4.6	2.3	3.4	4.4	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	983	438	177	1102	491	579	808	360	133	478	213
V/C Ratio(X)	0.77	0.36	0.46	0.77	0.70	0.24	0.73	0.40	0.21	0.77	0.58	0.29
Avail Cap(c_a), veh/h	457	2264	1010	457	2264	1010	1115	1676	748	575	1676	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	16.9	17.4	25.8	17.7	14.9	23.1	19.1	18.3	26.7	23.8	22.8
Incr Delay (d2), s/veh	10.2	0.2	0.8	7.0	0.8	0.3	1.8	0.3	0.3	8.8	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.6	2.0	1.9	3.7	1.0	2.6	1.6	0.7	1.6	1.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	17.1	18.2	32.8	18.5	15.1	25.0	19.5	18.5	35.5	24.9	23.5
LnGrp LOS	D	B	B	C	B	B	C	B	B	D	C	C
Approach Vol, veh/h		650			1027			823			440	
Approach Delay, s/veh		20.3			20.0			22.2			27.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	21.2	14.6	12.6	8.5	23.2	9.0	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	6.5	8.3	9.0	6.4	5.0	13.5	5.4	6.6
Green Ext Time (p_c), s	0.2	2.7	1.1	1.7	0.1	5.2	0.2	2.1

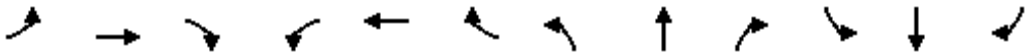
Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	4	42	143	30	137	68	598	76	92	492	39
Future Volume (veh/h)	11	4	42	143	30	137	68	598	76	92	492	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	14	5	54	183	38	176	87	767	97	118	631	50
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	131	57	234	465	60	279	134	1260	562	158	1307	583
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.36	0.36	0.09	0.38	0.38
Sat Flow, veh/h	120	266	1097	1312	282	1308	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	73	0	0	183	0	214	87	767	97	118	631	50
Grp Sat Flow(s),veh/h/ln	1483	0	0	1312	0	1590	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.0	2.0	7.3	1.7	2.7	5.6	0.8
Cycle Q Clear(g_c), s	5.0	0.0	0.0	4.9	0.0	5.0	2.0	7.3	1.7	2.7	5.6	0.8
Prop In Lane	0.19		0.74	1.00		0.82	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	422	0	0	465	0	339	134	1260	562	158	1307	583
V/C Ratio(X)	0.17	0.00	0.00	0.39	0.00	0.63	0.65	0.61	0.17	0.75	0.48	0.09
Avail Cap(c_a), veh/h	1101	0	0	1074	0	1078	536	2865	1278	664	3121	1392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	14.5	0.0	14.5	18.2	10.6	8.8	18.0	9.6	8.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	1.9	5.2	0.5	0.1	6.9	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	1.2	0.0	1.5	0.8	1.9	0.4	1.1	1.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	0.0	0.0	15.0	0.0	16.4	23.4	11.0	8.9	24.9	9.9	8.2
LnGrp LOS	B	A	A	B	A	B	C	B	A	C	A	A
Approach Vol, veh/h		73			397			951			799	
Approach Delay, s/veh		13.3			15.8			12.0			12.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.2	7.6	19.8		13.2	8.2	19.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	12.5	36.5		27.5	15.5	33.5				
Max Q Clear Time (g_c+I1), s		7.0	4.0	7.6		7.0	4.7	9.3				
Green Ext Time (p_c), s		0.3	0.1	4.3		1.7	0.2	5.4				

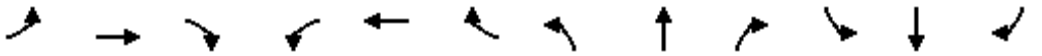
Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	124	9	107	241	12	15	38	82	34	32	22
Future Volume (veh/h)	14	124	9	107	241	12	15	38	82	34	32	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	19	168	12	145	326	16	20	51	111	46	43	30
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	559	632	45	686	647	32	670	120	261	311	165	84
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1047	1739	124	1214	1782	87	1338	528	1150	371	724	369
Grp Volume(v), veh/h	19	0	180	145	0	342	20	0	162	119	0	0
Grp Sat Flow(s),veh/h/ln	1047	0	1863	1214	0	1869	1338	0	1678	1464	0	0
Q Serve(g_s), s	0.3	0.0	1.5	2.1	0.0	3.1	0.0	0.0	1.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	1.5	3.6	0.0	3.1	0.2	0.0	1.8	1.9	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.05	1.00		0.69	0.39		0.25
Lane Grp Cap(c), veh/h	559	0	677	686	0	679	670	0	382	560	0	0
V/C Ratio(X)	0.03	0.00	0.27	0.21	0.00	0.50	0.03	0.00	0.42	0.21	0.00	0.00
Avail Cap(c_a), veh/h	3391	0	5718	3970	0	5738	3012	0	3320	3201	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.8	0.0	4.9	6.2	0.0	5.5	6.6	0.0	7.3	7.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.2	0.0	0.6	0.0	0.0	0.7	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.4	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.8	0.0	5.1	6.4	0.0	6.0	6.7	0.0	8.0	7.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		199			487			182			119	
Approach Delay, s/veh		5.3			6.1			7.9			7.2	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.5		12.5		9.5		12.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		43.5		67.5		43.5		67.5				
Max Q Clear Time (g_c+I1), s		3.8		5.5		3.9		5.6				
Green Ext Time (p_c), s		1.1		1.1		0.7		2.5				

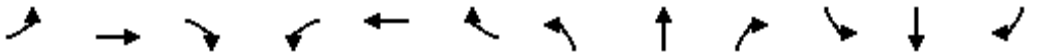
Intersection Summary												
HCM 6th Ctrl Delay			6.4									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	408	206	195	775	302	237	366	155	304	459	173
Future Volume (veh/h)	165	408	206	195	775	302	237	366	155	304	459	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	516	261	247	981	382	300	463	196	385	581	219
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	1118	499	272	1194	532	362	582	260	412	1032	460
Arrive On Green	0.13	0.31	0.31	0.15	0.34	0.34	0.10	0.16	0.16	0.23	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	209	516	261	247	981	382	300	463	196	385	581	219
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	15.1	15.3	17.7	17.9	33.2	27.6	11.1	16.4	15.5	27.8	18.2	14.9
Cycle Q Clear(g_c), s	15.1	15.3	17.7	17.9	33.2	27.6	11.1	16.4	15.5	27.8	18.2	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	1118	499	272	1194	532	362	582	260	412	1032	460
V/C Ratio(X)	0.89	0.46	0.52	0.91	0.82	0.72	0.83	0.80	0.75	0.93	0.56	0.48
Avail Cap(c_a), veh/h	265	1118	499	306	1194	532	530	922	411	469	1313	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	36.0	36.8	54.6	39.9	38.1	57.5	52.7	52.3	49.4	39.4	38.3
Incr Delay (d2), s/veh	27.1	1.4	3.9	27.2	6.4	8.1	7.0	2.6	4.4	24.5	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	6.5	7.2	9.7	14.7	11.6	5.1	7.4	6.3	14.8	7.8	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.1	37.4	40.7	81.7	46.3	46.1	64.5	55.2	56.7	73.8	39.9	39.0
LnGrp LOS	F	D	D	F	D	D	E	E	E	E	D	D
Approach Vol, veh/h		986			1610			959			1185	
Approach Delay, s/veh		48.0			51.7			58.4			50.8	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.5	45.7	18.2	42.5	21.7	48.5	34.8	26.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	41.0	20.1	48.4	19.5	44.0	34.5	34.0
Max Q Clear Time (g_c+I1), s	19.9	19.7	13.1	20.2	17.1	35.2	29.8	18.4
Green Ext Time (p_c), s	0.2	3.7	0.6	4.5	0.1	4.7	0.5	3.0

Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	123	277	253	194	56	173	440	120	51	672	80
Future Volume (veh/h)	69	123	277	253	194	56	173	440	120	51	672	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	143	322	294	226	65	201	512	140	59	781	93
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	575	488	322	602	173	215	1122	501	76	846	377
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.12	0.32	0.32	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1396	402	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	80	143	322	294	0	291	201	512	140	59	781	93
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1798	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.2	6.7	20.8	19.1	0.0	12.9	13.2	13.6	7.8	3.9	25.3	5.6
Cycle Q Clear(g_c), s	5.2	6.7	20.8	19.1	0.0	12.9	13.2	13.6	7.8	3.9	25.3	5.6
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	575	488	322	0	775	215	1122	501	76	846	377
V/C Ratio(X)	0.79	0.25	0.66	0.91	0.00	0.38	0.94	0.46	0.28	0.77	0.92	0.25
Avail Cap(c_a), veh/h	159	575	488	357	0	775	215	1122	501	159	846	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	30.5	35.4	47.3	0.0	22.7	51.3	32.2	30.2	55.8	43.8	36.3
Incr Delay (d2), s/veh	12.7	1.0	6.9	25.6	0.0	1.4	43.5	1.3	1.4	15.2	17.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.1	8.6	10.5	0.0	5.5	8.3	5.8	3.1	2.0	12.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	31.6	42.3	72.9	0.0	24.1	94.8	33.5	31.6	71.0	61.0	37.9
LnGrp LOS	E	C	D	E	A	C	F	C	C	E	E	D
Approach Vol, veh/h		545			585			853			933	
Approach Delay, s/veh		43.2			48.6			47.6			59.3	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	40.7	18.7	32.5	11.2	55.3	9.5	41.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.6	36.2	14.2	28.0	10.5	49.3	10.5	31.7
Max Q Clear Time (g_c+I1), s	21.1	22.8	15.2	27.3	7.2	14.9	5.9	15.6
Green Ext Time (p_c), s	0.2	1.5	0.0	0.4	0.0	1.6	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	703	336	171	438	228	217	424	176	209	384	57
Future Volume (veh/h)	133	703	336	171	438	228	217	424	176	209	384	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	773	369	188	481	251	238	466	193	230	422	63
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1086	484	228	1175	524	338	659	294	273	856	382
Arrive On Green	0.10	0.31	0.31	0.13	0.33	0.33	0.10	0.19	0.19	0.15	0.24	0.24
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	3428	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	146	773	369	188	481	251	238	466	193	230	422	63
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1714	1763	1572	1767	1763	1572
Q Serve(g_s), s	6.6	15.8	17.2	8.4	8.6	10.3	5.5	10.1	9.2	10.3	8.4	2.6
Cycle Q Clear(g_c), s	6.6	15.8	17.2	8.4	8.6	10.3	5.5	10.1	9.2	10.3	8.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1086	484	228	1175	524	338	659	294	273	856	382
V/C Ratio(X)	0.80	0.71	0.76	0.83	0.41	0.48	0.70	0.71	0.66	0.84	0.49	0.16
Avail Cap(c_a), veh/h	337	1671	745	337	1671	745	823	1237	552	424	1237	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	24.9	25.4	34.5	20.9	21.5	35.5	30.9	30.6	33.4	26.5	24.3
Incr Delay (d2), s/veh	7.7	0.9	2.5	10.1	0.2	0.7	2.7	1.4	2.5	8.8	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.9	6.2	3.9	3.1	3.5	2.3	4.1	3.5	4.8	3.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	25.8	27.9	44.6	21.1	22.2	38.2	32.4	33.1	42.2	26.9	24.5
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1288			920			897			715	
Approach Delay, s/veh		28.4			26.2			34.1			31.6	
Approach LOS		C			C			C			C	

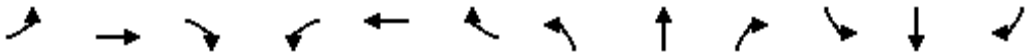
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	29.5	12.5	24.2	12.9	31.6	17.1	19.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	19.5	28.5	15.5	38.5	19.5	28.5
Max Q Clear Time (g_c+I1), s	10.4	19.2	7.5	10.4	8.6	12.3	12.3	12.1
Green Ext Time (p_c), s	0.2	5.8	0.6	2.5	0.2	3.6	0.4	3.1

Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	53	110	71	6	111	67	668	105	138	806	12
Future Volume (veh/h)	96	53	110	71	6	111	67	668	105	138	806	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	128	71	147	95	8	148	89	891	140	184	1075	16
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	204	111	175	378	25	461	114	1183	528	231	1415	631
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.07	0.34	0.34	0.13	0.41	0.41
Sat Flow, veh/h	402	358	561	1136	80	1480	1739	3469	1547	1739	3469	1547
Grp Volume(v), veh/h	346	0	0	95	0	156	89	891	140	184	1075	16
Grp Sat Flow(s),veh/h/ln	1320	0	0	1136	0	1560	1739	1735	1547	1739	1735	1547
Q Serve(g_s), s	11.0	0.0	0.0	0.0	0.0	4.8	3.2	14.3	4.1	6.4	16.7	0.4
Cycle Q Clear(g_c), s	15.8	0.0	0.0	6.0	0.0	4.8	3.2	14.3	4.1	6.4	16.7	0.4
Prop In Lane	0.37		0.42	1.00		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	490	0	0	378	0	486	114	1183	528	231	1415	631
V/C Ratio(X)	0.71	0.00	0.00	0.25	0.00	0.32	0.78	0.75	0.27	0.80	0.76	0.03
Avail Cap(c_a), veh/h	787	0	0	612	0	807	291	1630	727	402	1851	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	17.0	0.0	16.5	28.9	18.3	15.0	26.4	16.0	11.1
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.3	0.0	0.4	10.8	1.3	0.3	6.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	0.0	1.0	0.0	1.5	1.5	5.0	1.3	2.8	5.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	0.0	0.0	17.3	0.0	16.9	39.7	19.7	15.3	32.6	17.3	11.1
LnGrp LOS	C	A	A	B	A	B	D	B	B	C	B	B
Approach Vol, veh/h		346			251			1120			1275	
Approach Delay, s/veh		22.6			17.1			20.7			19.4	
Approach LOS		C			B			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.1	8.6	30.1		24.1	12.8	25.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	10.5	33.5		32.5	14.5	29.5				
Max Q Clear Time (g_c+I1), s		17.8	5.2	18.7		8.0	8.4	16.3				
Green Ext Time (p_c), s		1.7	0.1	6.2		1.2	0.2	5.1				

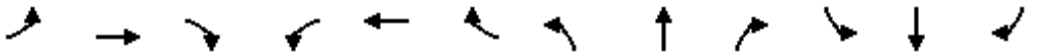
Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	249	19	121	157	45	9	111	217	24	62	10
Future Volume (veh/h)	26	249	19	121	157	45	9	111	217	24	62	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	30	286	22	139	180	52	10	128	249	28	71	11
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	546	629	48	489	512	148	676	198	385	207	404	52
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1158	1728	133	1080	1406	406	1327	572	1113	176	1169	149
Grp Volume(v), veh/h	30	0	308	139	0	232	10	0	377	110	0	0
Grp Sat Flow(s),veh/h/ln	1158	0	1861	1080	0	1812	1327	0	1685	1495	0	0
Q Serve(g_s), s	0.6	0.0	3.9	3.5	0.0	2.9	0.0	0.0	5.8	0.1	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	3.9	7.4	0.0	2.9	0.2	0.0	5.8	5.9	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.22	1.00		0.66	0.25		0.10
Lane Grp Cap(c), veh/h	546	0	678	489	0	660	676	0	583	662	0	0
V/C Ratio(X)	0.05	0.00	0.45	0.28	0.00	0.35	0.01	0.00	0.65	0.17	0.00	0.00
Avail Cap(c_a), veh/h	2083	0	3151	1924	0	3067	2719	0	3178	3010	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	7.5	10.3	0.0	7.2	6.7	0.0	8.6	7.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	0.3	0.0	0.3	0.0	0.0	1.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.8	0.5	0.0	0.6	0.0	0.0	1.5	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.5	0.0	8.0	10.7	0.0	7.5	6.7	0.0	9.8	7.2	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		338			371			387			110	
Approach Delay, s/veh		8.0			8.7			9.7			7.2	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		15.2		15.8		15.2		15.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		58.5		52.5		58.5		52.5				
Max Q Clear Time (g_c+I1), s		7.8		5.9		7.9		9.4				
Green Ext Time (p_c), s		2.9		1.9		0.7		1.9				

Intersection Summary												
HCM 6th Ctrl Delay			8.7									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	828	366	112	663	144	473	283	200	188	191	108
Future Volume (veh/h)	91	828	366	112	663	144	473	283	200	188	191	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	900	398	122	721	157	514	308	217	204	208	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	1585	707	151	1636	730	608	610	272	239	461	205
Arrive On Green	0.07	0.45	0.45	0.08	0.46	0.46	0.18	0.17	0.17	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	99	900	398	122	721	157	514	308	217	204	208	117
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.0	20.7	20.4	7.4	15.1	6.5	15.8	8.6	14.4	12.3	5.9	7.6
Cycle Q Clear(g_c), s	6.0	20.7	20.4	7.4	15.1	6.5	15.8	8.6	14.4	12.3	5.9	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	1585	707	151	1636	730	608	610	272	239	461	205
V/C Ratio(X)	0.79	0.57	0.56	0.81	0.44	0.22	0.85	0.50	0.80	0.86	0.45	0.57
Avail Cap(c_a), veh/h	258	1585	707	284	1636	730	959	1212	541	454	1132	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	22.6	22.5	49.4	20.1	17.8	43.8	41.3	43.7	46.6	44.2	44.9
Incr Delay (d2), s/veh	10.5	1.5	3.2	9.7	0.9	0.7	4.2	0.6	5.3	8.5	0.7	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.1	7.7	3.5	5.8	2.4	6.9	3.7	5.9	5.8	2.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	24.1	25.8	59.2	20.9	18.4	48.0	41.9	49.0	55.1	44.9	47.4
LnGrp LOS	E	C	C	E	C	B	D	D	D	E	D	D
Approach Vol, veh/h		1397			1000			1039			529	
Approach Delay, s/veh		27.2			25.2			46.4			49.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	53.5	23.8	18.7	12.2	55.1	19.2	23.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	49.0	30.5	35.0	15.9	50.6	28.0	37.5
Max Q Clear Time (g_c+I1), s	9.4	22.7	17.8	9.6	8.0	17.1	14.3	16.4
Green Ext Time (p_c), s	0.2	7.6	1.5	1.5	0.1	5.2	0.4	2.4

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

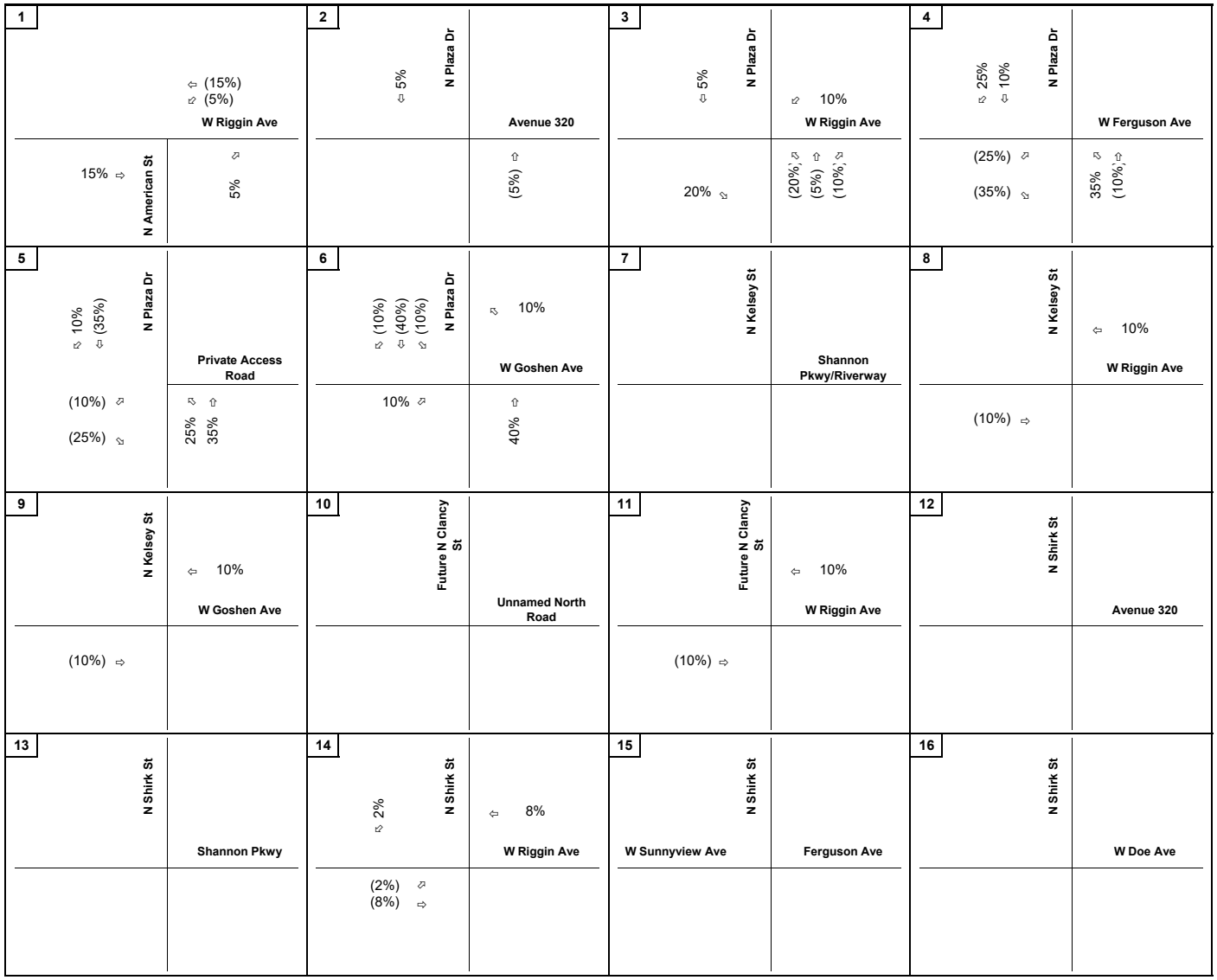
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	193	177	108	143	40	228	571	252	39	371	36
Future Volume (veh/h)	38	193	177	108	143	40	228	571	252	39	371	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	205	188	115	152	43	243	607	268	41	395	38
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	638	540	143	545	154	277	1352	603	58	917	409
Arrive On Green	0.03	0.34	0.34	0.08	0.39	0.39	0.16	0.38	0.38	0.03	0.26	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1402	397	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	40	205	188	115	0	195	243	607	268	41	395	38
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1799	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.4	8.8	9.6	6.9	0.0	8.1	14.5	13.9	13.7	2.5	10.1	2.0
Cycle Q Clear(g_c), s	2.4	8.8	9.6	6.9	0.0	8.1	14.5	13.9	13.7	2.5	10.1	2.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	57	638	540	143	0	699	277	1352	603	58	917	409
V/C Ratio(X)	0.70	0.32	0.35	0.81	0.00	0.28	0.88	0.45	0.44	0.70	0.43	0.09
Avail Cap(c_a), veh/h	172	638	540	222	0	699	386	1352	603	172	917	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	26.5	26.8	49.1	0.0	22.7	44.9	25.1	25.1	52.0	33.6	30.6
Incr Delay (d2), s/veh	14.0	1.3	1.8	11.3	0.0	1.0	15.5	1.1	2.4	14.4	1.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.0	3.7	3.4	0.0	3.4	7.3	5.7	5.3	1.3	4.4	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	27.8	28.5	60.4	0.0	23.7	60.3	26.2	27.4	66.3	35.1	31.1
LnGrp LOS	E	C	C	E	A	C	E	C	C	E	D	C
Approach Vol, veh/h		433			310			1118			474	
Approach Delay, s/veh		31.7			37.4			33.9			37.5	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	41.5	21.4	32.5	8.0	46.7	8.0	45.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	37.0	23.5	28.0	10.5	40.0	10.5	41.0
Max Q Clear Time (g_c+I1), s	8.9	11.6	16.5	12.1	4.4	10.1	4.5	15.9
Green Ext Time (p_c), s	0.1	1.6	0.4	2.1	0.0	1.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

H – Planned/Approved Projects and Improvements

PROJECT GOLDBAR



Legend

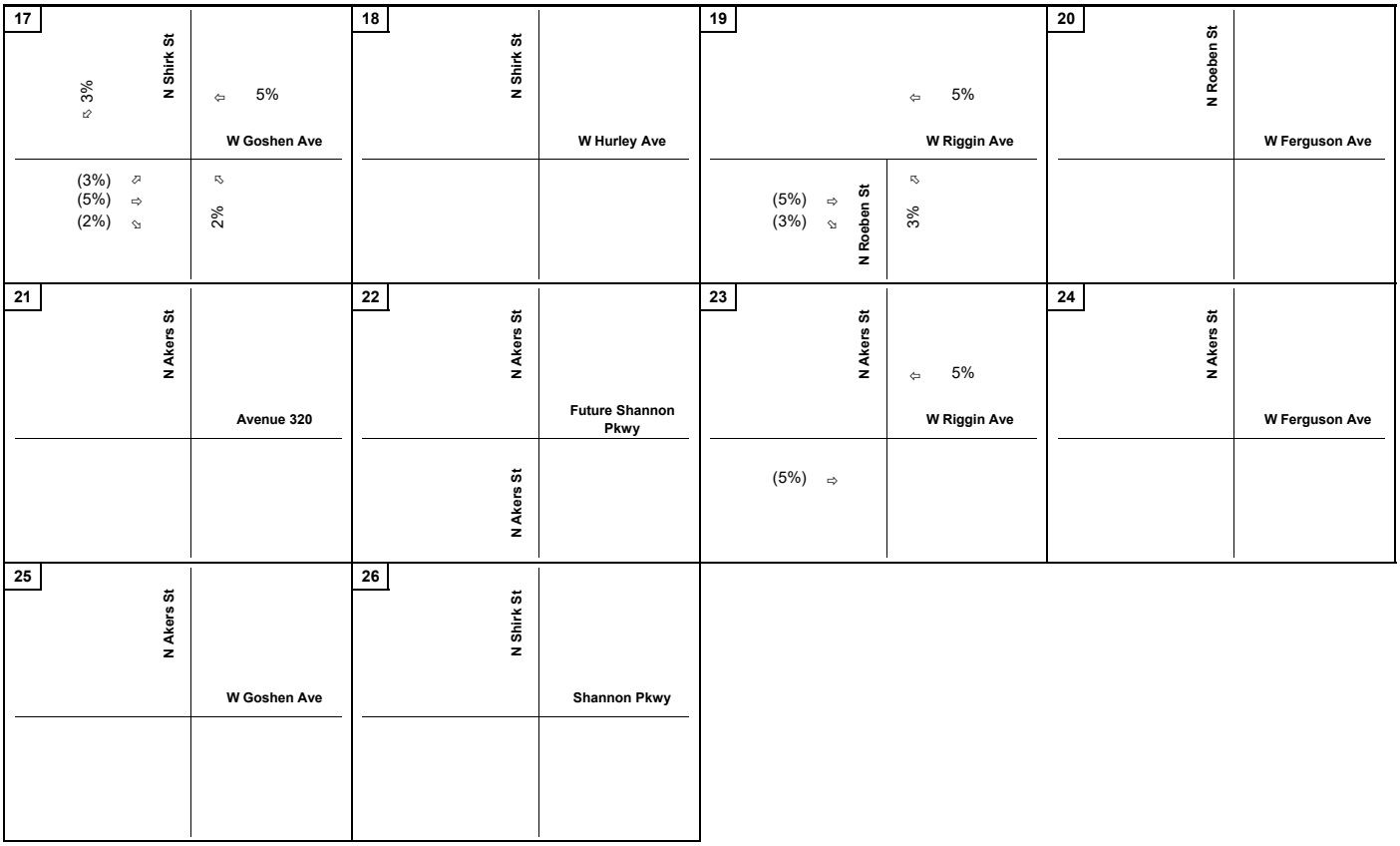
X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

Project Goldbar Trip Distribution (PC) - Study Intersections

PROJECT GOLDBAR



Legend

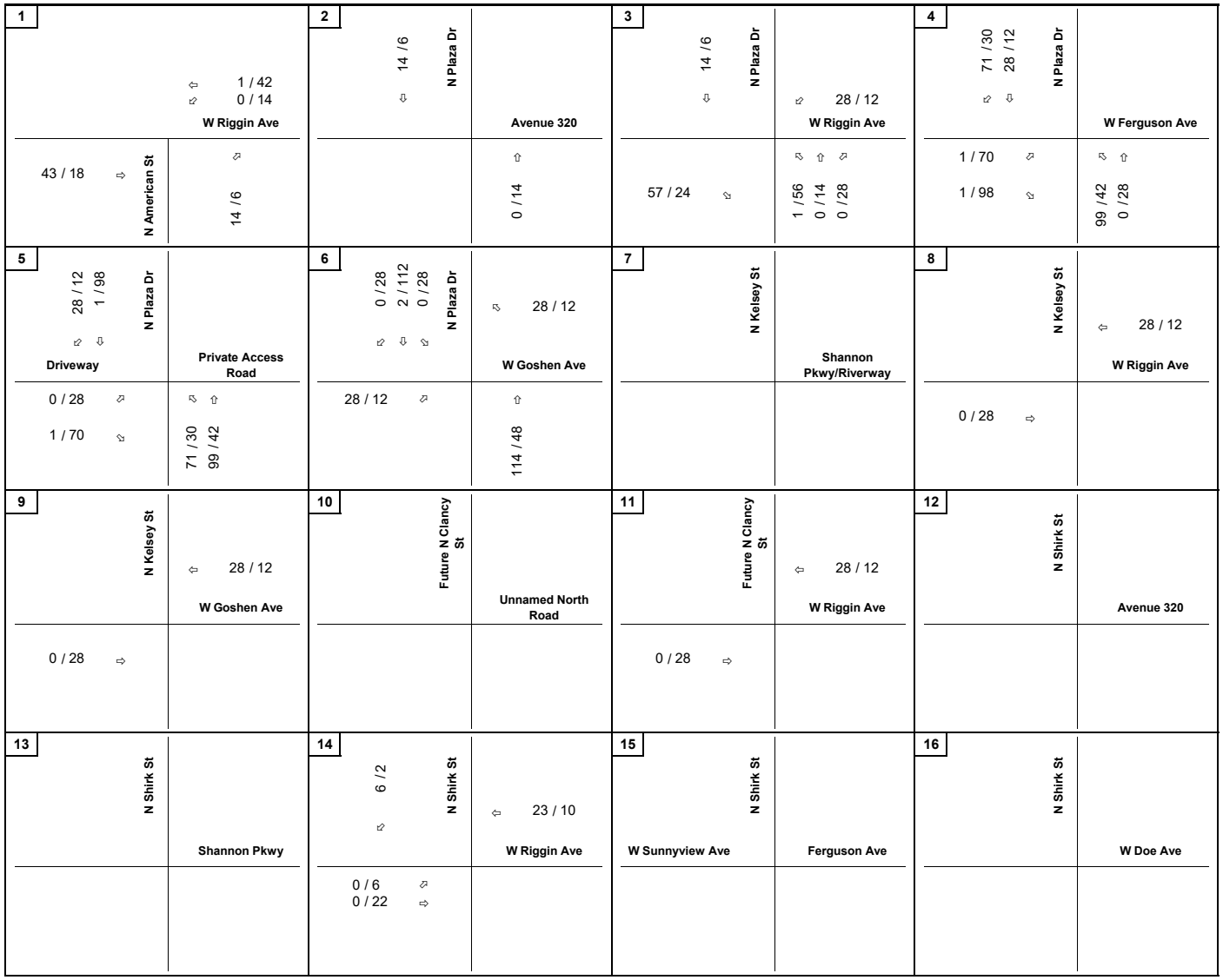
X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

Project Goldbar Project Trip Distribution (PC) - Study Intersections

PROJECT GOLDBAR



Legend

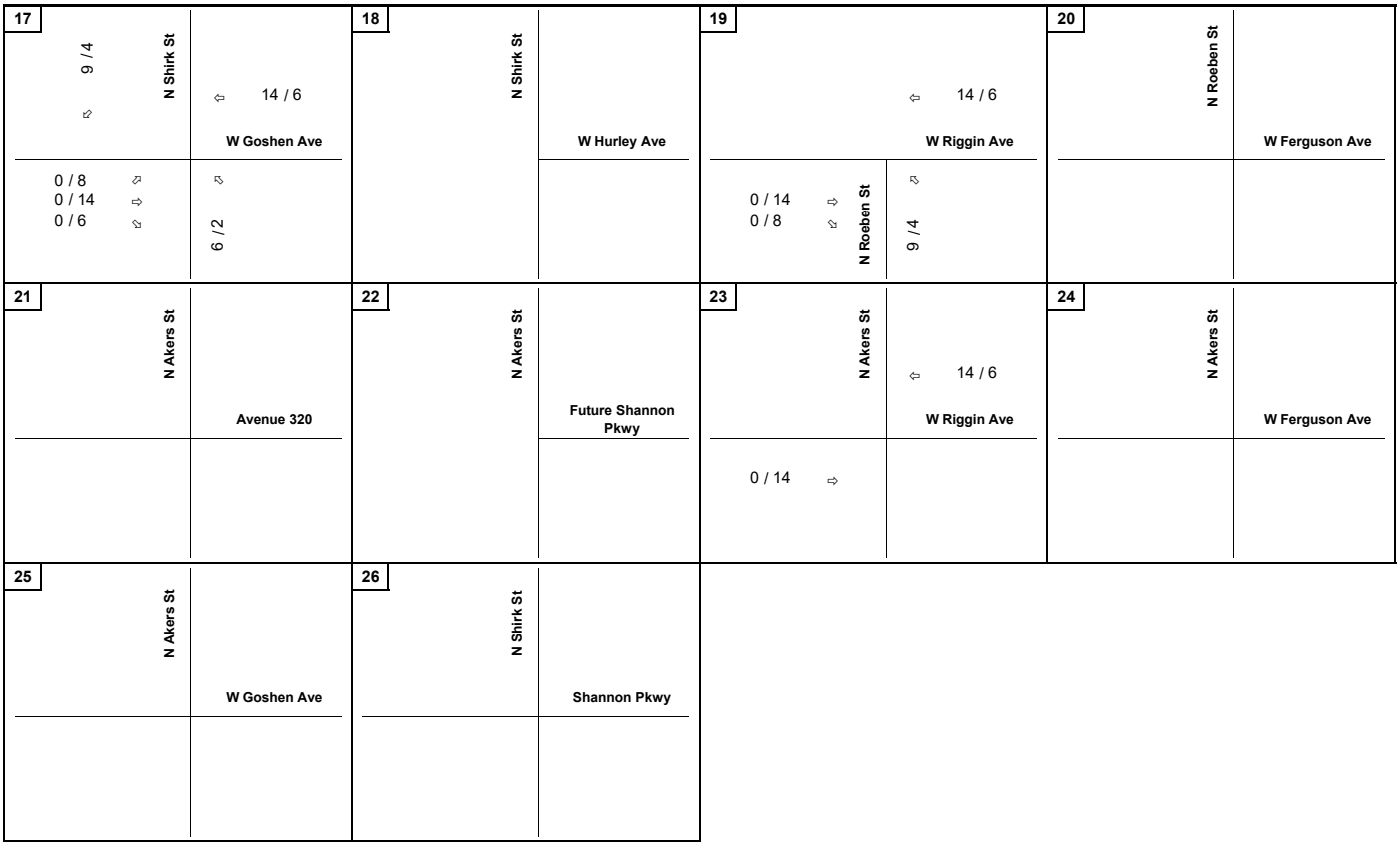
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Project Goldbar Project Trip Assignment (PC)- Study Intersections

PROJECT GOLDBAR



Legend

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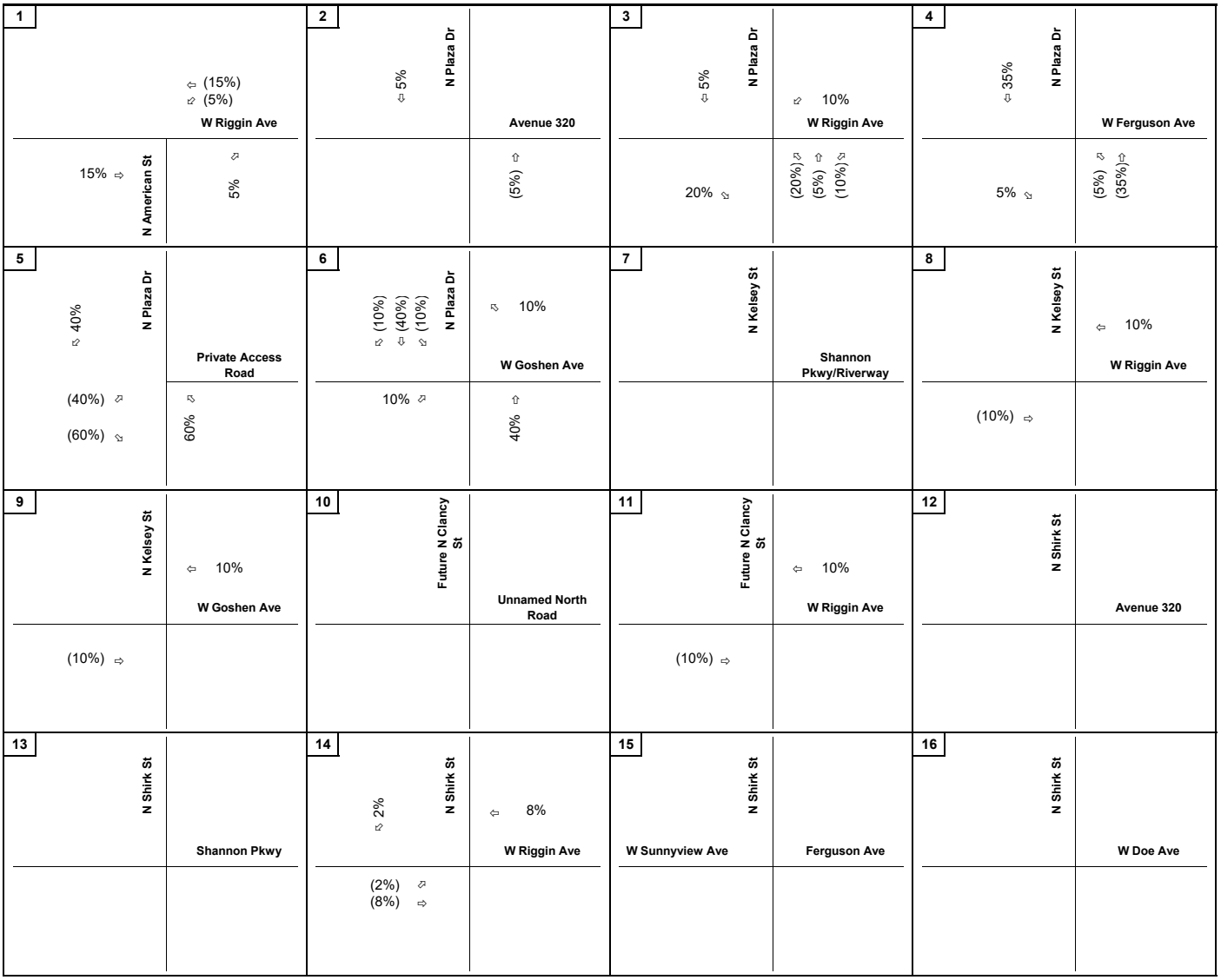
NOT TO SCALE

Kimley»Horn

Project Goldbar Project Trip Assignment (PC)- Study Intersections

MID-VALLEY LOGISTICS CENTER



Legend

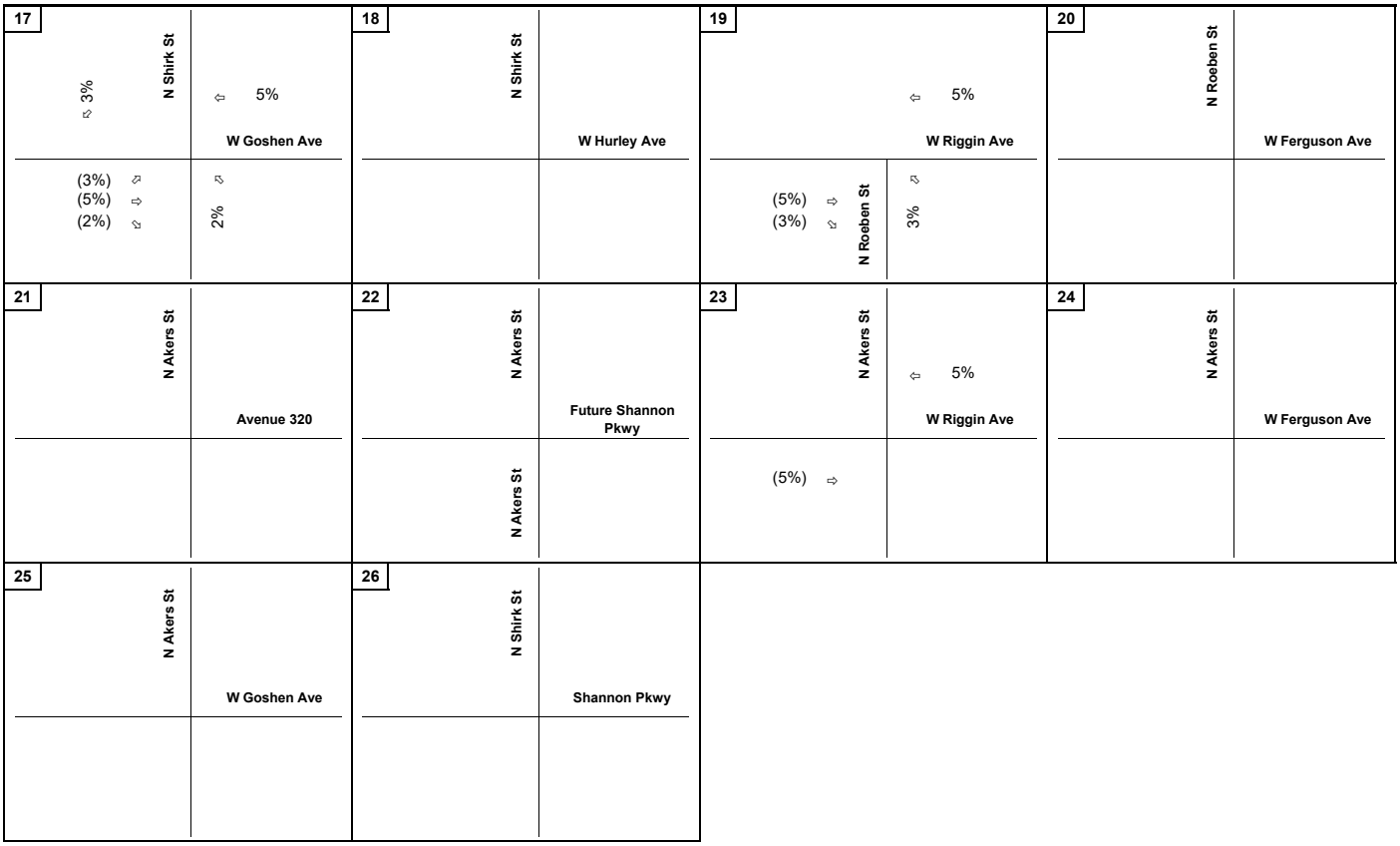
X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

Mid-Valley Logistics Center Project Trip Distribution (PC) - Study Intersections

MID-VALLEY LOGISTICS CENTER



Legend

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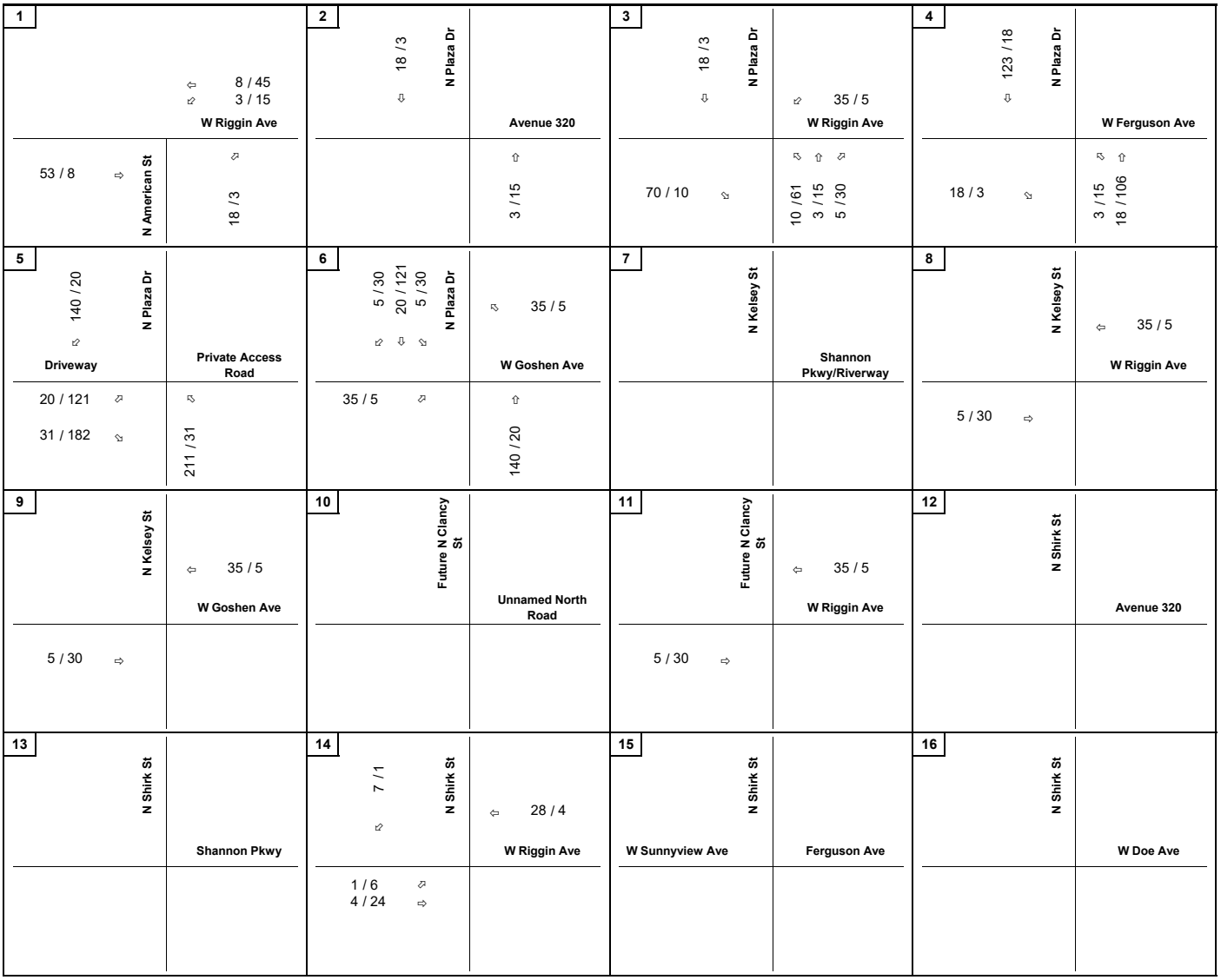
NOT TO SCALE

Kimley»Horn

Mid-Valley Logistics Center Project Trip Distribution (PC) - Study Intersections

MID-VALLEY LOGISTICS CENTER



Legend

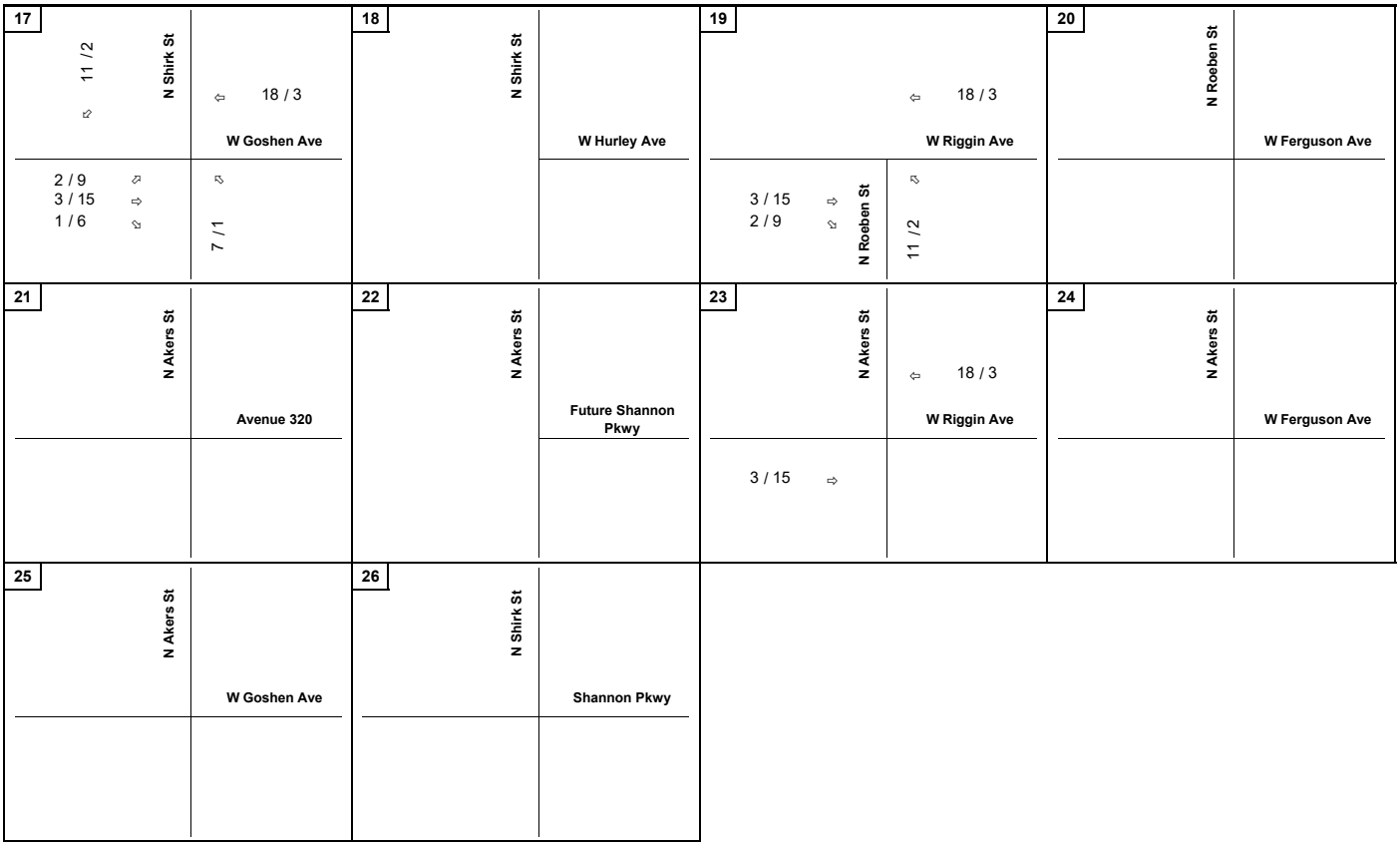
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Mid-Valley Logistics Center Project Trip Assignment (PC)- Study Intersections

MID-VALLEY LOGISTICS CENTER



Legend

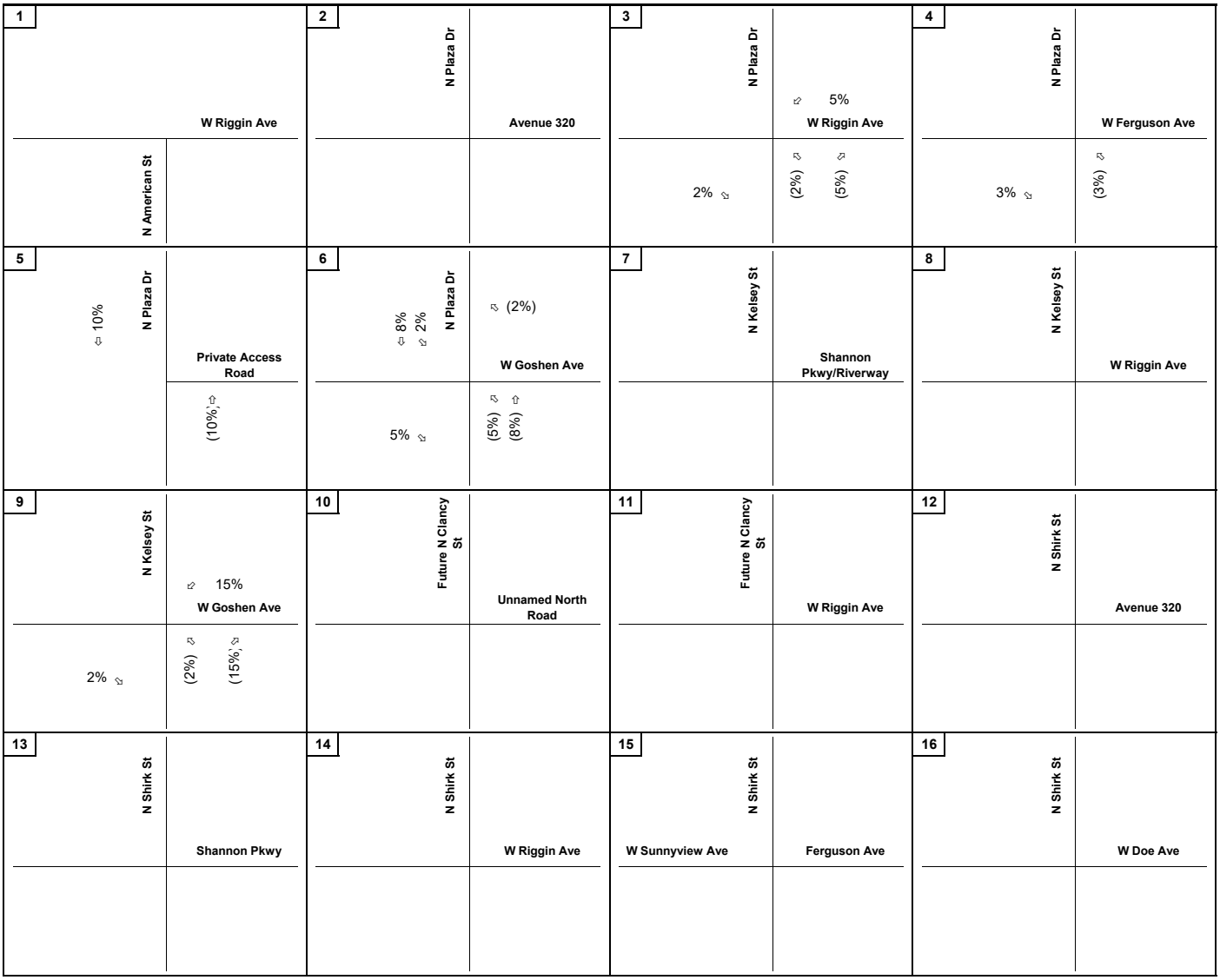
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Mid-Valley Logistics Center Project Trip Assignment (PC)- Study Intersections

CROWLEY PARK OFFICE CAMPUS



Legend

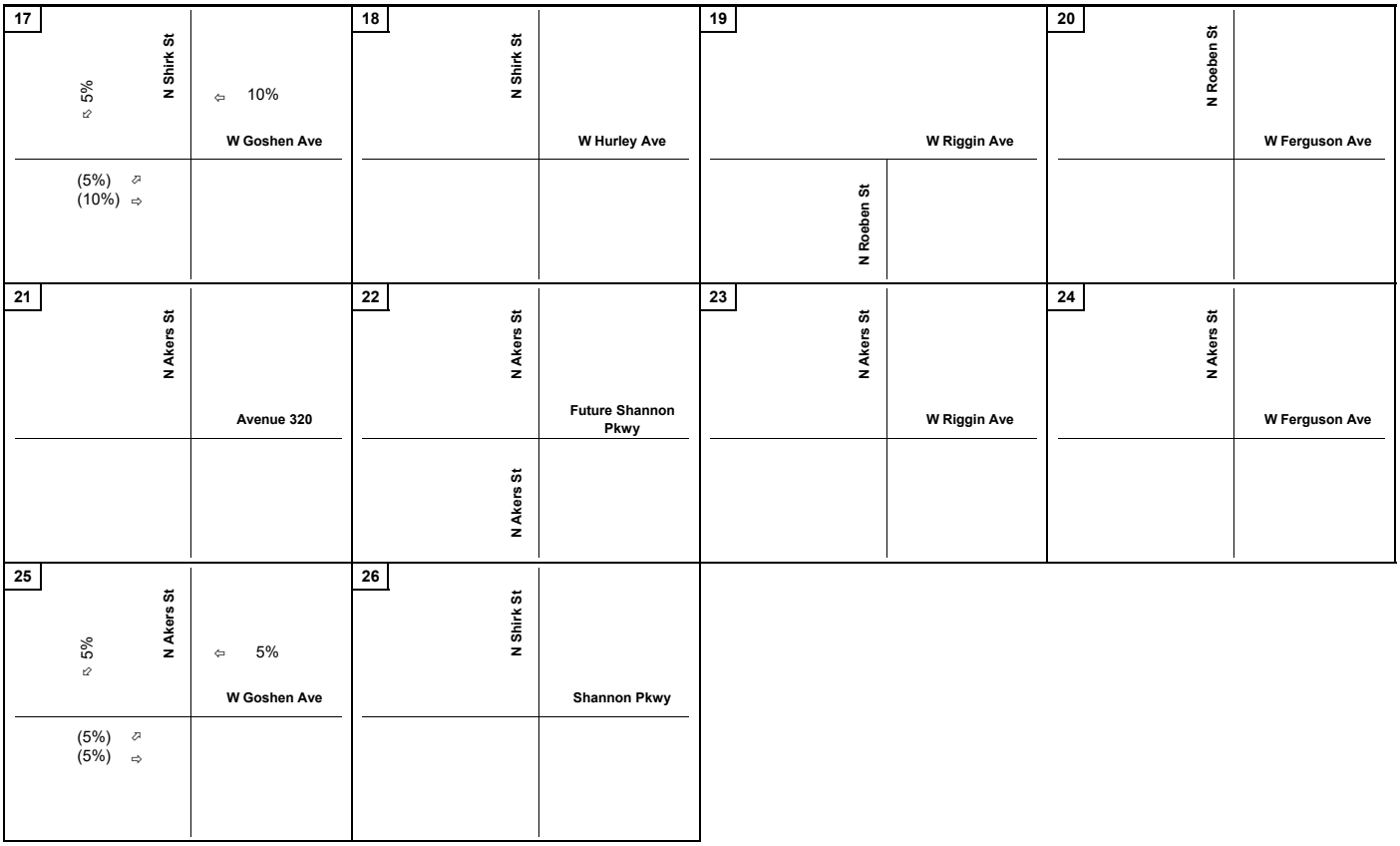
X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

Crowley Park Office Campus Project Trip Distribution (PC) - Study Intersections

CROWLEY PARK OFFICE CAMPUS



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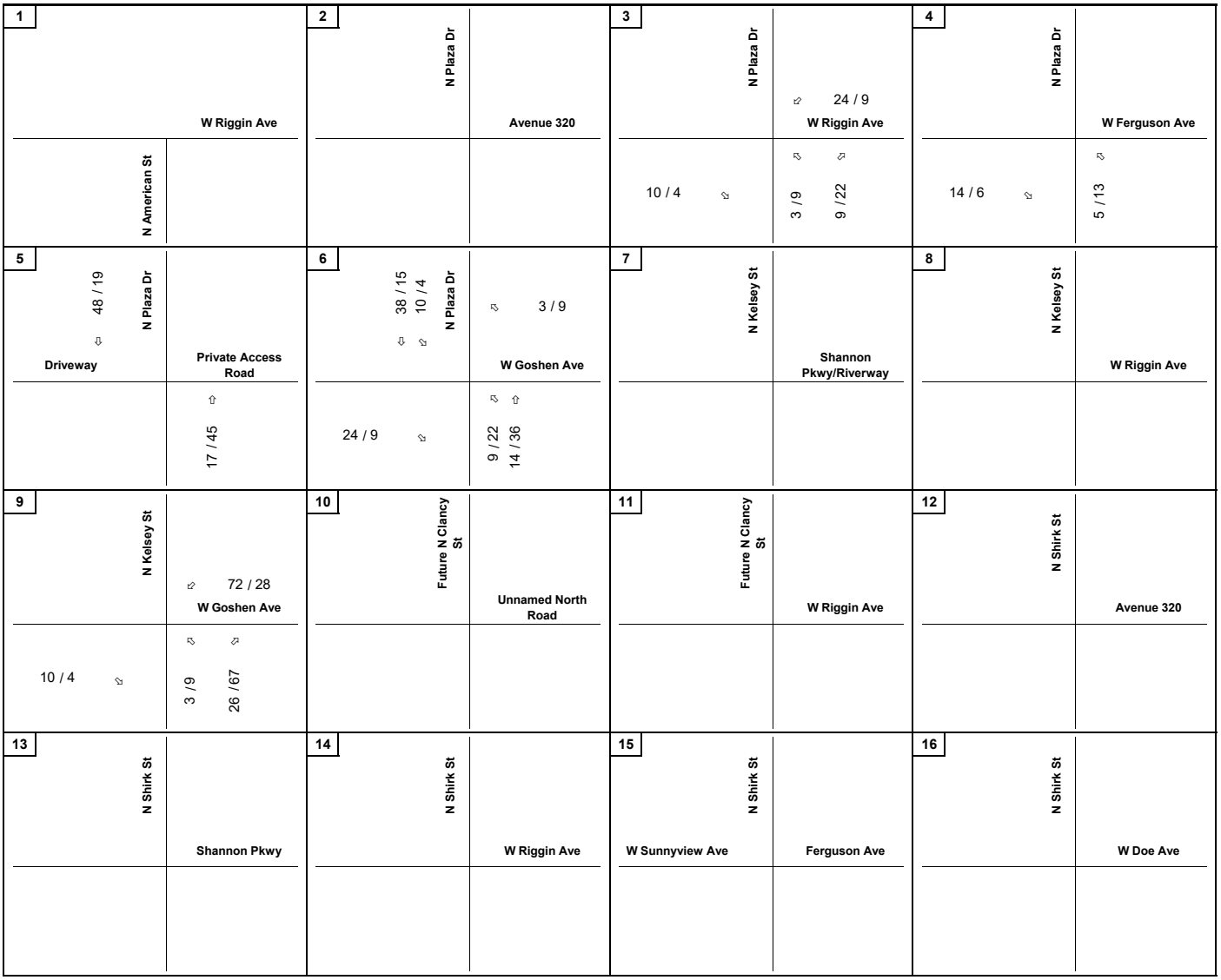
NOT TO SCALE

Kimley»Horn

Crowley Park Office Campus Project Trip Distribution (PC) - Study Intersections

CROWLEY PARK OFFICE CAMPUS



Legend

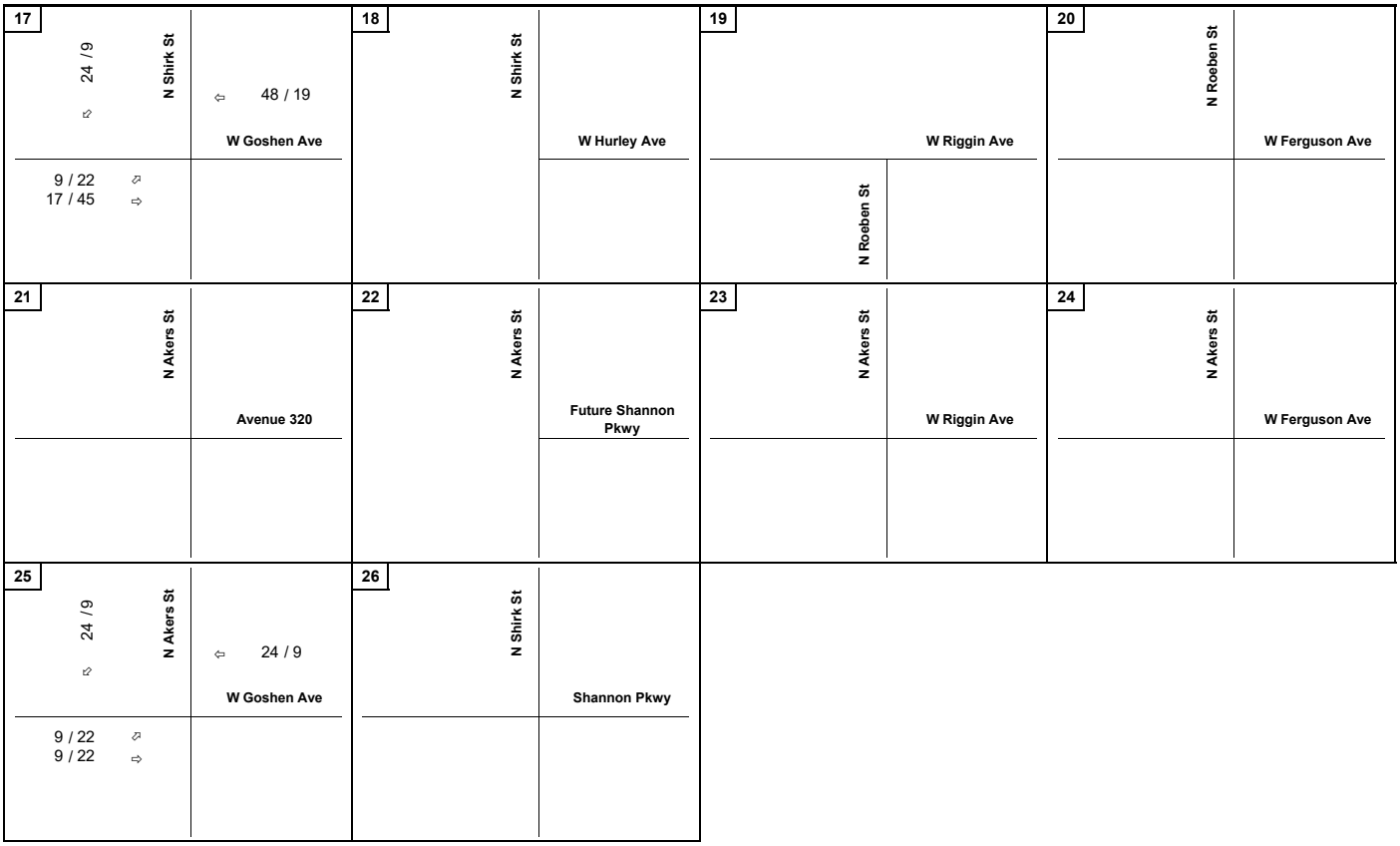
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Crowley Park Office Campus Project Trip Assignment (PC)- Study Intersections

CROWLEY PARK OFFICE CAMPUS

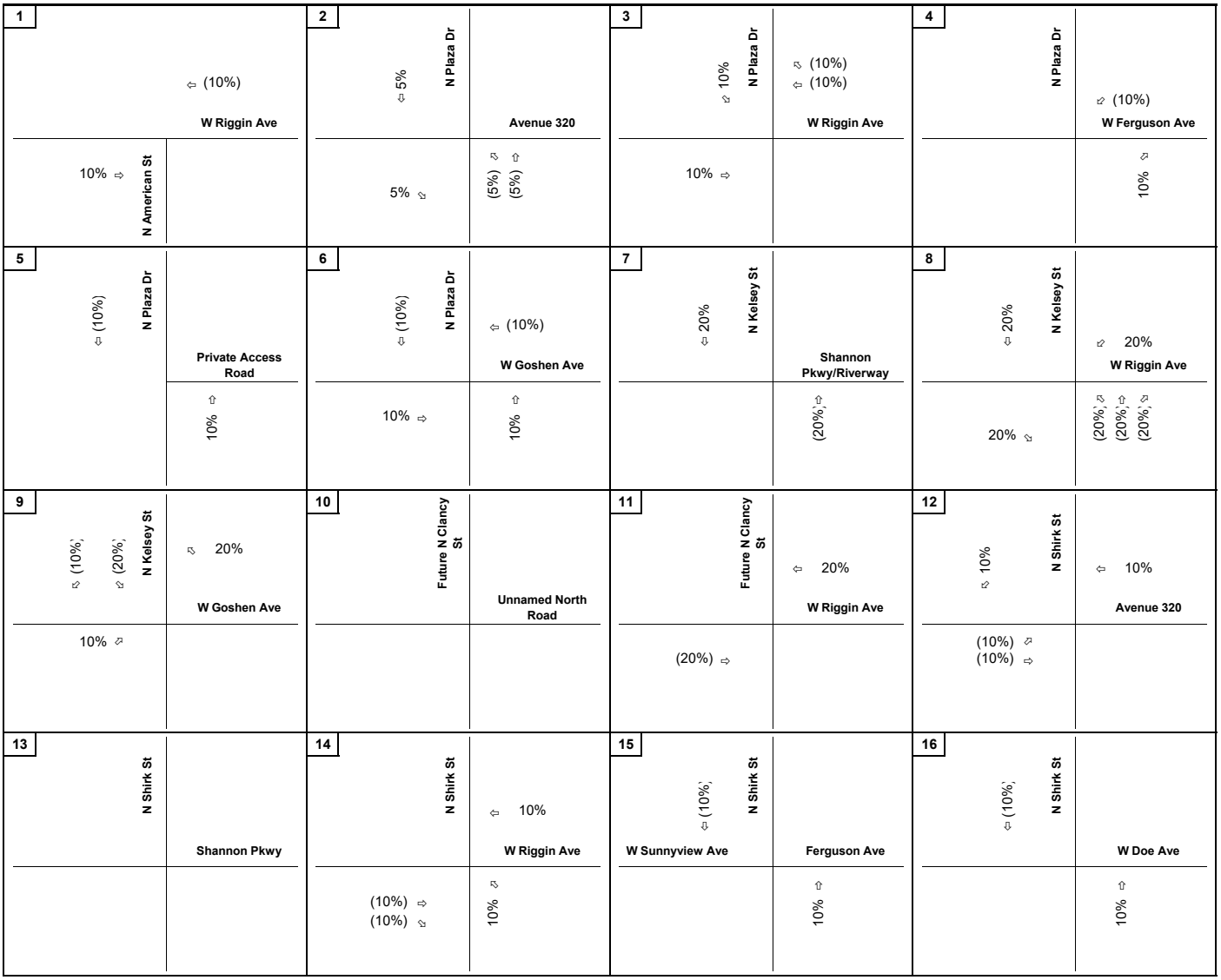


Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

SPR 21-150



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

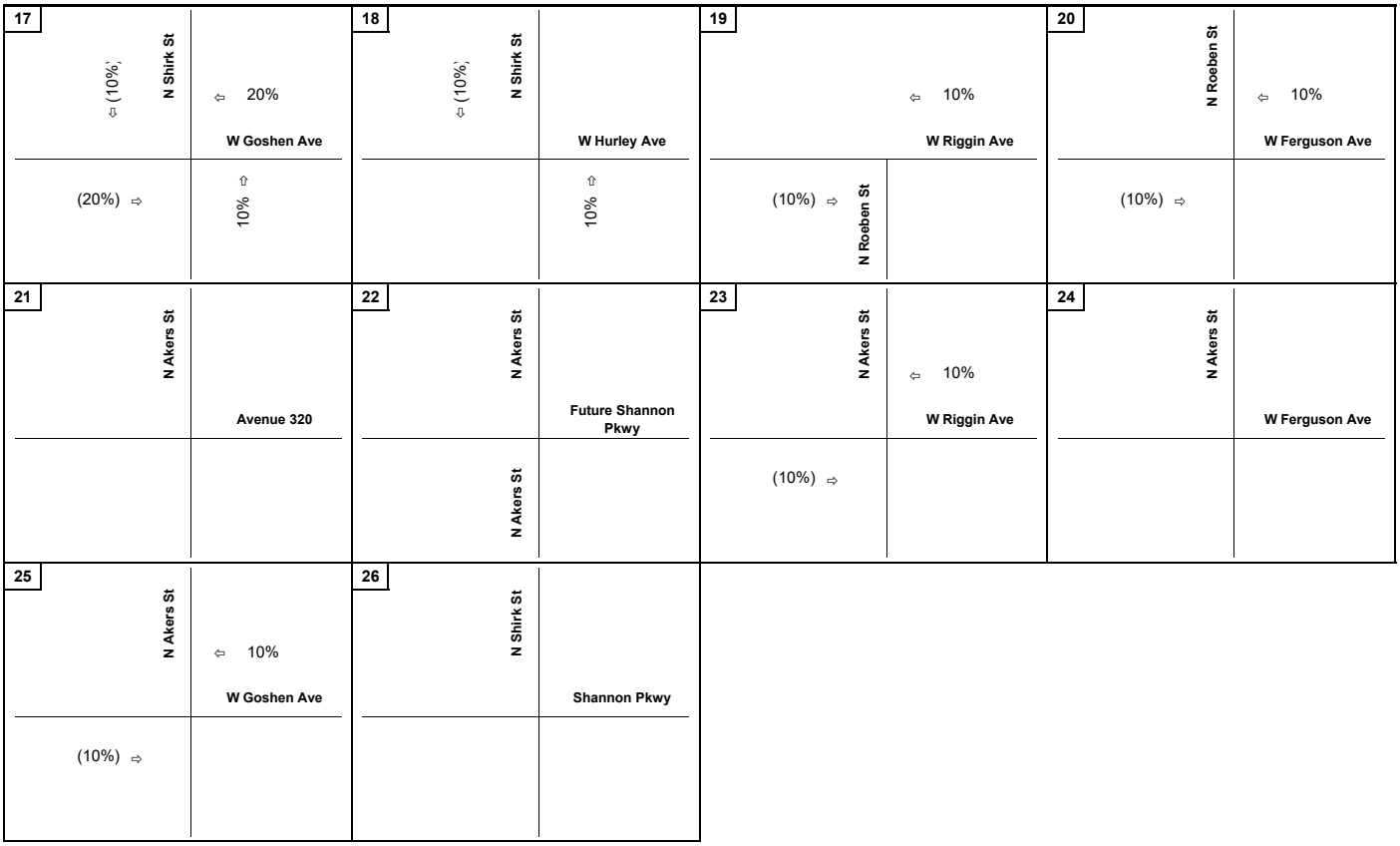
NOT TO SCALE

Kimley»Horn

SPR 21-150 Project Trip Distribution (PC) - Study Intersections

K:\SND_TPTO\195170025_Project Ritchie\ANALYSIS\EXCEL\[Shirk and Riggin Industrial Park_CP01_.xls]4 Dist Figure 1-16

SPR 21-150



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NOT TO SCALE

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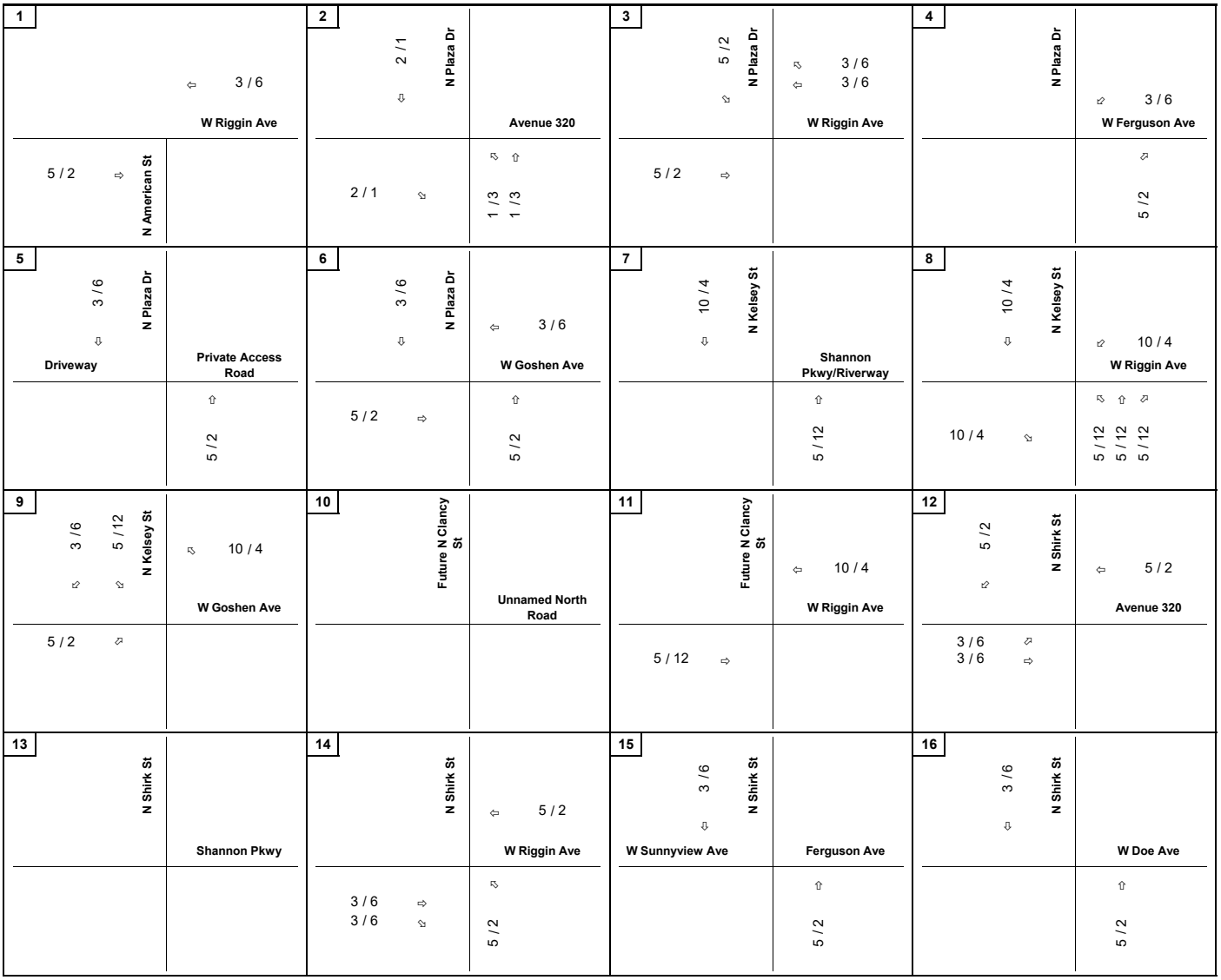

Legend

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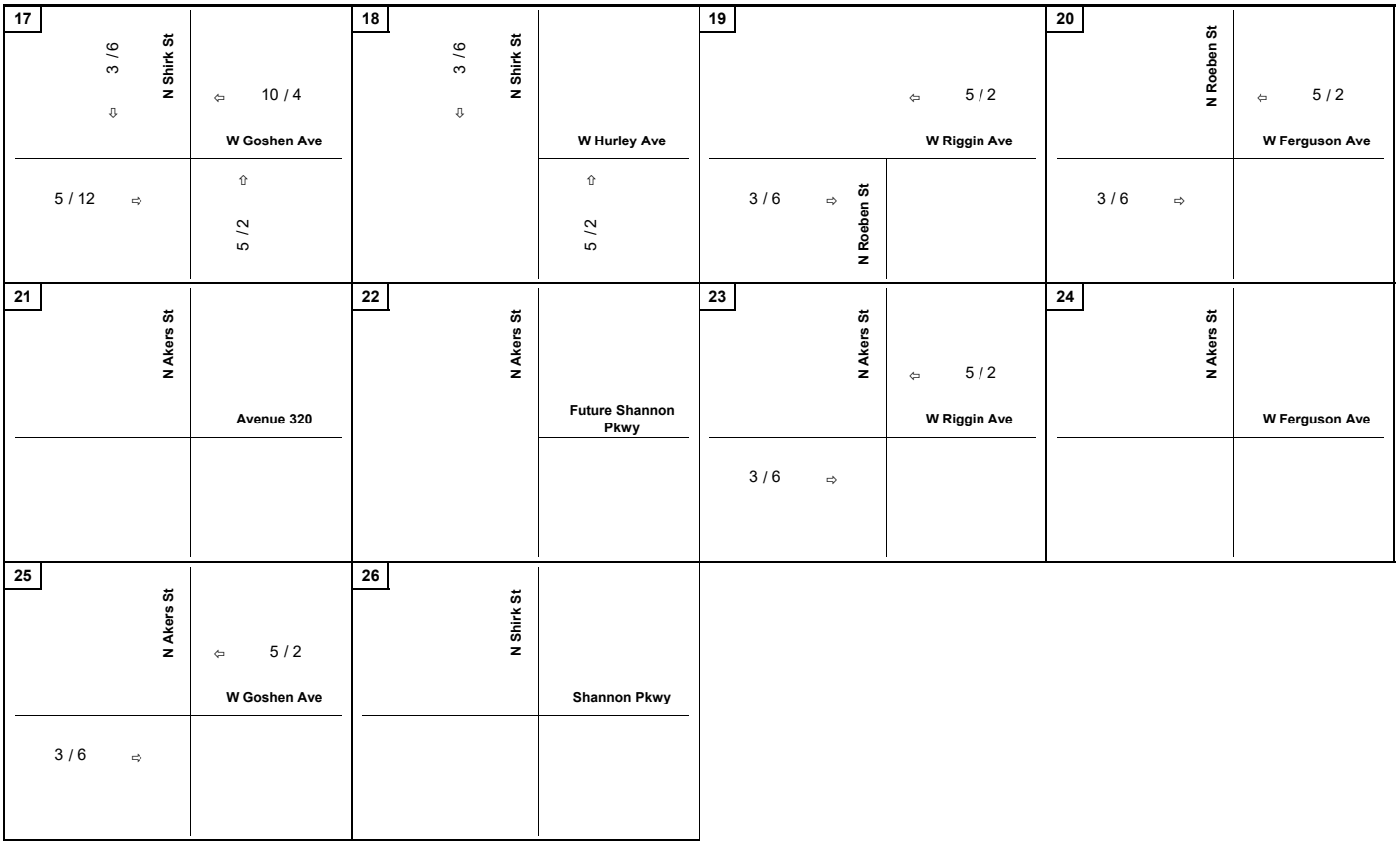
NOT TO SCALE

Kimley»Horn

SPR 21-150 Project Trip Assignment (PC)- Study Intersections

SPR 21-150



Legend

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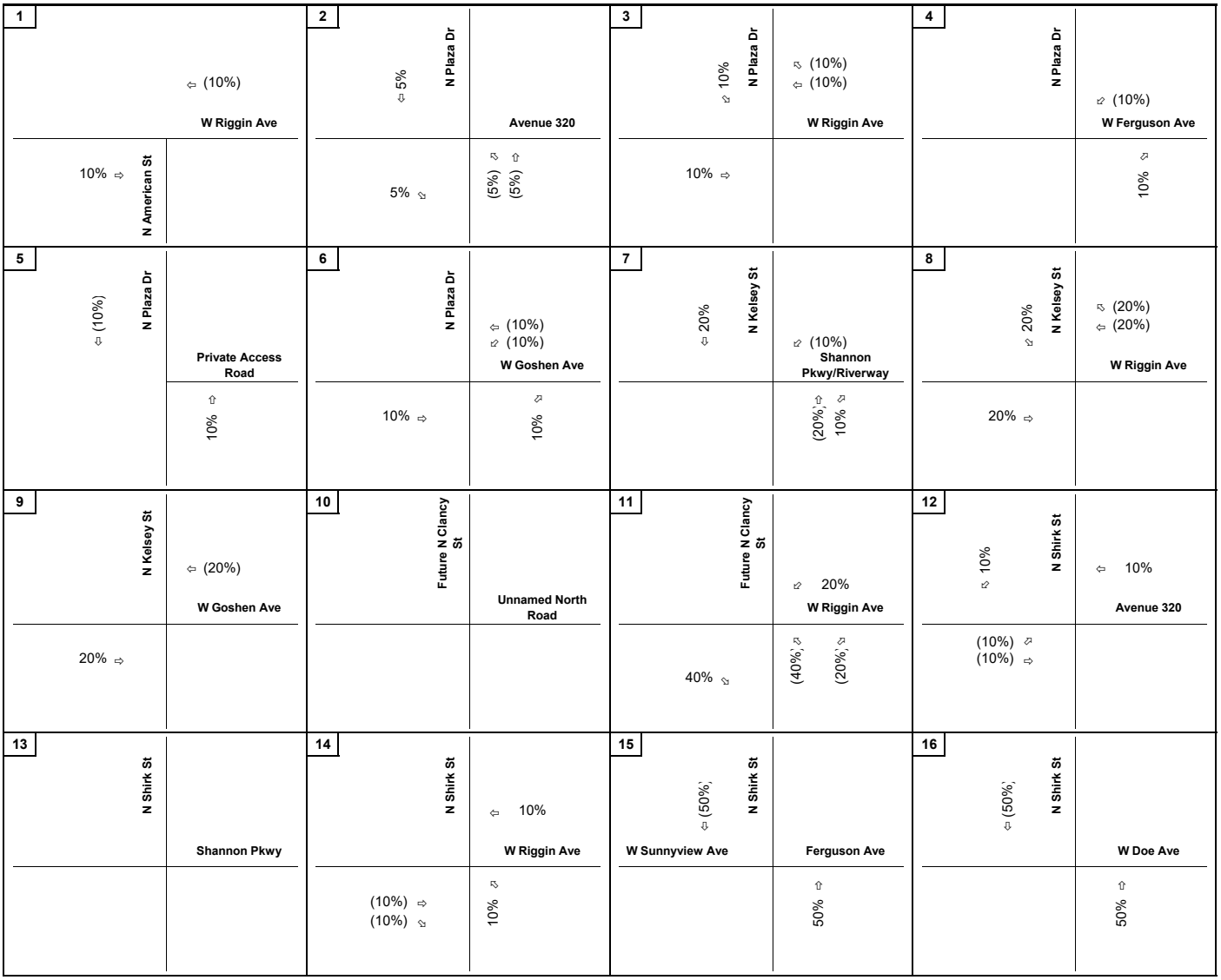
NOT TO SCALE

SPR 21-189



Legend

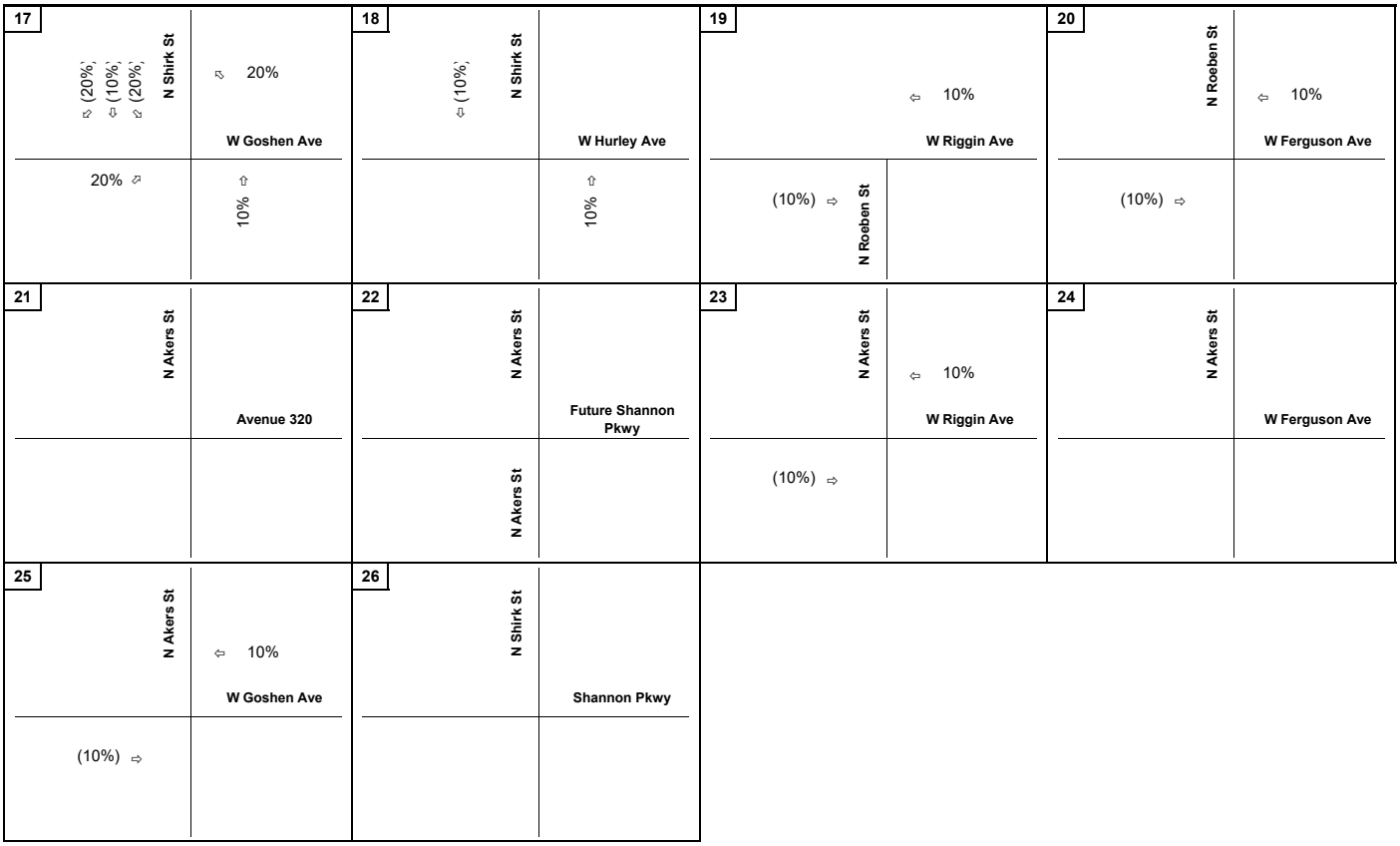
X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

SPR 21-189 Project Trip Distribution (PC) - Study Intersections

SPR 21-189



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NOT TO SCALE

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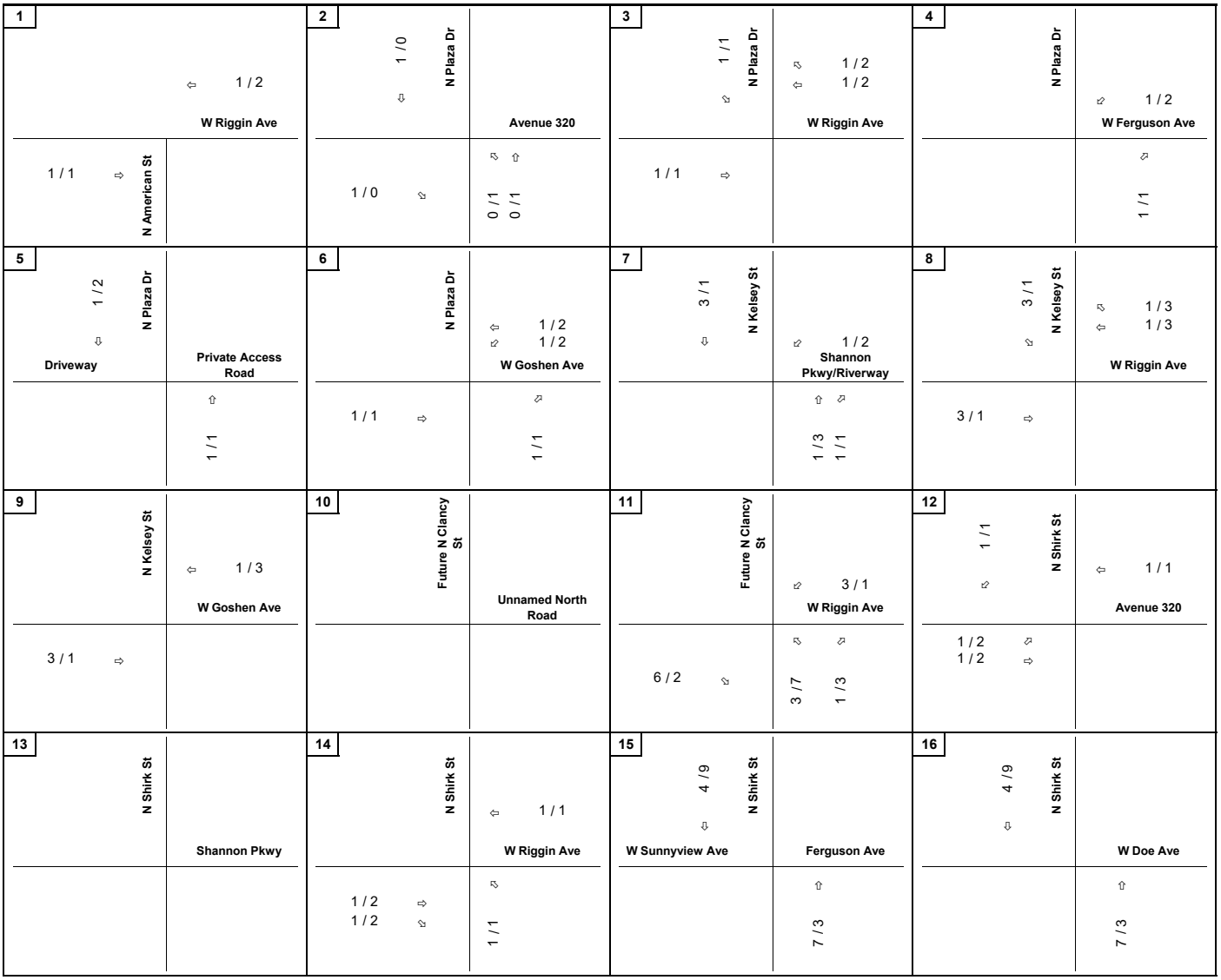

Legend

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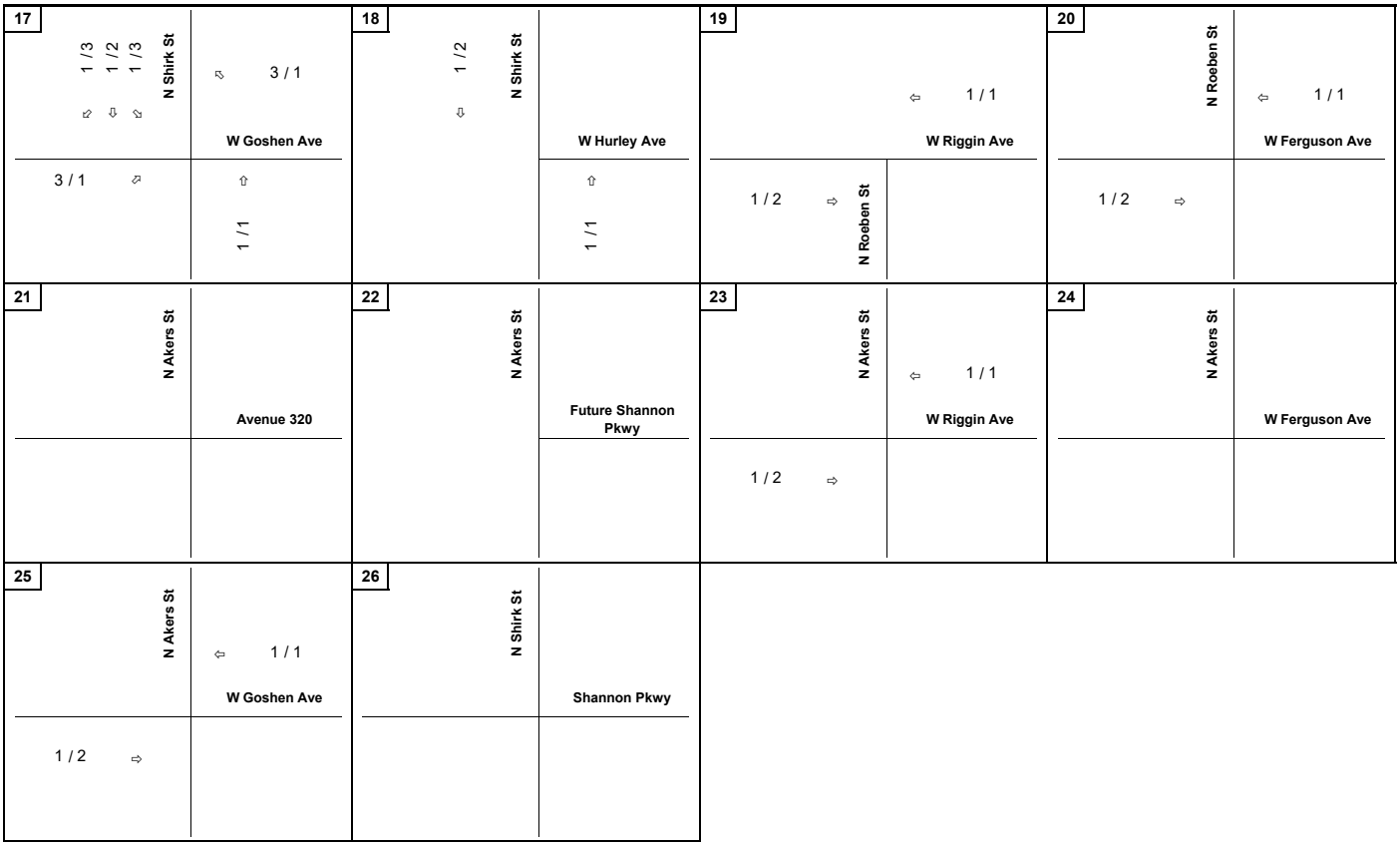
NOT TO SCALE

Kimley»Horn

SPR 21-189 Project Trip Assignment (PC)- Study Intersections

SPR 21-189

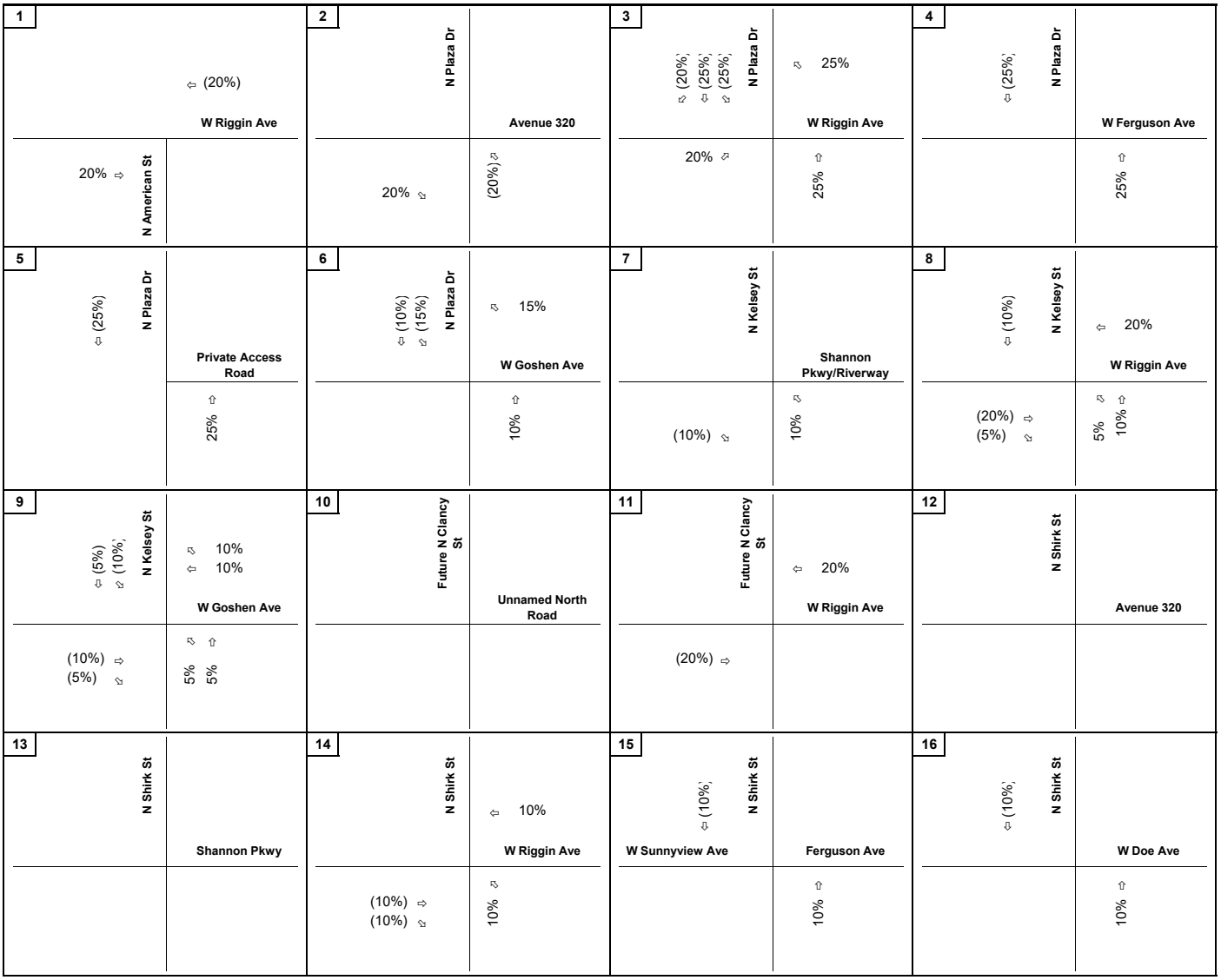


Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

SPR 21-231



Legend

X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

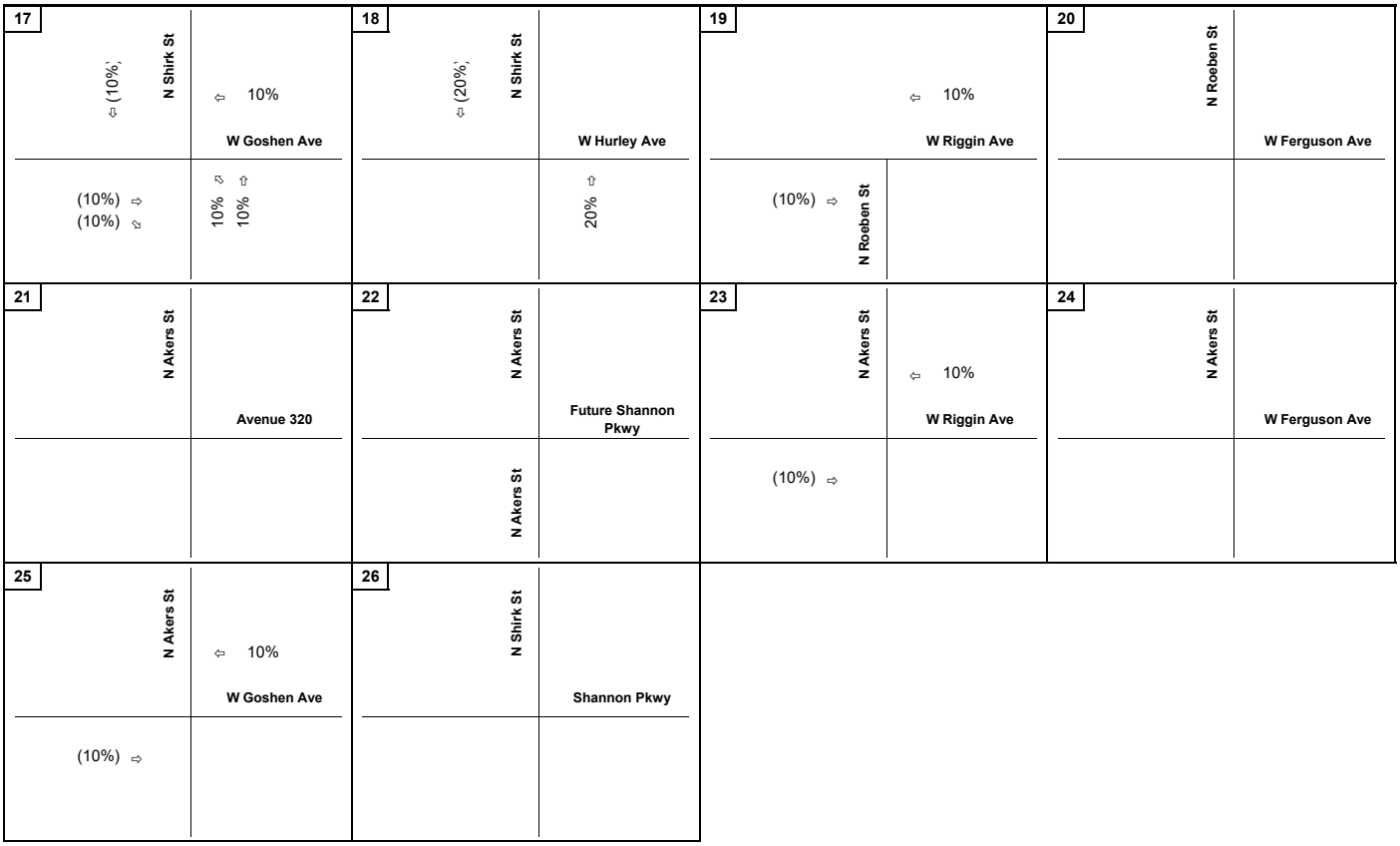
NOT TO SCALE

Kimley»Horn

SPR 21-231 Project Trip Distribution (PC) - Study Intersections

K:\SND_TPTO\195170025_Project Ritchie\ANALYSIS\EXCEL\[Shirk and Riggin Industrial Park_CP01_.xls]6 Dist Figure 1-16

SPR 21-231



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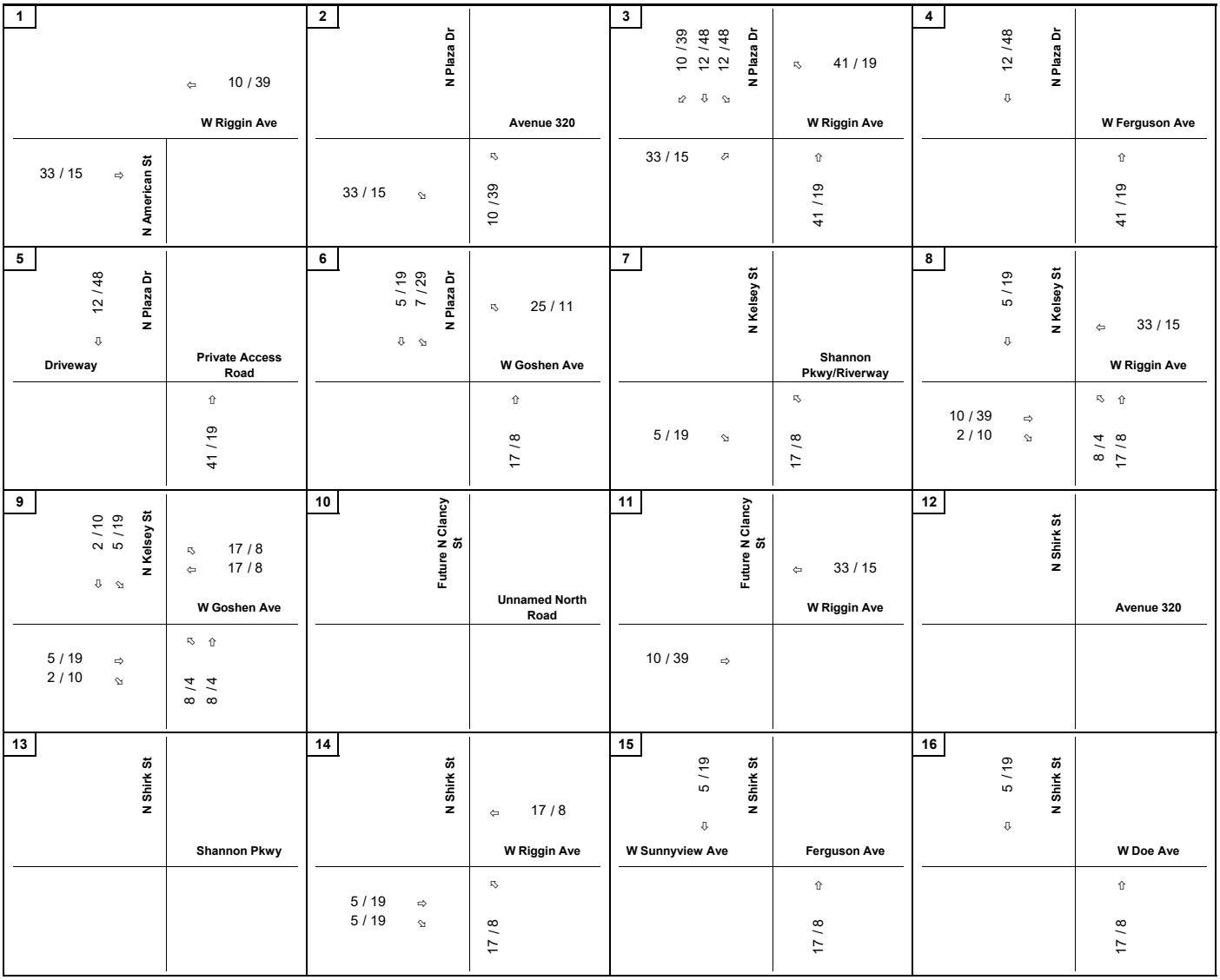
NOT TO SCALE

SPR 21-231



Legend

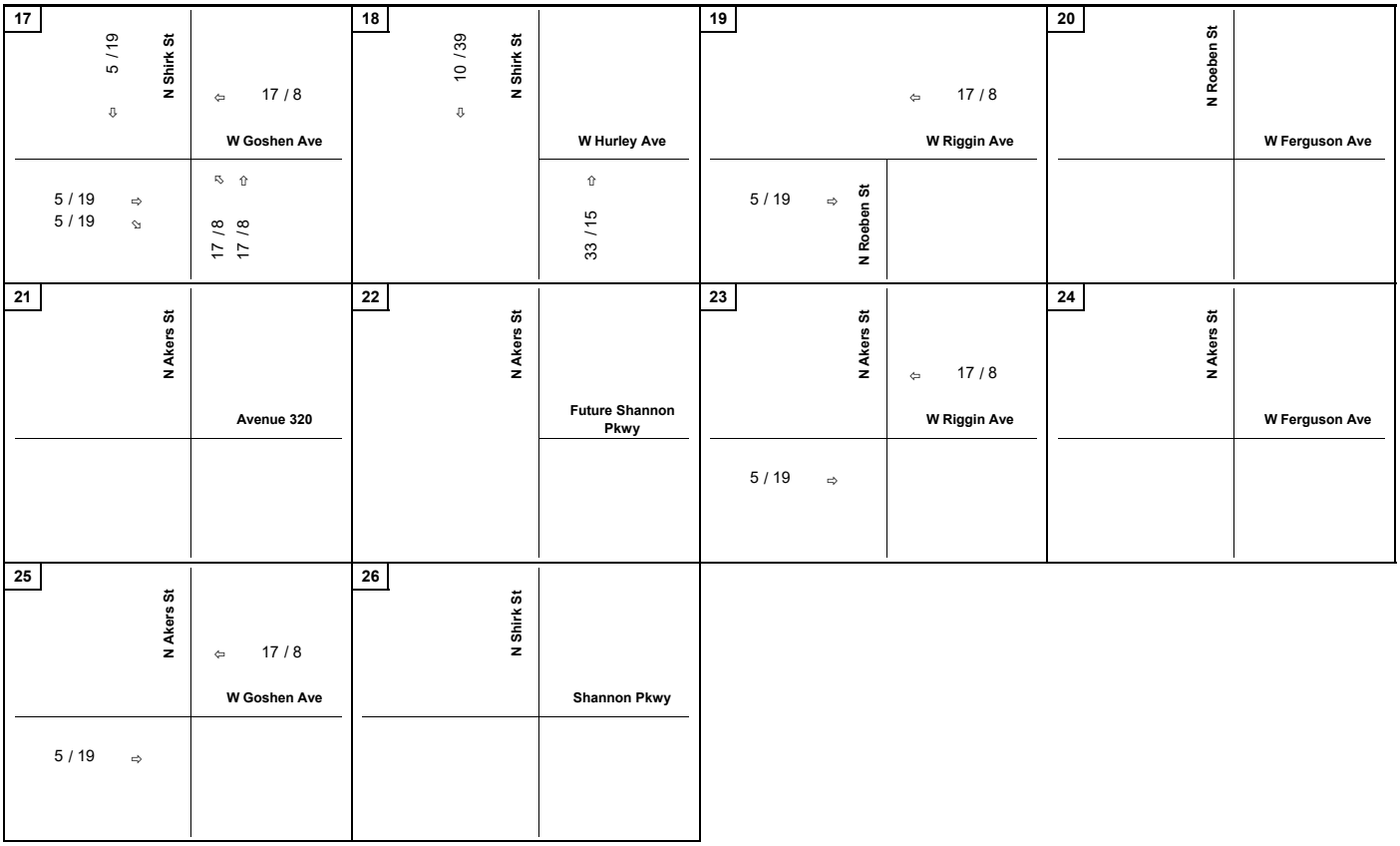
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

SPR 21-231 Project Trip Assignment (PC)- Study Intersections

SPR 21-231

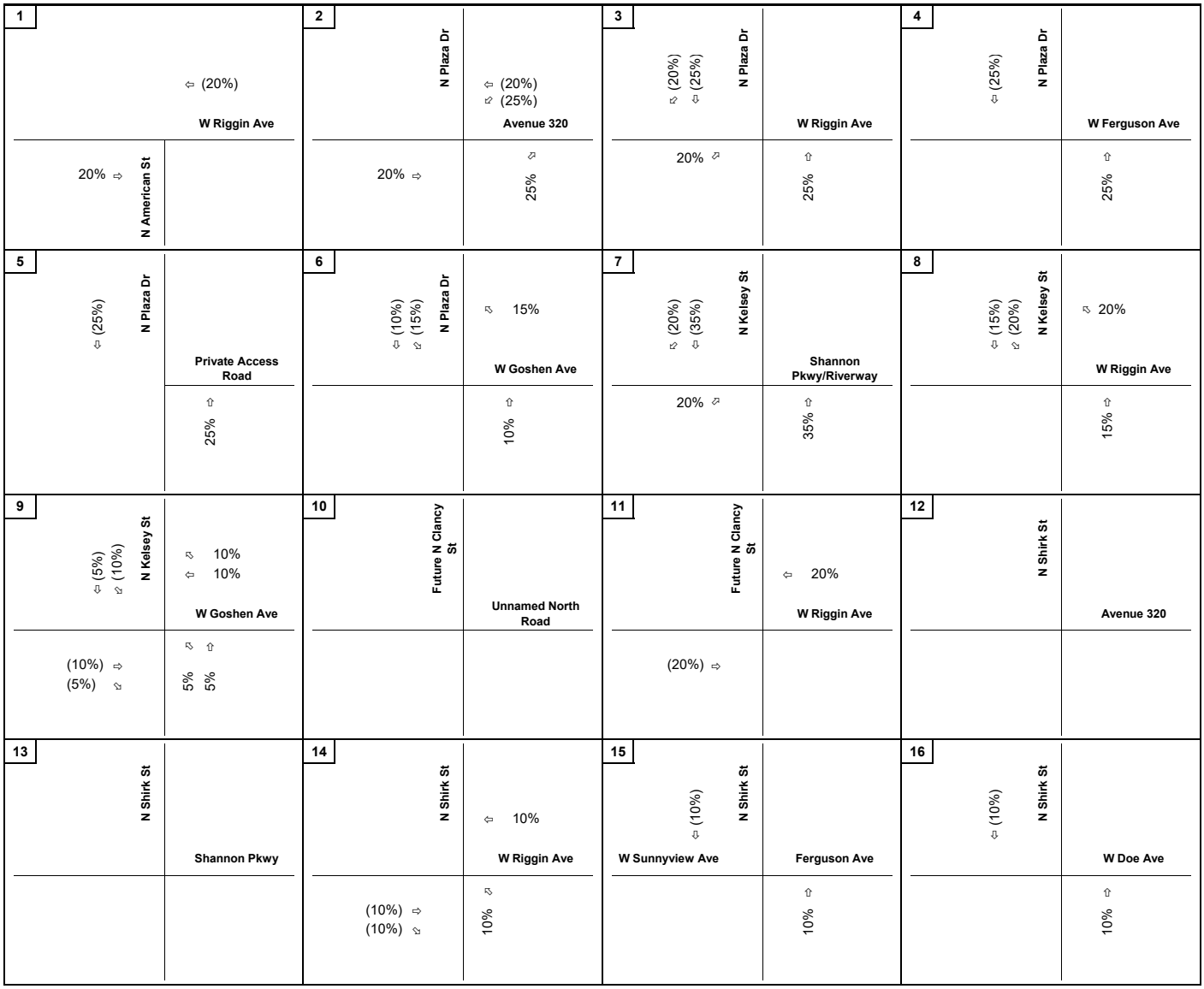


Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

SPR 20-185



Legend

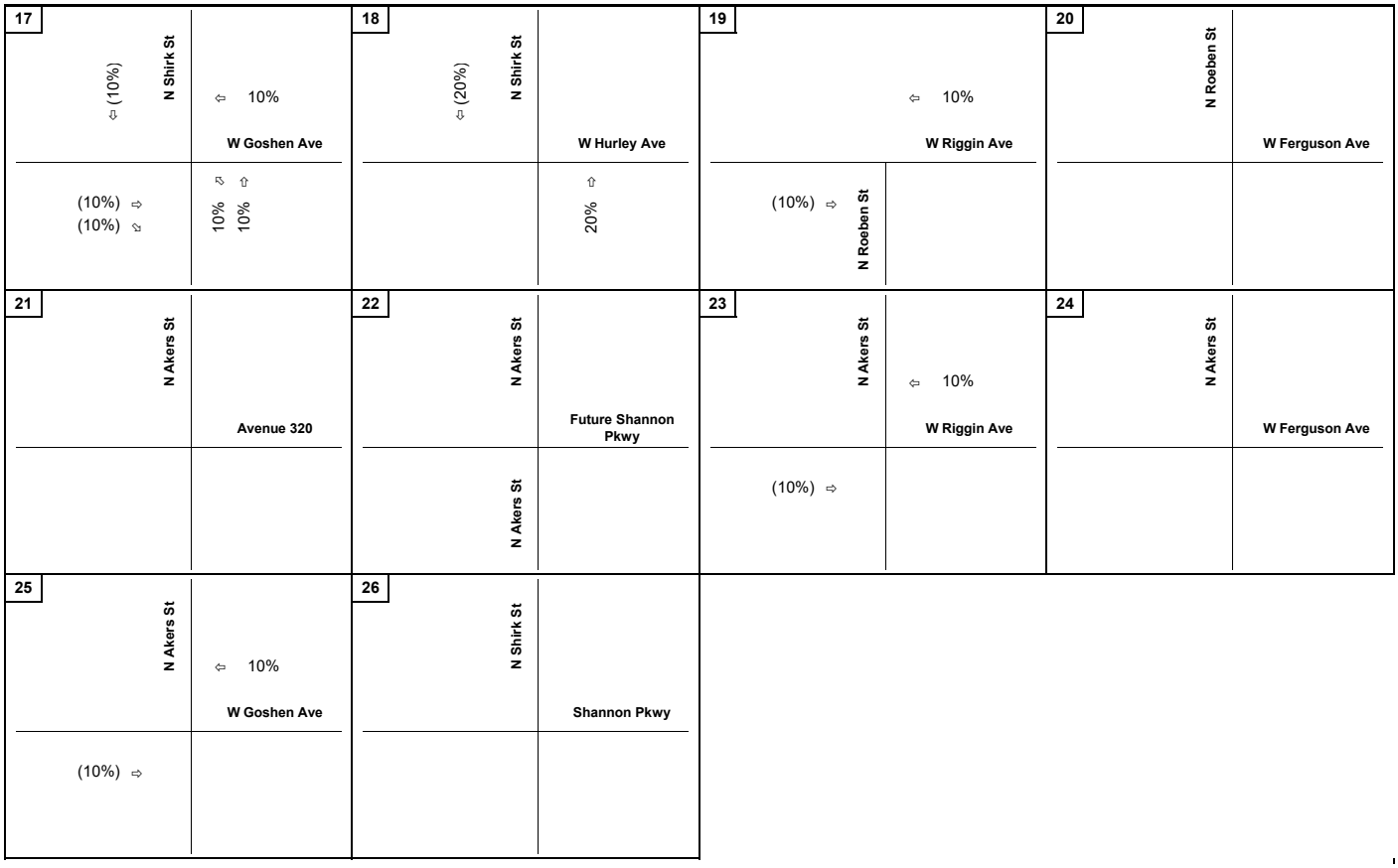
X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

SPR 20-185 Project Trip Distribution (PC) - Study Intersections

SPR 20-185



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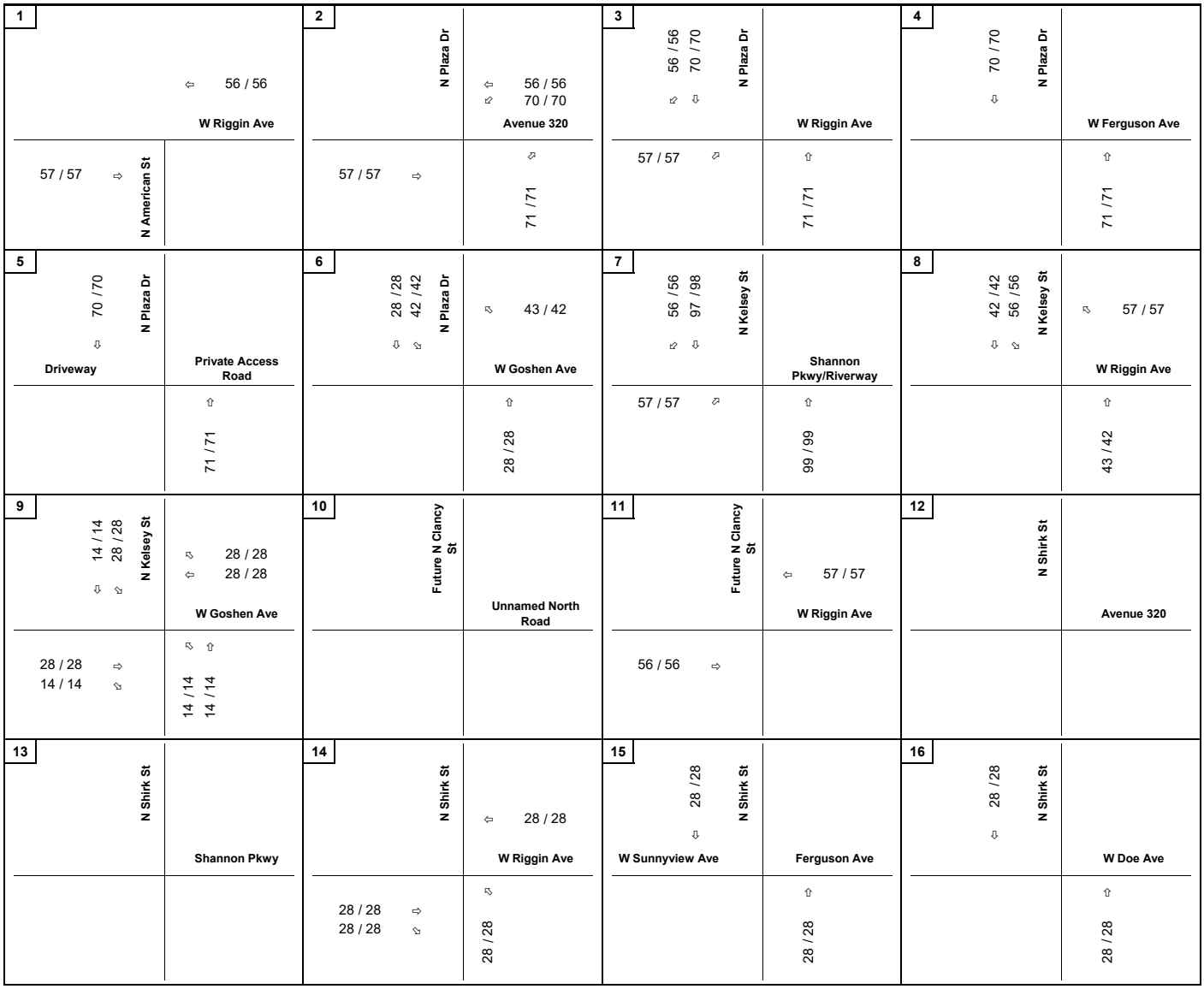
SPR 20-185



Legend

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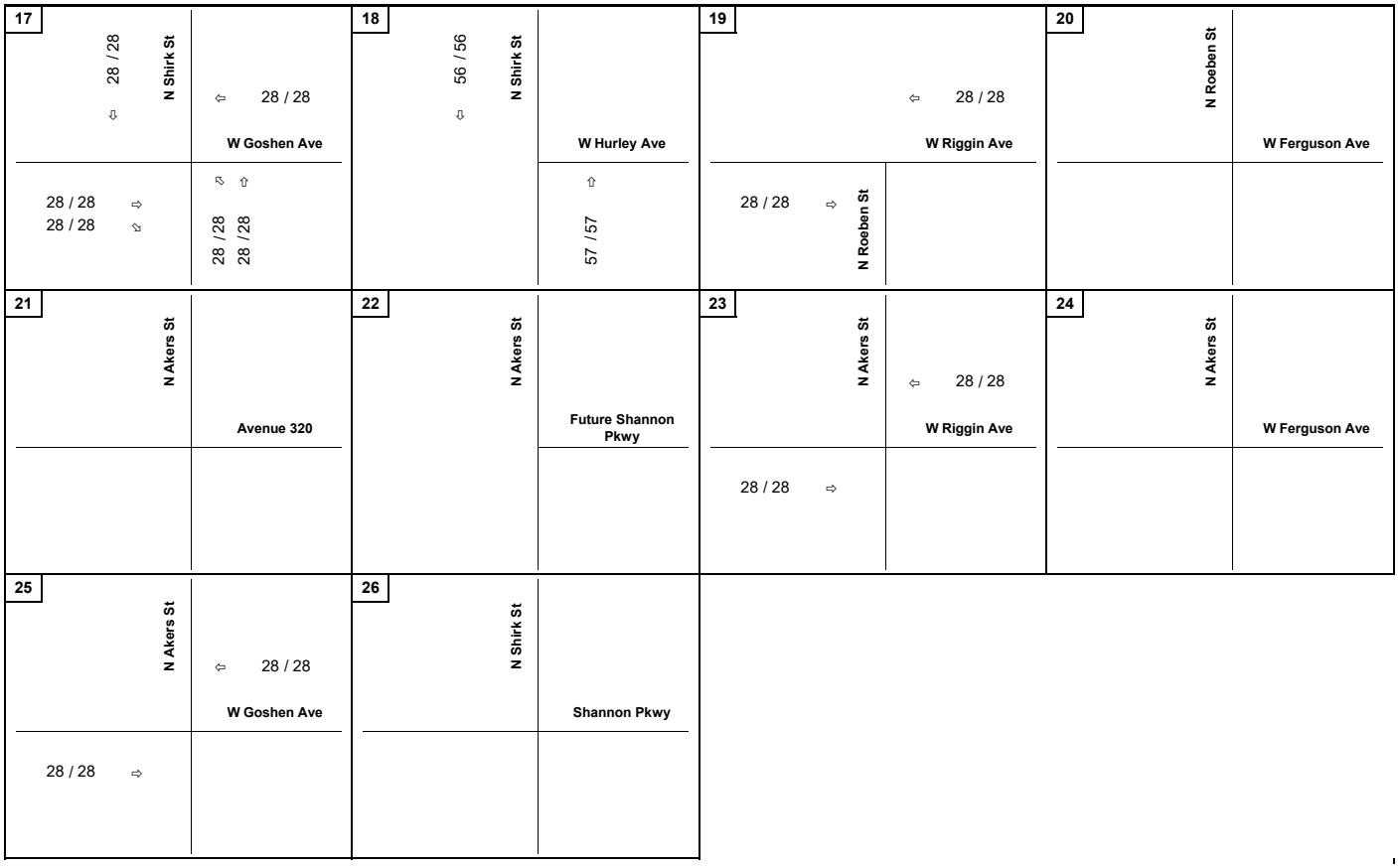
NOT TO SCALE

Kimley»Horn

SPR 20-185 Project Trip Assignment (PC)- Study Intersections

SPR 20-185

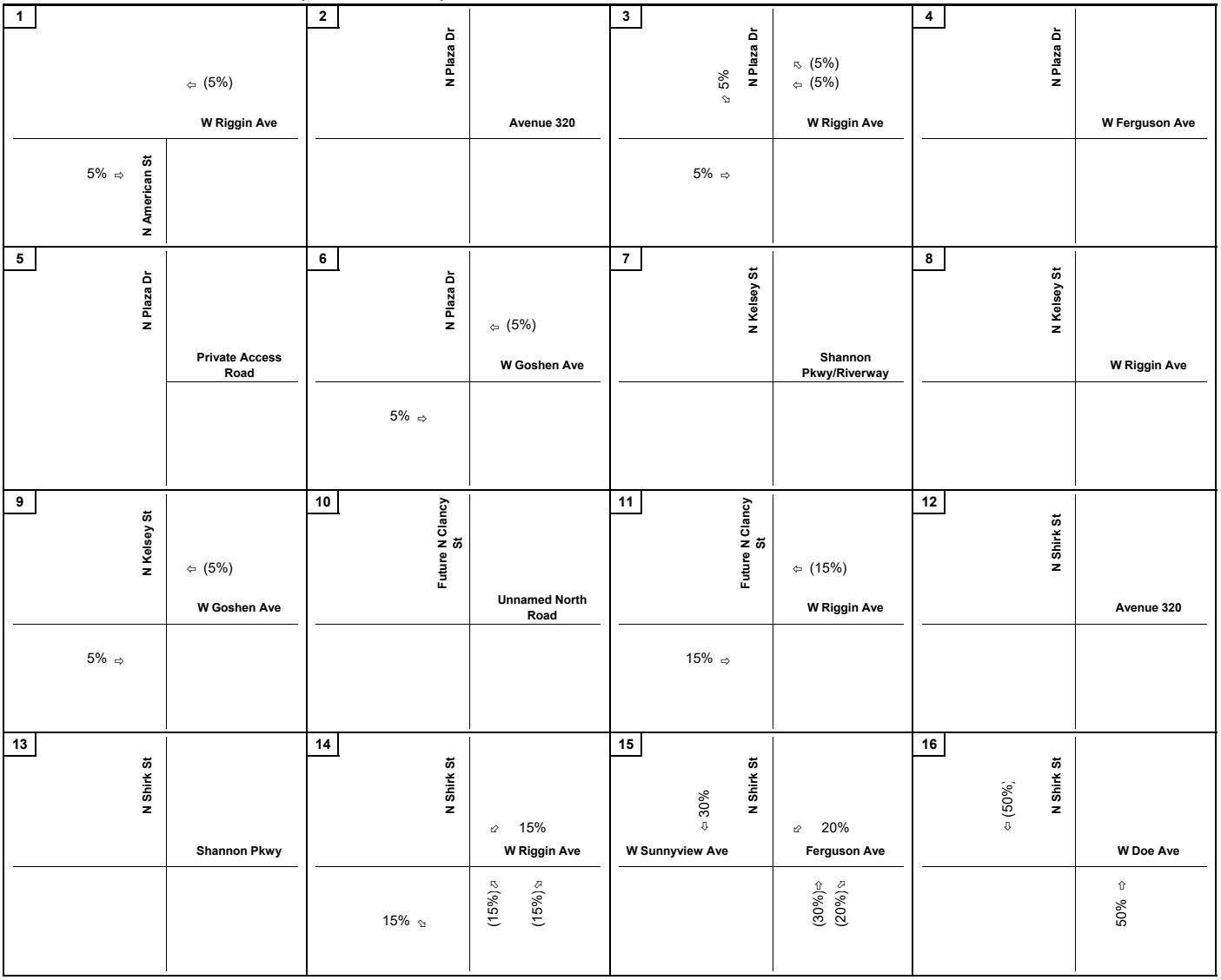


Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

SPR 22-061 and Shirk & Doe Apartment Complex



Legend

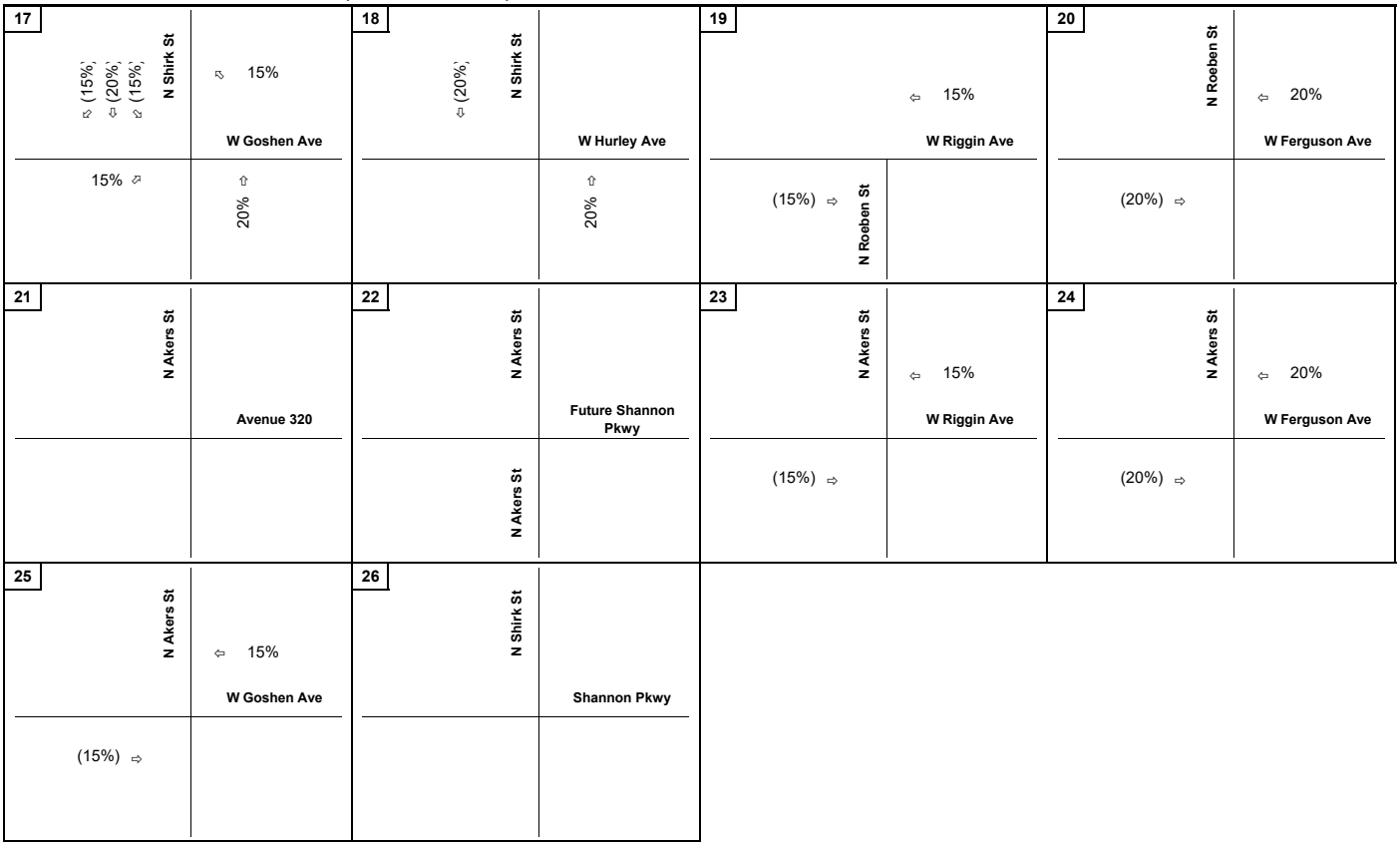
X% / (Y%) = IN / OUT PERCENT DISTRIBUTION

NOT TO SCALE

Kimley»Horn

SPR 22-061 and Shirk & Doe Apartment Complex
Project Trip Distribution (PC) - Study Intersections

SPR 22-061 and Shirk & Doe Apartment Complex



Legend

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Kimley»Horn

SPR 22-061 and Shirk & Doe Apartment Complex
Project Trip Distribution (PC) - Study Intersections

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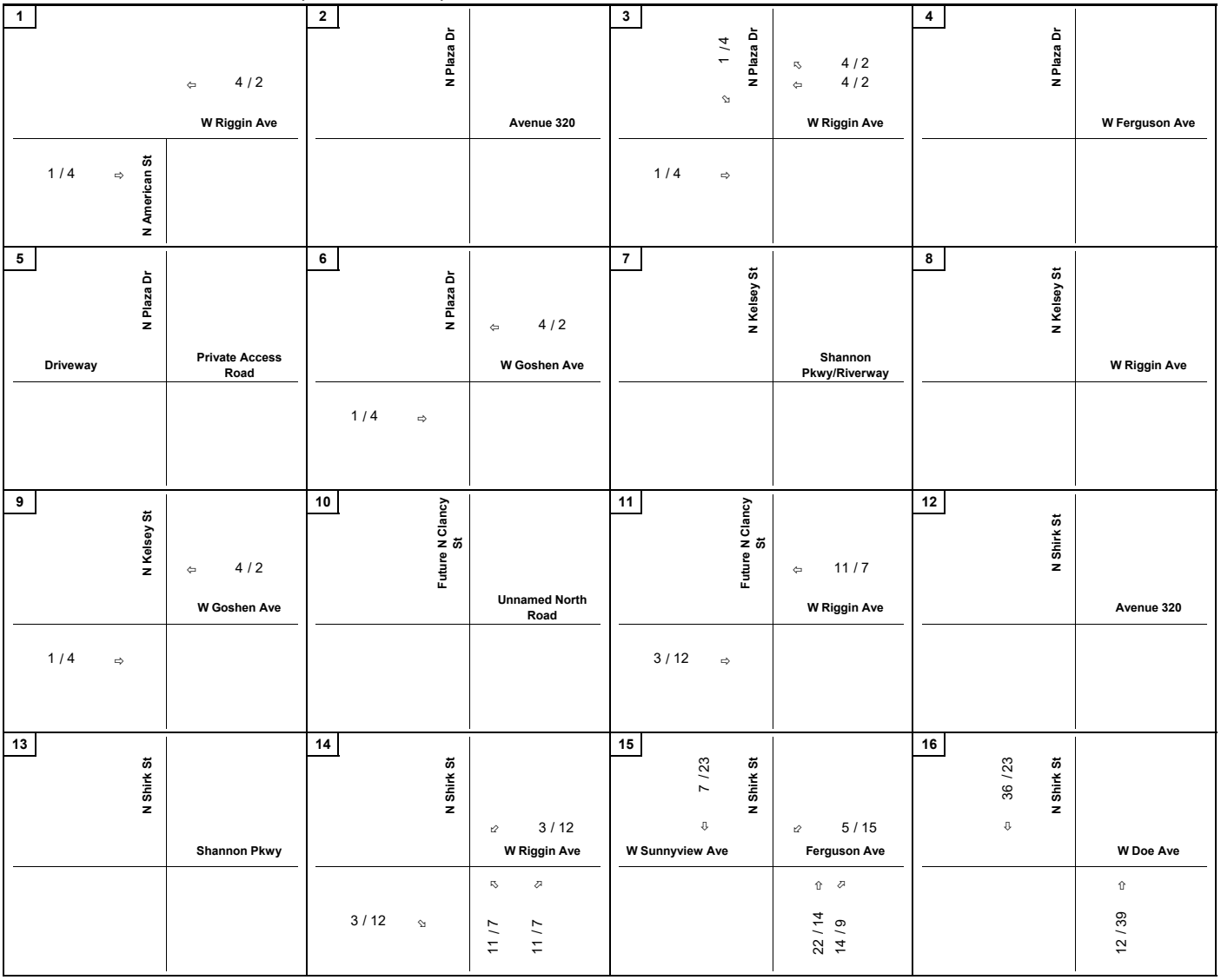


Legend

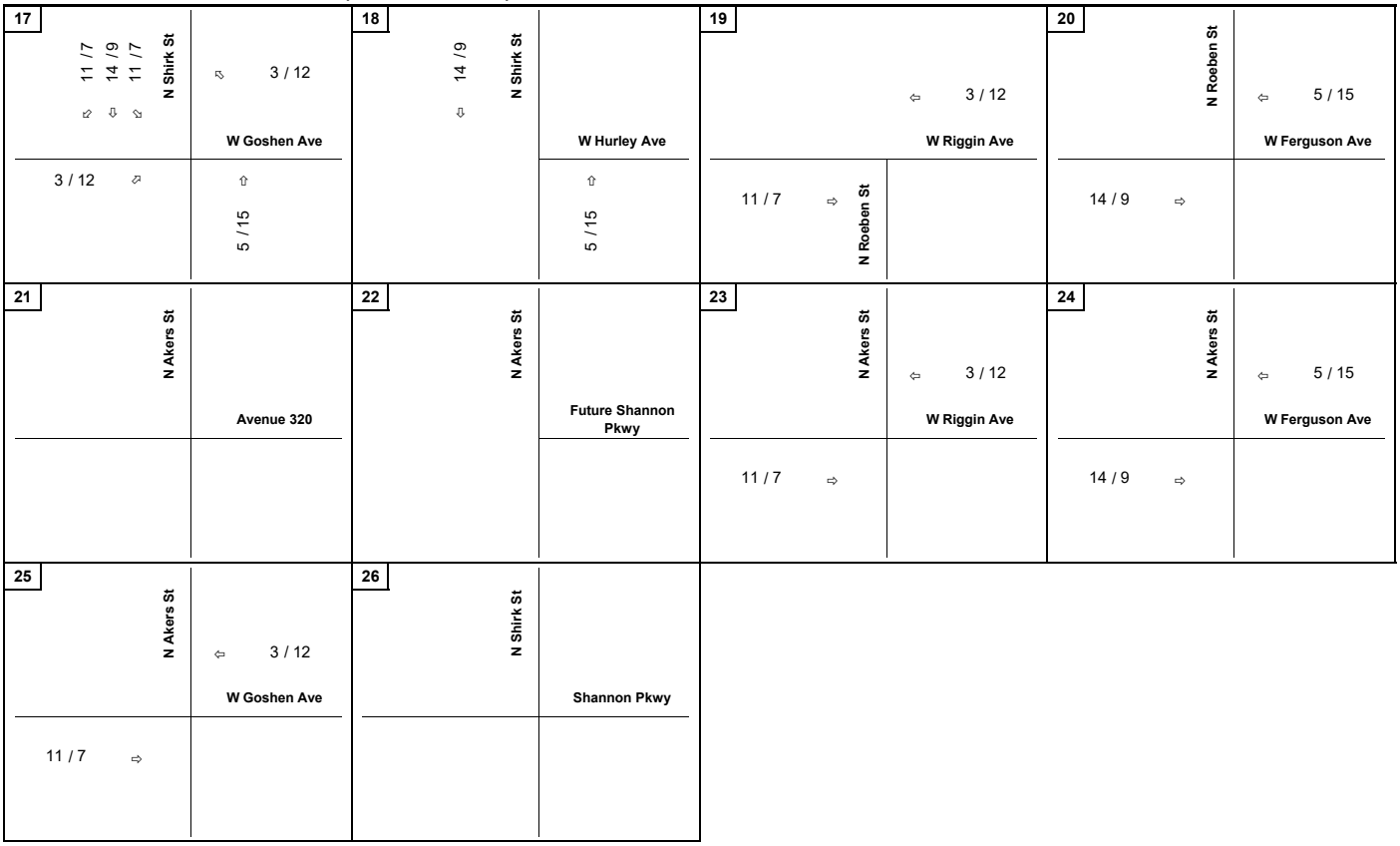
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

SPR 22-061 and Shirk & Doe Apartment Complex
Project Trip Assignment (PC) - Study Intersections

SPR 22-061 and Shirk & Doe Apartment Complex



Legend

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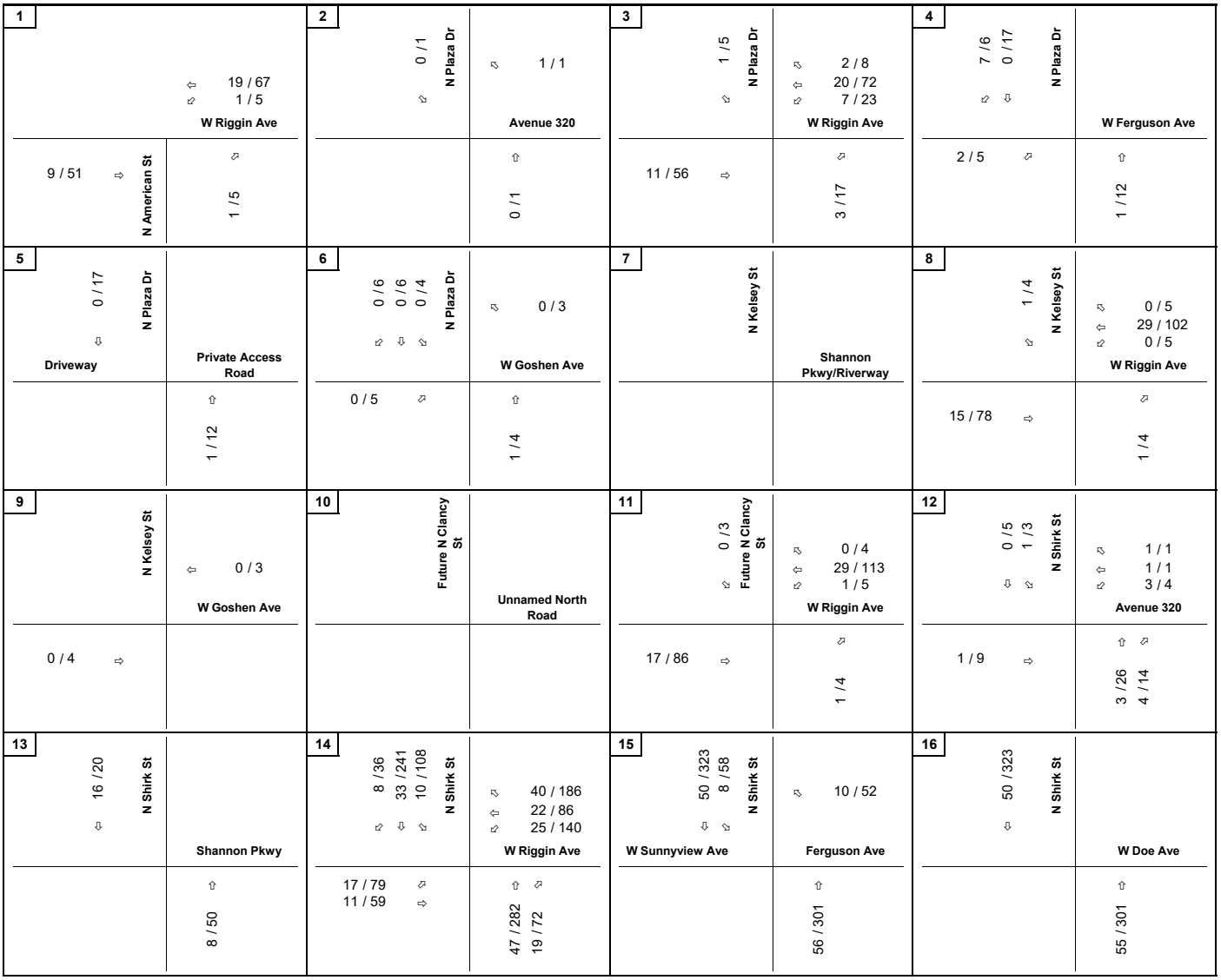
NOT TO SCALE

CARLTON ACRES - PHASE 1



Legend

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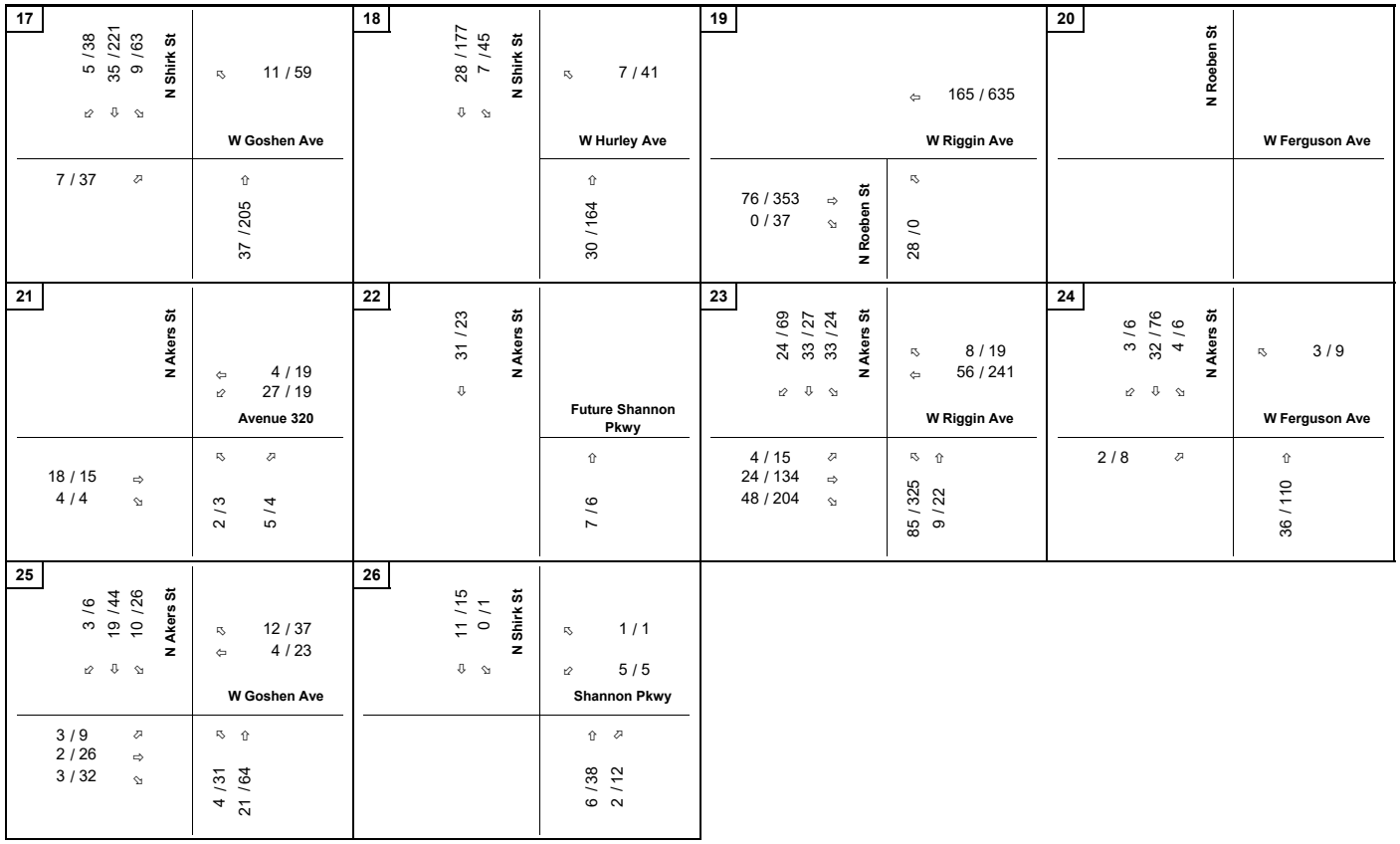
NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 1 Project Trip Assignment (PC)- Study Intersections

CARLTON ACRES - PHASE 1



Legend

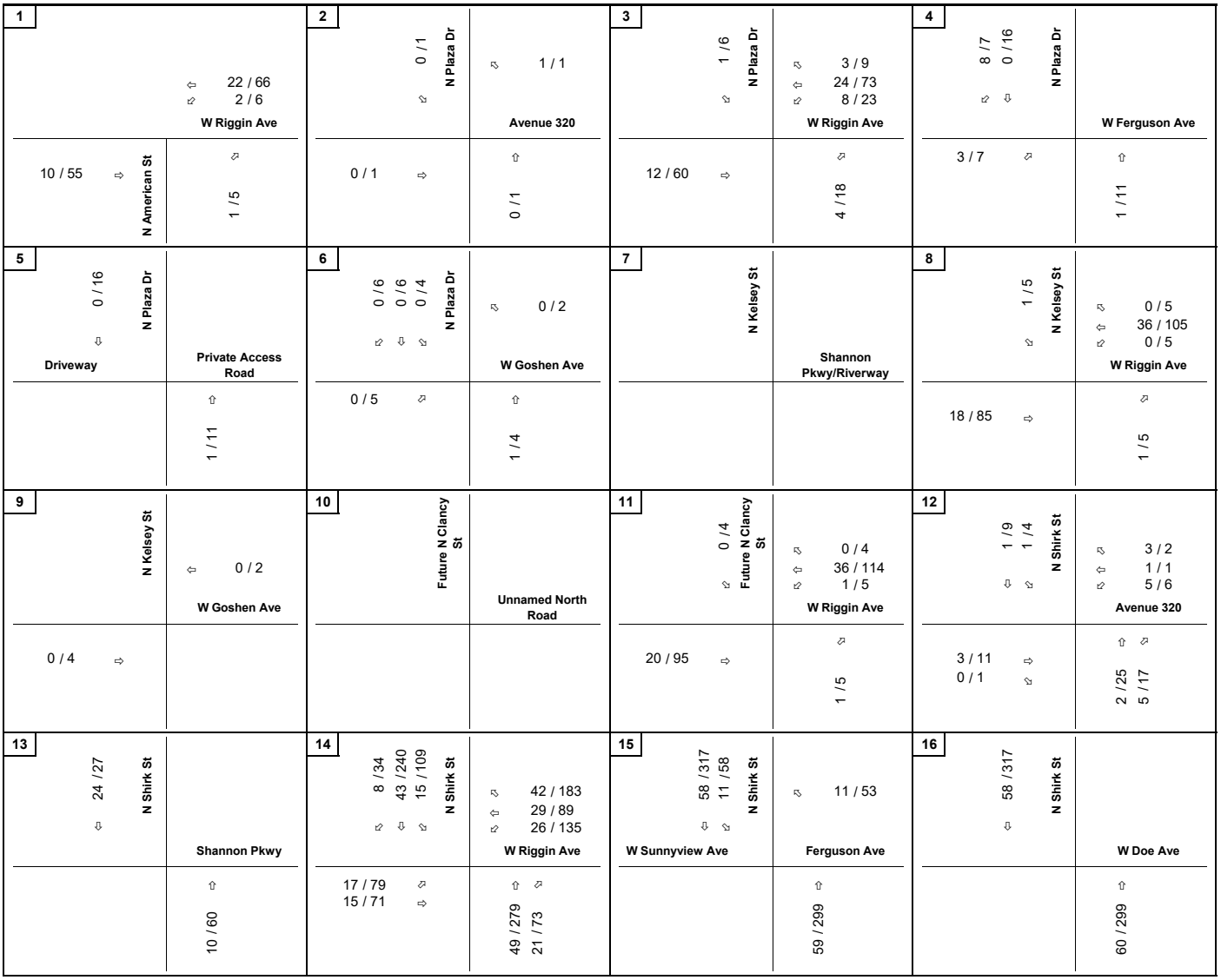
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 1 Project Trip Assignment (PC)- Study Intersections

CARLTON ACRES - PHASE 2



Legend

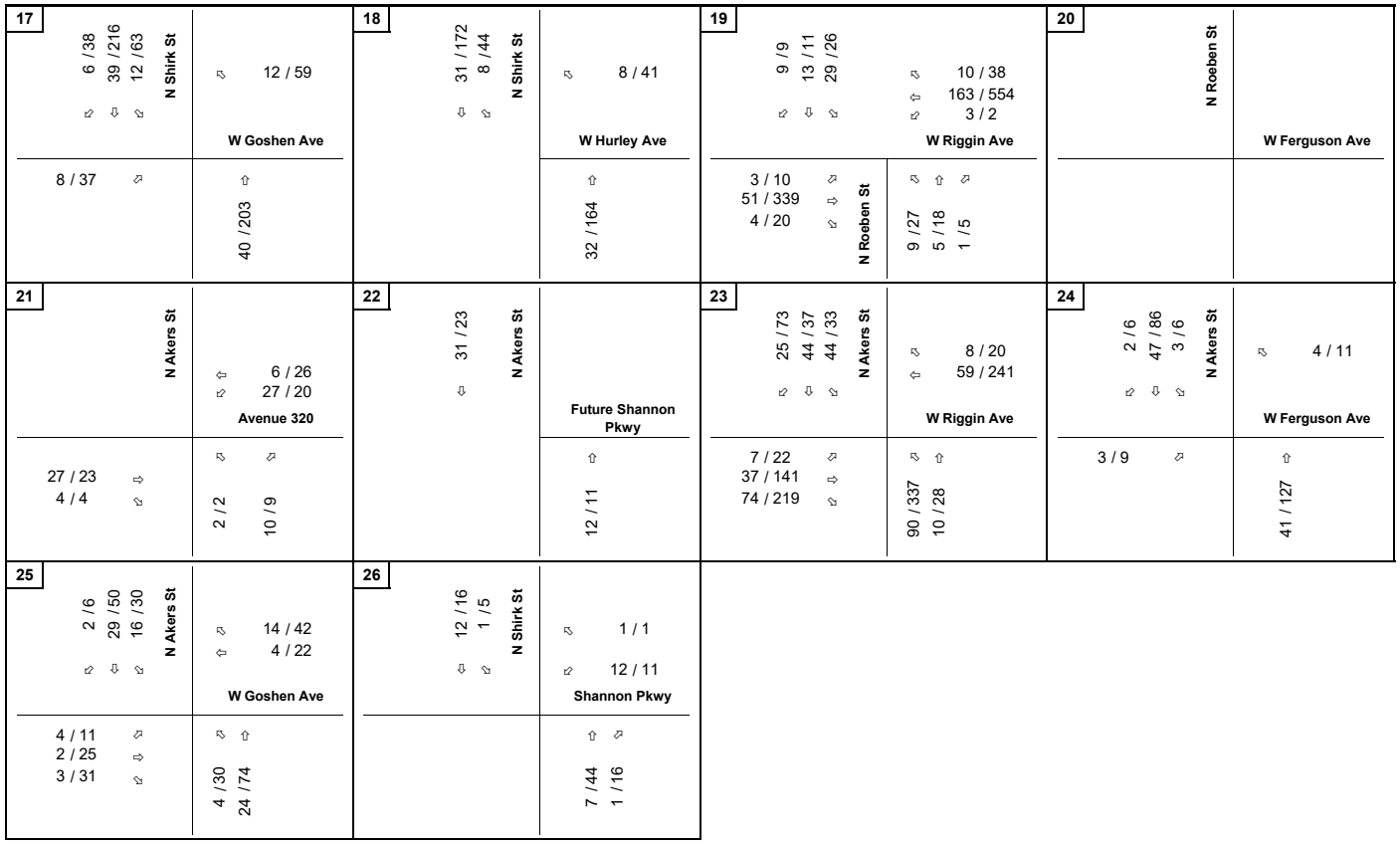
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 2 Project Trip Assignment (PC)- Study Intersections

CARLTON ACRES - PHASE 2



Legend

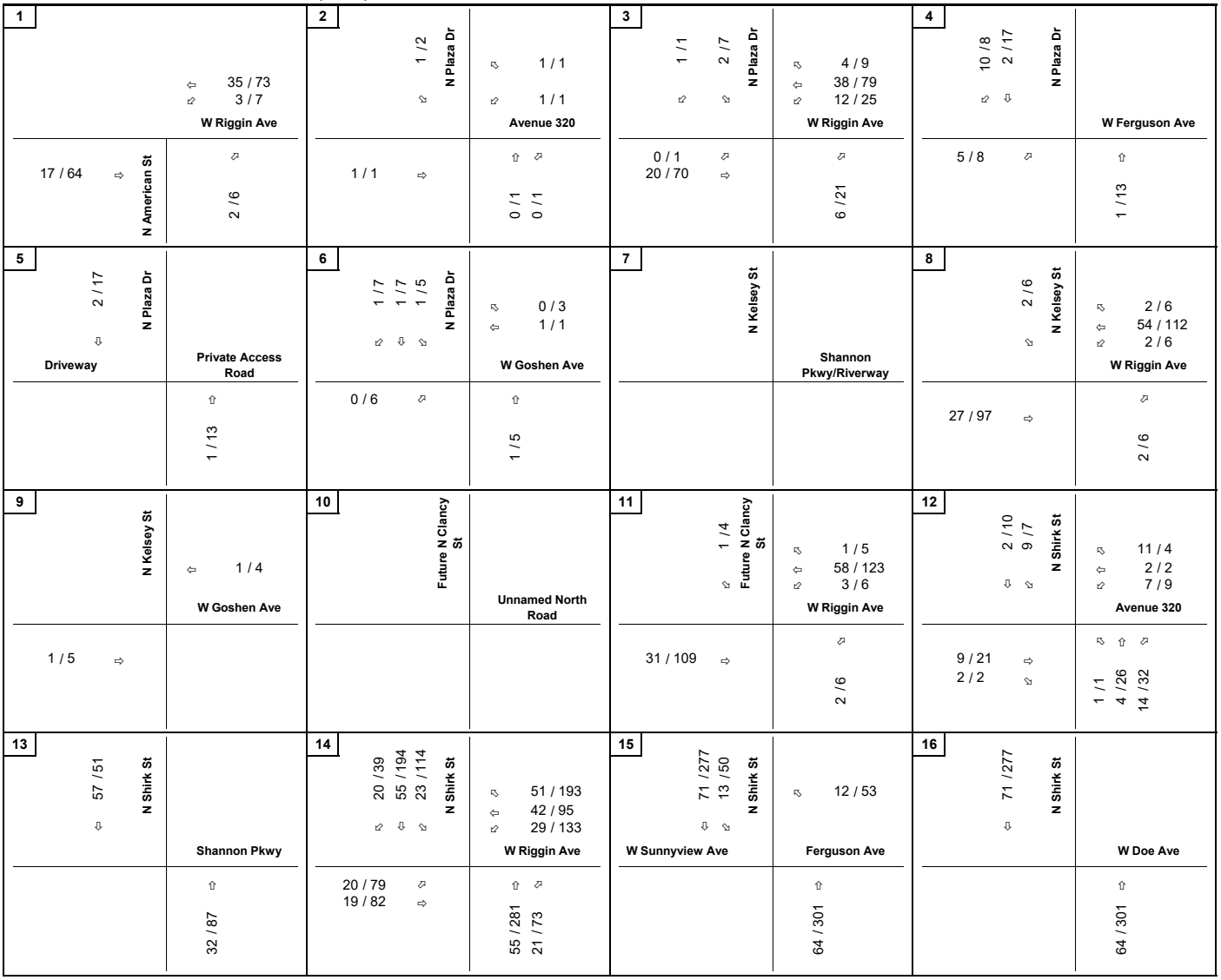
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 2 Project Trip Assignment (PC)- Study Intersections

CARLTON ACRES PHASE 2 & 3 (50%)



Legend

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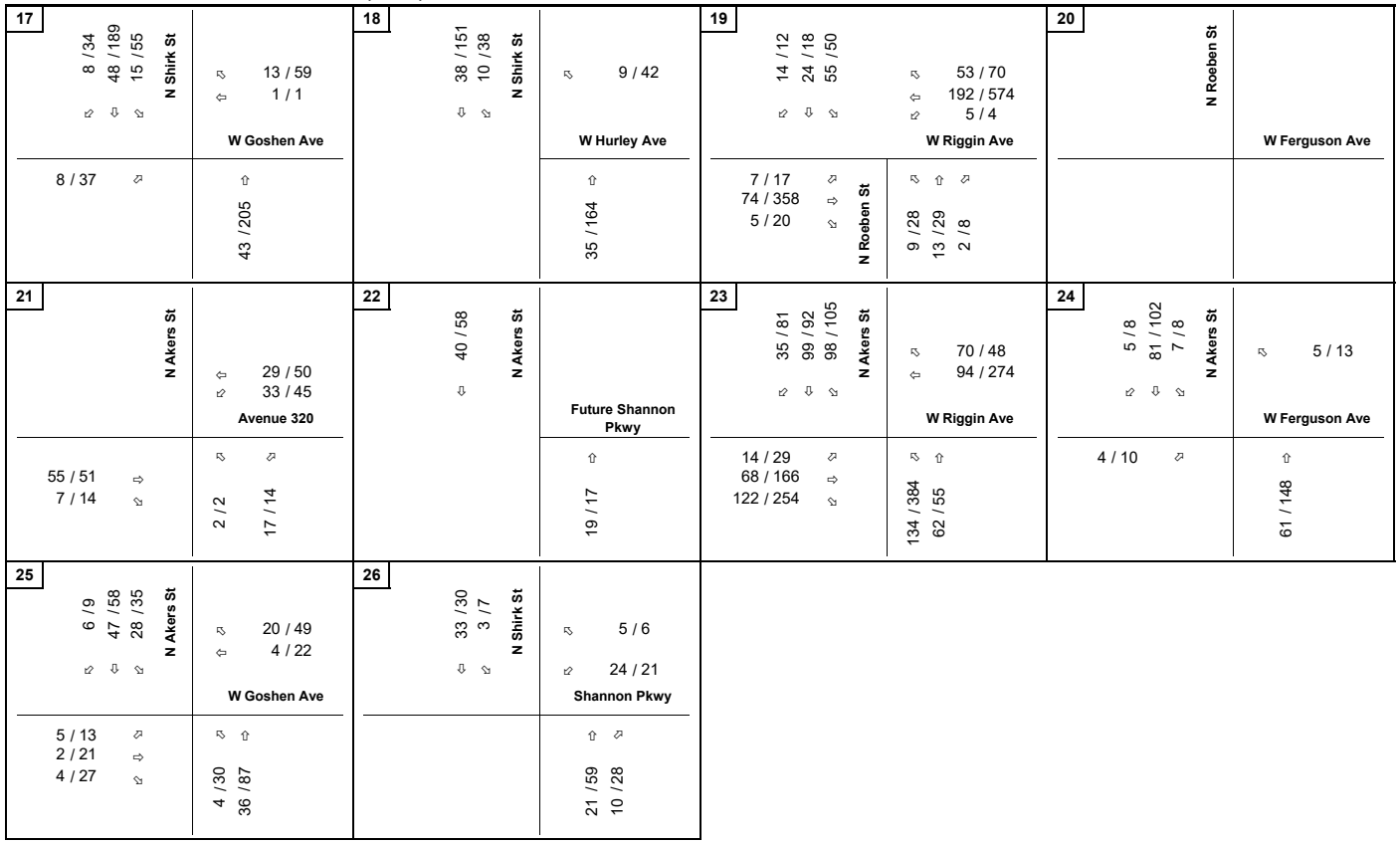
NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 2 & 3 (50%) Project Trip Assignment (PC)- Study Intersections

CARLTON ACRES PHASE 2 & 3 (50%)



Legend

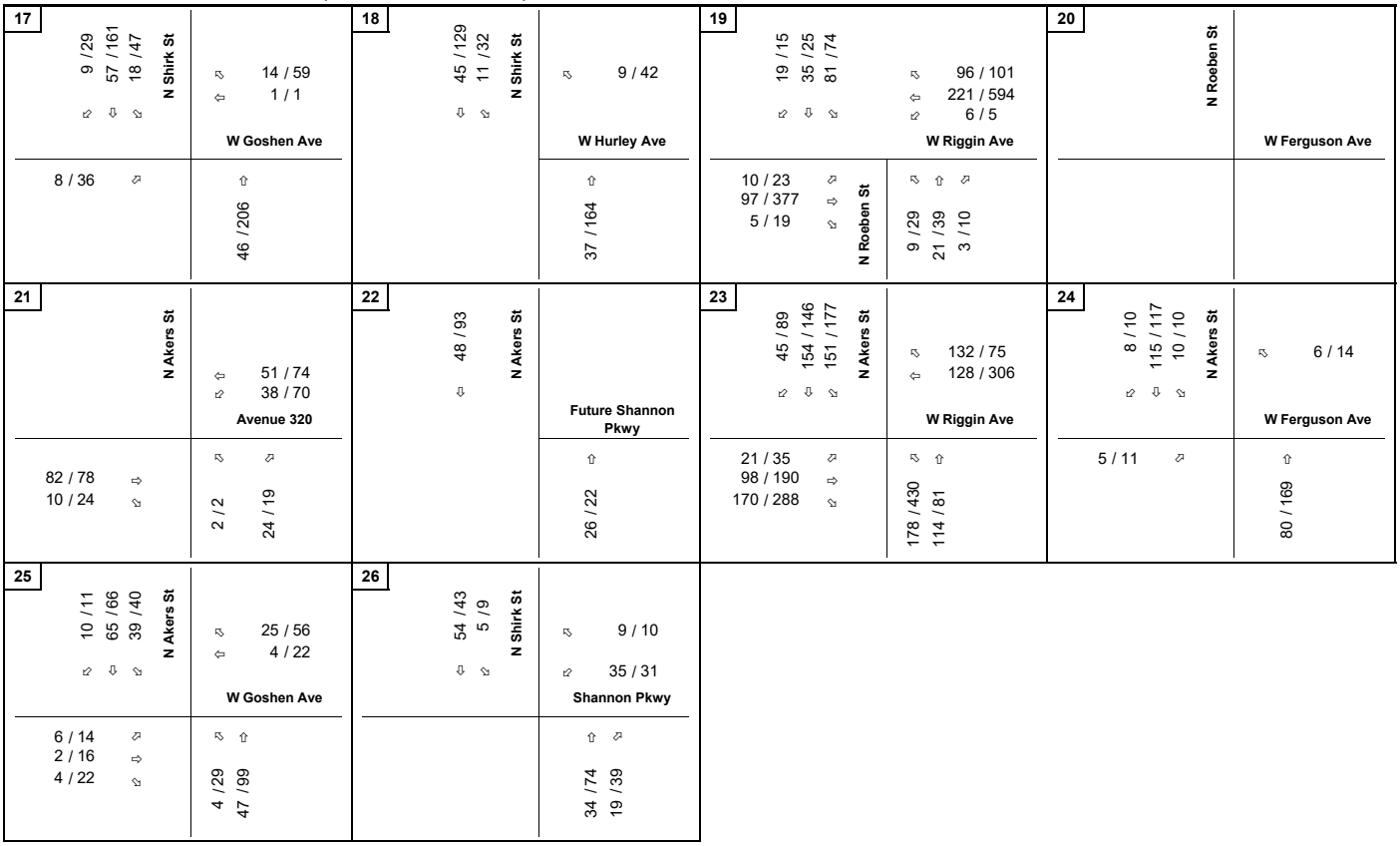
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 2 & 3 (50%) Project Trip Assignment (PC)- Study Intersections

CARLTON ACRES PHASE 3 (FULL BUILD-OUT)



Legend

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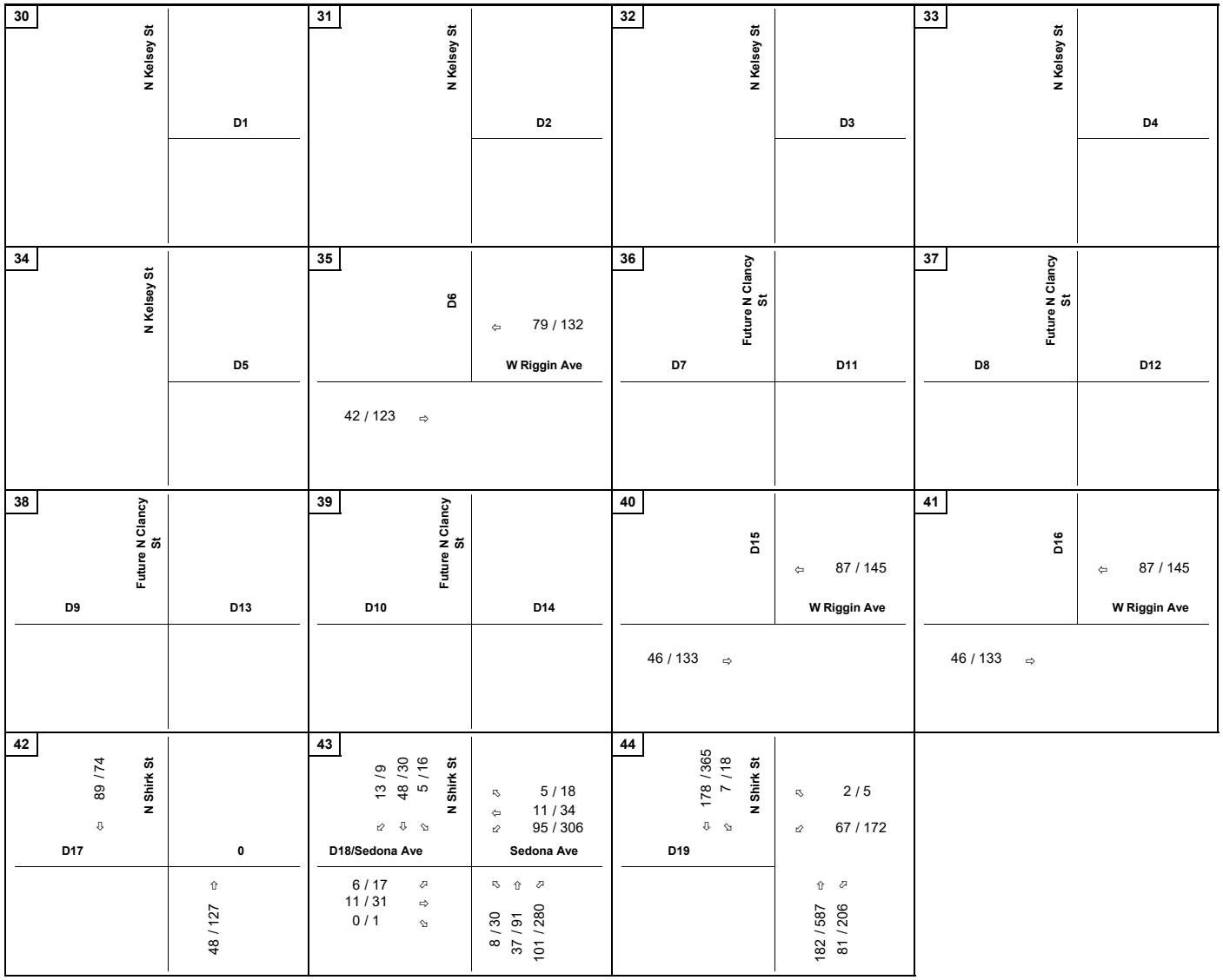
NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 3 Project Trip Assignment (PC)- Study Intersections

CARLTON ACRES



Legend

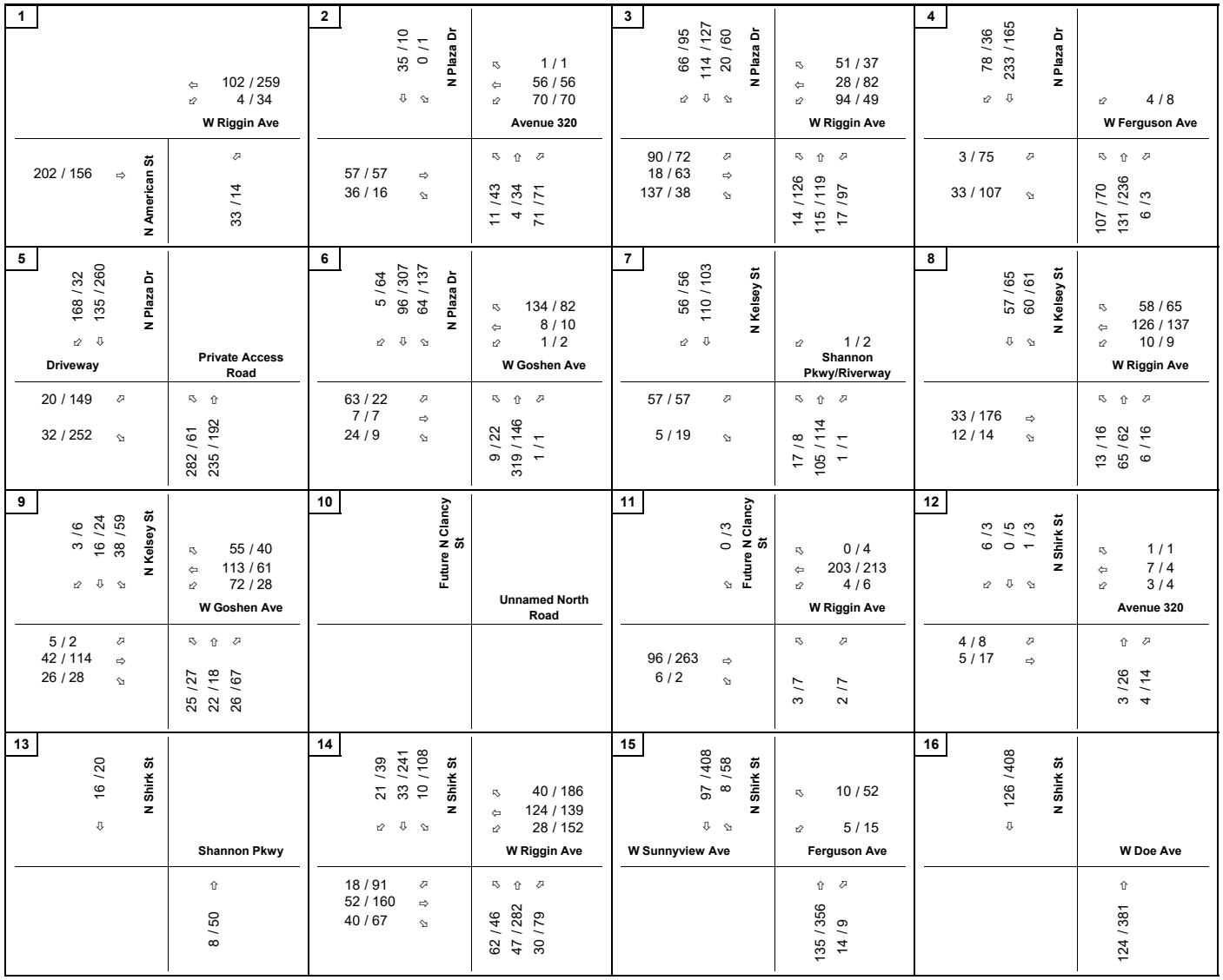
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

Carlton Acres Phase 3 Project Trip Assignment (PC)- Study Intersections

TOTAL CUMULATIVE PROJECTS 2025 & 2026



Legend

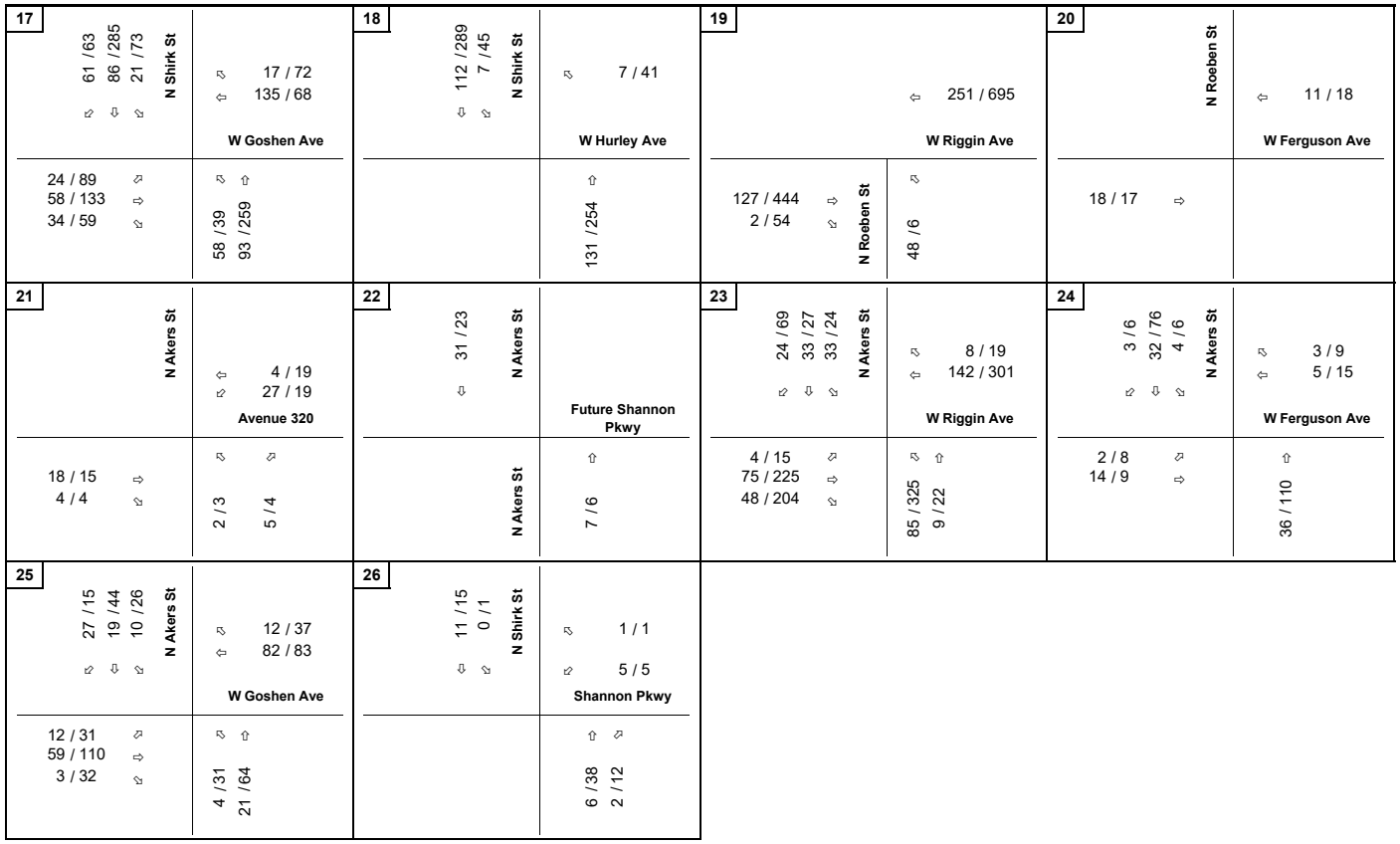
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2025 & 2026

TOTAL CUMULATIVE PROJECTS 2025 & 2026



Legend

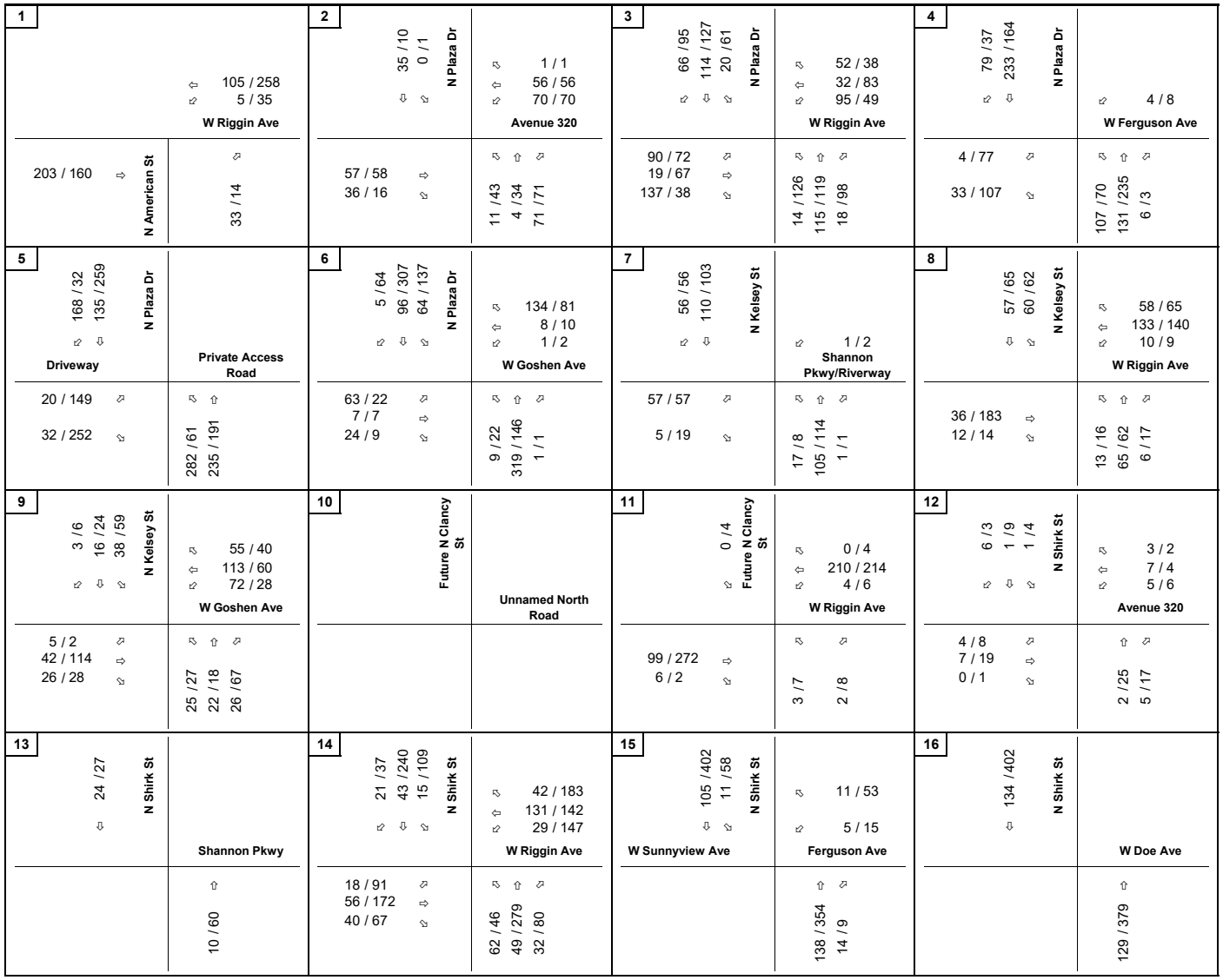
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2025 & 2026

TOTAL CUMULATIVE PROJECTS 2028



Legend

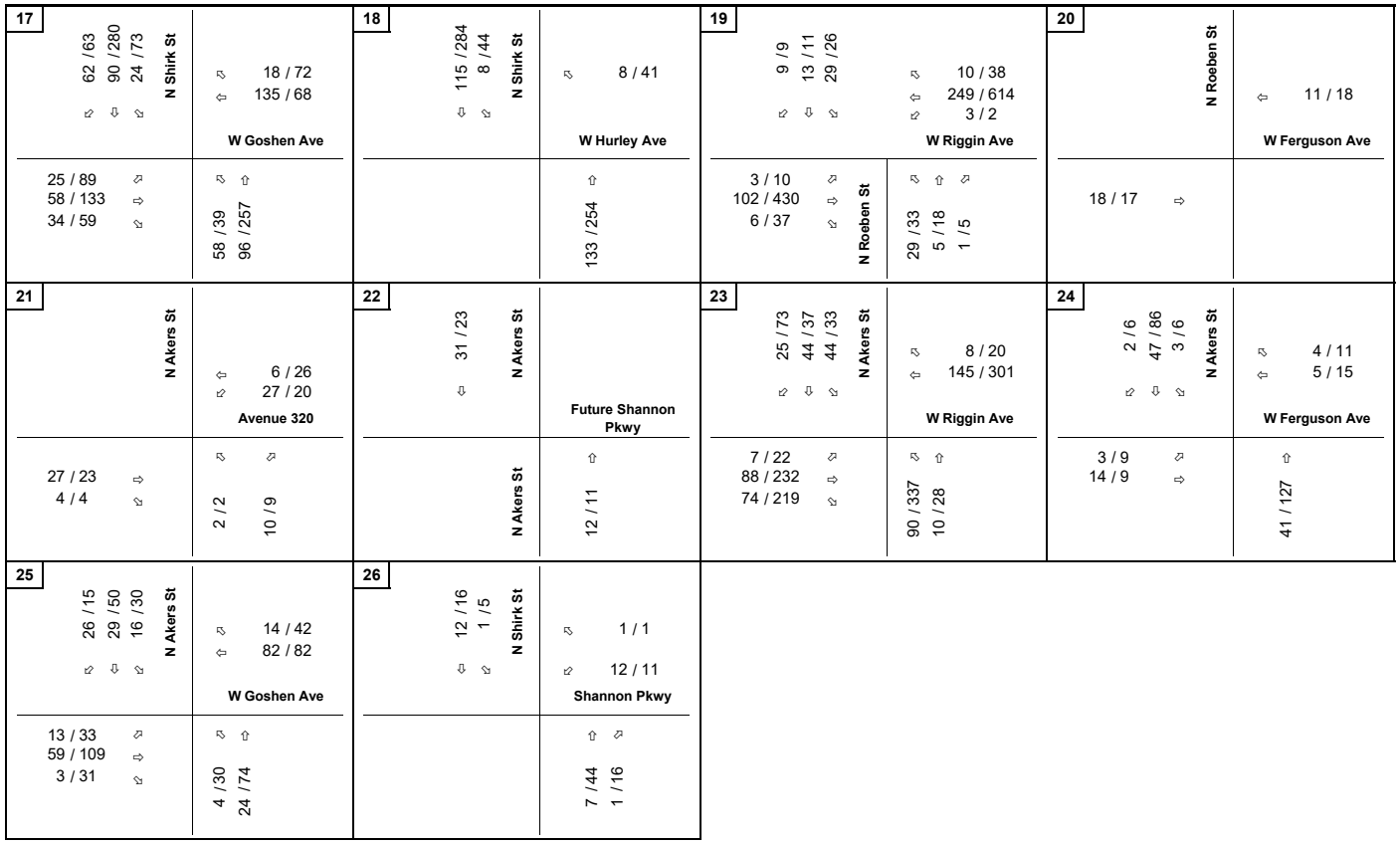
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2028

TOTAL CUMULATIVE PROJECTS 2028



Legend

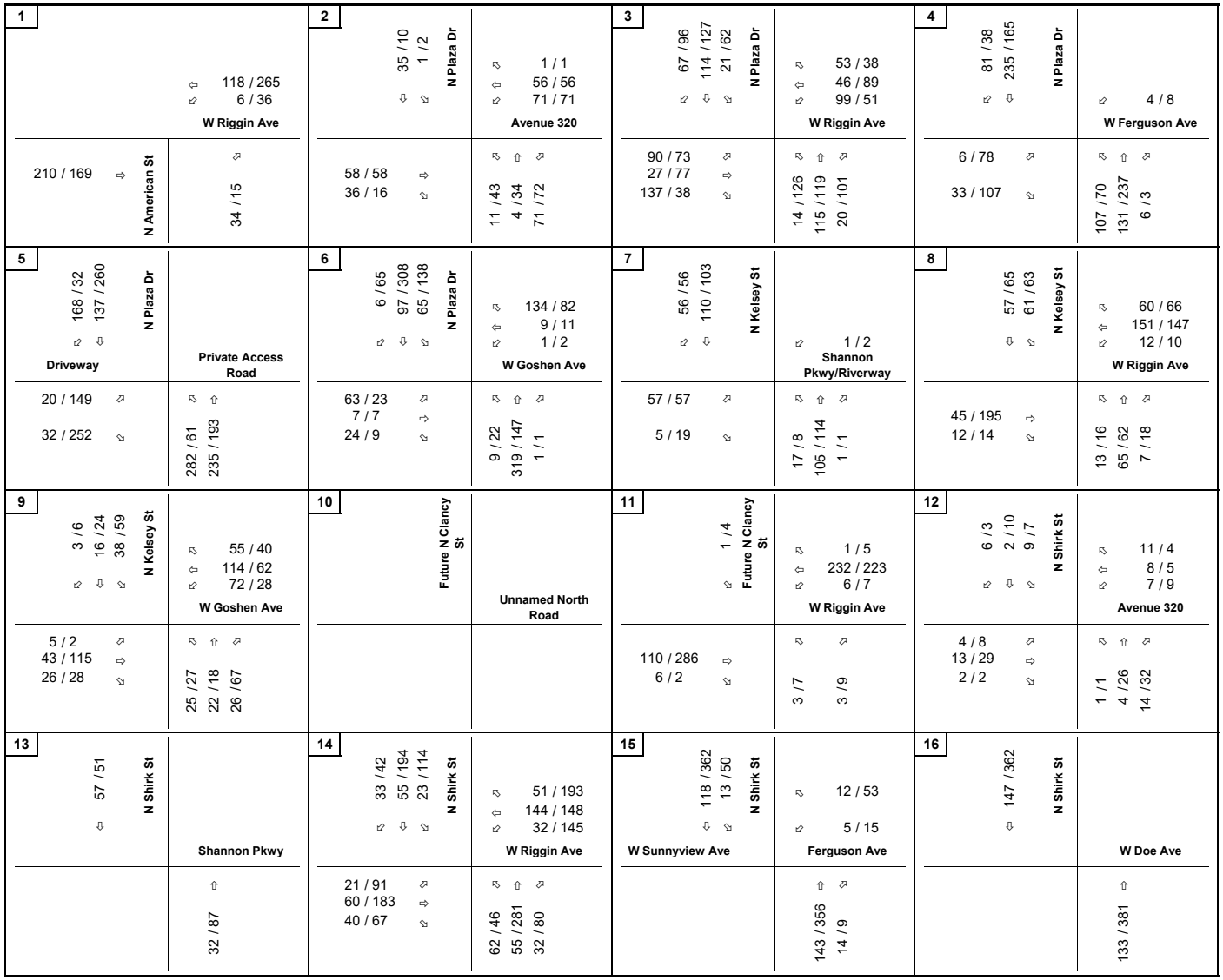
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2028

TOTAL CUMULATIVE PROJECTS 2033 & 2038



Legend

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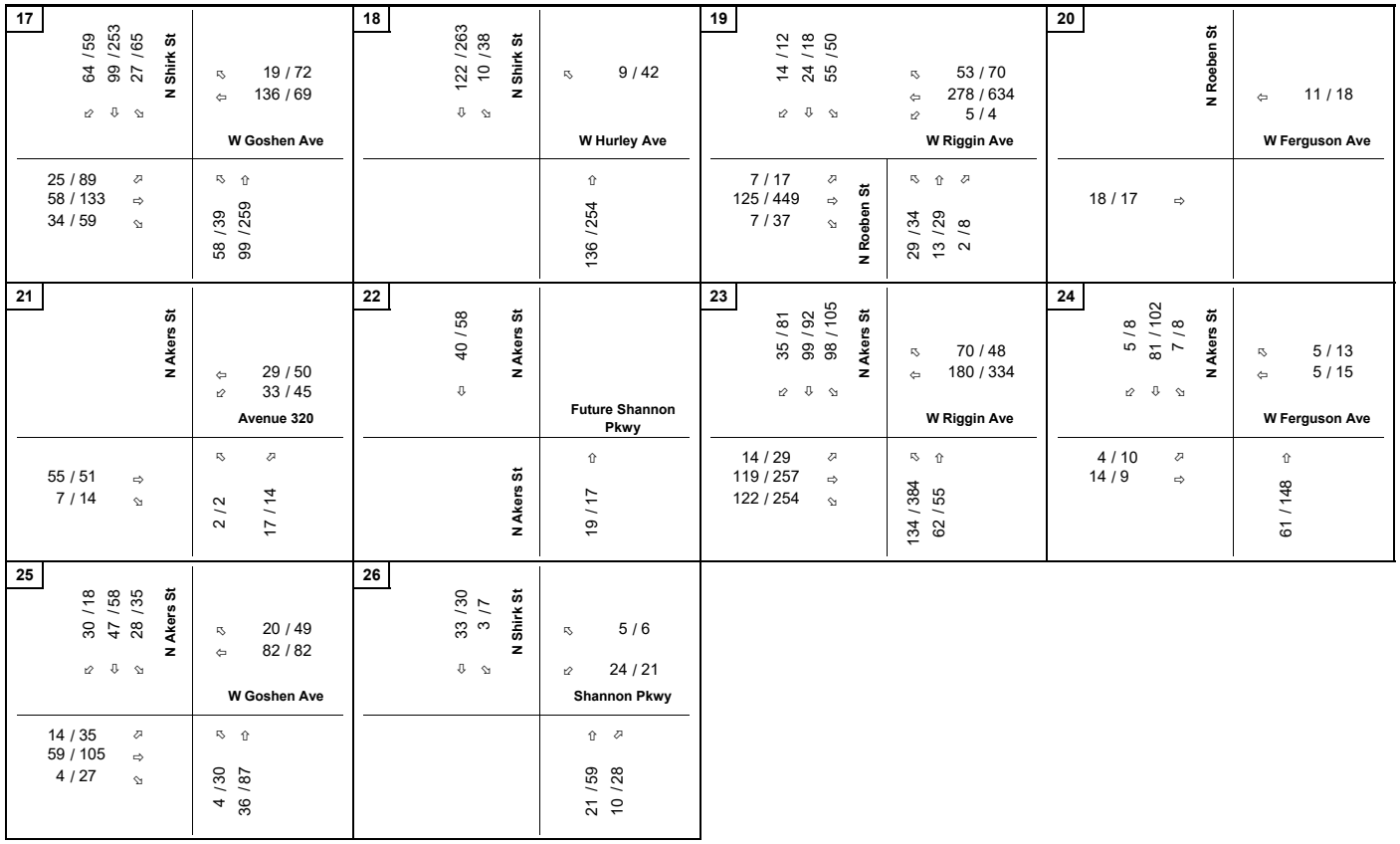
NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2033 & 2038

TOTAL CUMULATIVE PROJECTS 2033 & 2038



Legend

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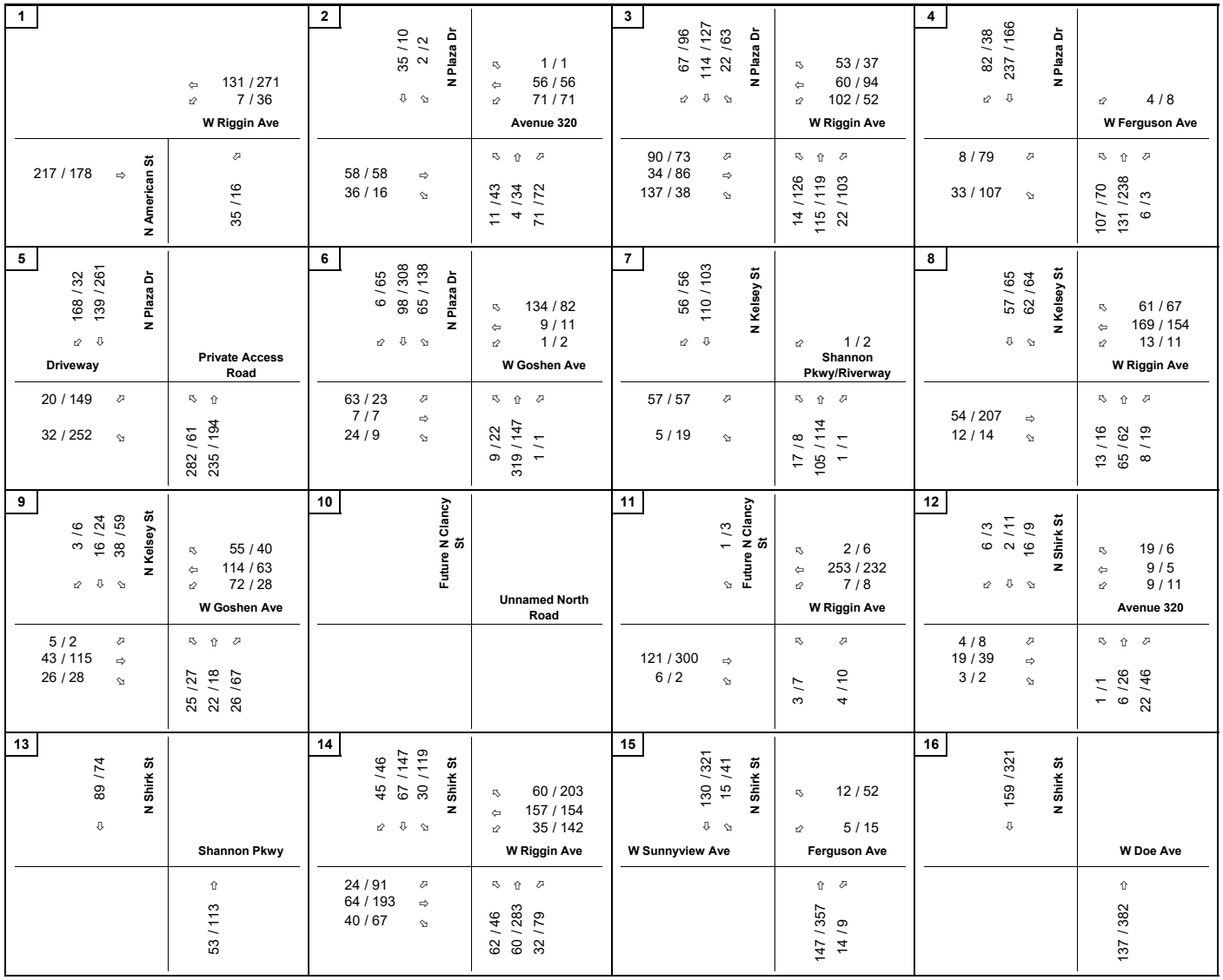
NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2033 & 2038

TOTAL CUMULATIVE PROJECTS 2048



Legend

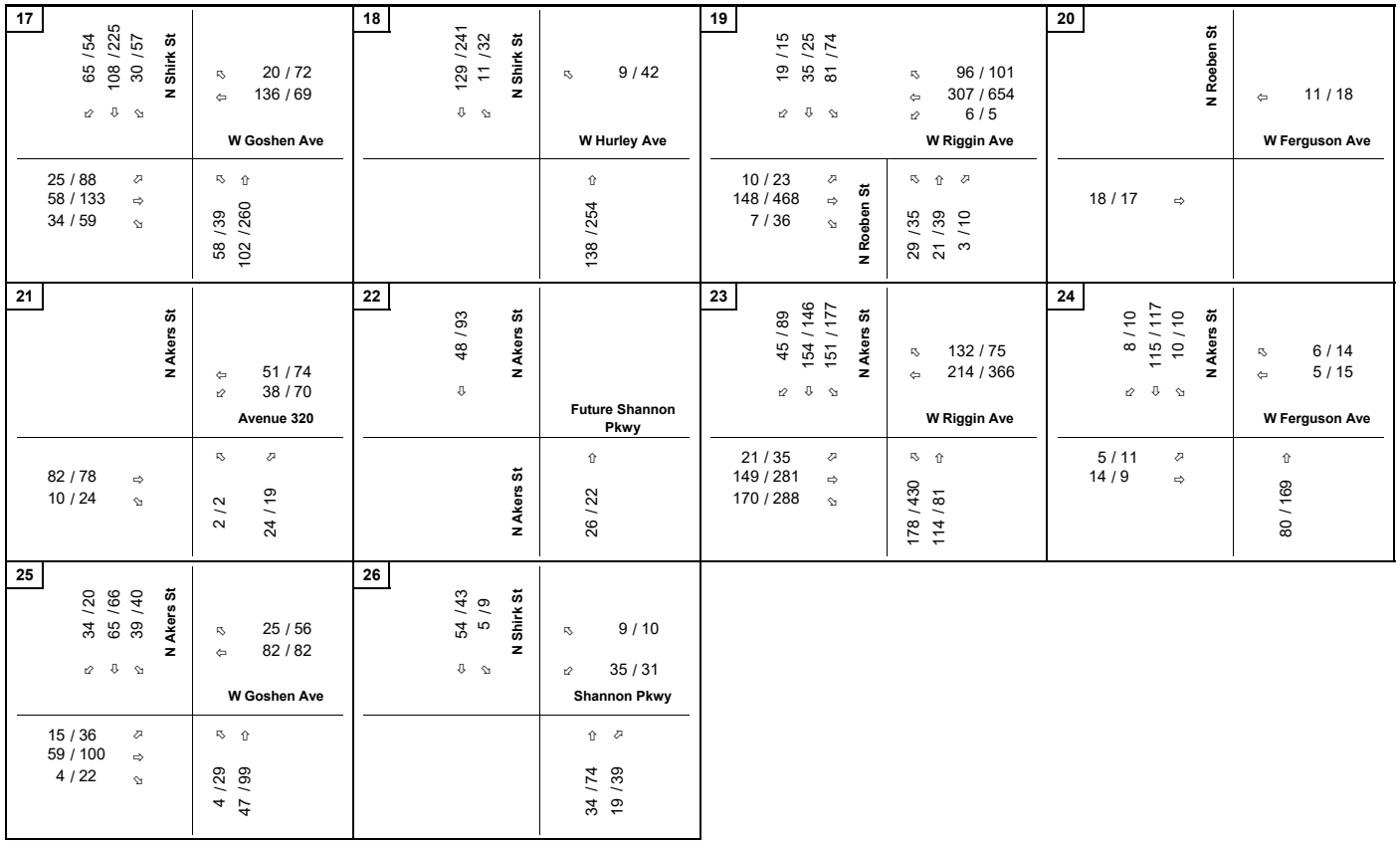
X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2048

TOTAL CUMULATIVE PROJECTS 2048



Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

TOTAL CUMULATIVE TRIPS - 2048

811 Know what's below. Call before you dig.

City of Visalia

County of Tulare — State of California

RIGGIN WIDENING - SHIRK TO KELSEY

PROJECT NO. 3010-72000/CP0398-999

CITY OF VISALIA CONTACT INFORMATION:

Sanitary Sewer & Storm Water Collection
Attn: Rick Paradez
City of Visalia
7579 Avenue 288 (WWTP)
Visalia, CA 93277
Phone: (559) 713-4273

Street Department
Attn: Wyndi Ferguson
City of Visalia
336 N. Ben Maddox Way
Visalia, CA 93292
Phone: (559) 713-4186

UTILITY CONTACT INFORMATION:

CALIFORNIA WATER SERVICE COMPANY
Area Superintendent: Stuart Skoglund
216 N. Valley Oaks Drive
Visalia, CA 93291
Phone: (559) 772-5260
Email: sskoglund@calwater.com

CUSTOMER SERVICE MANAGER
Sedelia Sanchez
216 N. Valley Oaks Drive
Visalia, CA 93291
Phone: (559) 624-1621
Email: SSanchez@calwater.com

COMCAST CABLE
Construction Supervisor: Michael Corral
1031 N. Plaza Drive
Visalia, CA 93291
Phone: (559) 735-2104
Email: michael_corral@cable.comcast.com

AT&T CALIFORNIA
Project Manager: Erin Pectol
217 W. Acequia Ave.
P.O. Box 2668
Visalia, CA 93291
Phone: (559) 739-6649
Email: EP8545@att.com

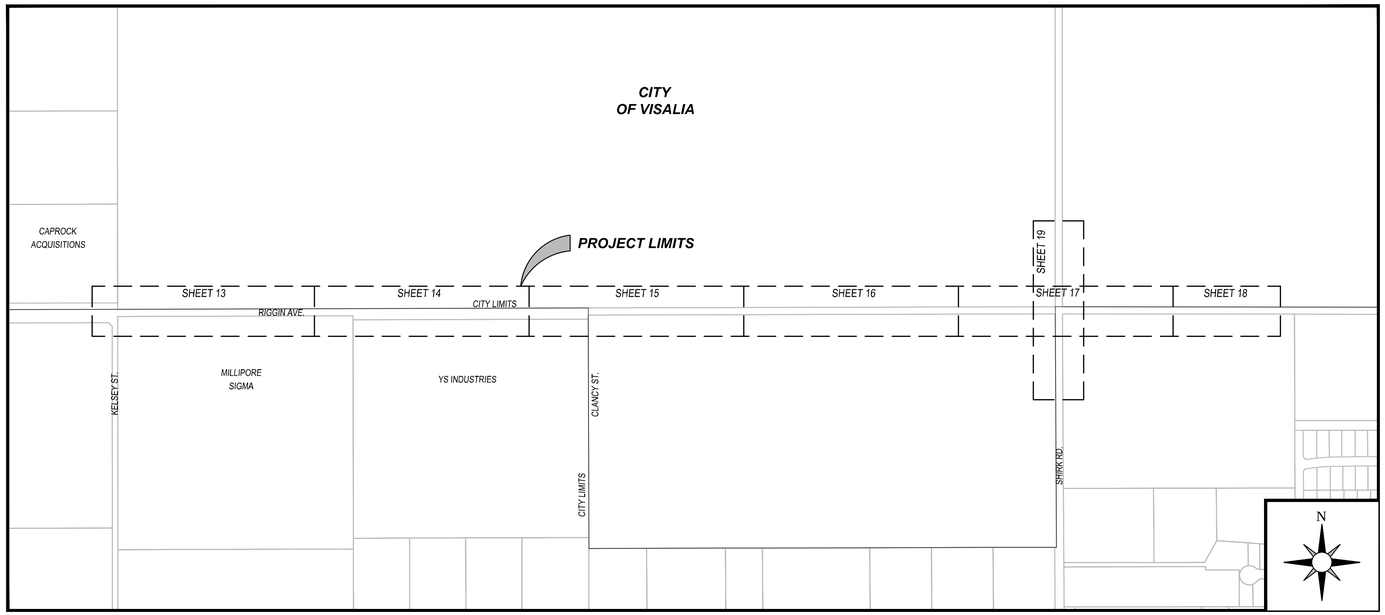
SOUTHERN CALIFORNIA GAS COMPANY
Project Manager: Jeff Goforth
404 N. Tipton St.
Visalia, CA 93292
Fax: (559) 739-2253
Phone: (559) 739-2337
Email: jgoforth@semprautilities.com

SOUTHERN CALIFORNIA EDISON (SCE)
Local Planner: Christian Bright
San Joaquin Valley
Phone: (559) 684-3527
Email: christian.bright@sce.com

CENTURY LINK (PREVIOUSLY LEVEL 3)
OSP Engineer Scott Mattingly
Southern California Division CentryLink
818 W. 7th St, Suite 1110
Los Angeles, CA 90017
Office: (213) 996-5587
Mobile: (213) 309-9869
Email: scott.mattingly@centurylink.com

BENCHMARK

CITY OF VISALIA BM #535
RR SPIKE IN PP NORTHWEST CORNER OF RIGGIN AVE. AND SHIRK RD.
ELEVATION 304.54



PROJECT MAP

SCALE: 1" = 400'

DETAILED SHEET INDEX

NO.	
1	COVER SHEET
2	GENERAL NOTES, LEGEND & ABBREVIATIONS
3	TOPO-DEMO PLANS - RIGGIN AVE. STA: 10+00 - 33+00
4	TOPOGRAPHIC & DEMOLITION PLAN - RIGGIN AVE. STA: 33+00 - 57+00
5	TOPOGRAPHIC & DEMOLITION PLAN - RIGGIN AVE. STA: 57+00 - END
6	TOPOGRAPHIC & DEMOLITION PLAN - SHIRK RD. STA: 5+00 - END
7	UTILITY & POTHOLING PLAN - RIGGIN AVE. STA: 10+00 - 33+00
8	UTILITY & POTHOLING PLAN - RIGGIN AVE. STA: 33+00 - 57+00
9	UTILITY & POTHOLING PLAN - RIGGIN AVE. STA: 57+00 - END
10	UTILITY & POTHOLING PLAN - SHIRK RD. STA: 5+00 - END
11	IMPROVEMENT PLAN & PROFILE - RIGGIN AVE. STA: 10+00 - 21+00
12	IMPROVEMENT PLAN & PROFILE - RIGGIN AVE. STA: 21+00 - 33+00
13	IMPROVEMENT PLAN & PROFILE - RIGGIN AVE. STA: 33+00 - 45+00
14	IMPROVEMENT PLAN & PROFILE - RIGGIN AVE. STA: 45+00 - 57+00
15	IMPROVEMENT PLAN & PROFILE - RIGGIN AVE. STA: 57+00 - 69+00
16	IMPROVEMENT PLAN & PROFILE - RIGGIN AVE. STA: 69+00 - END
17	IMPROVEMENT PLAN & PROFILE - SHIRK RD. STA: 5+00 - END
18	CROSS SECTIONS
19	CROSS SECTIONS
20	SIGNING, STRIPING & MARKING PLAN - RIGGIN AVE. STA: 10+00 - 33+00
21	SIGNING, STRIPING & MARKING PLAN - RIGGIN AVE. STA: 33+00 - 57+00
22	SIGNING, STRIPING & MARKING PLAN - RIGGIN AVE. STA: 57+00 - END
23	SIGNING, STRIPING & MARKING PLAN - SHIRK RD. STA: 5+00 - END
24	STREET LIGHTING & FIBER INTERCONNECT PLAN - RIGGIN AVE. STA: 10+00 - 33+00
25	STREET LIGHTING & FIBER INTERCONNECT PLAN - RIGGIN AVE. STA: 33+00 - 57+00
26	STREET LIGHTING & FIBER INTERCONNECT PLAN - RIGGIN AVE. STA: 57+00 - END
27	STREET LIGHTING & FIBER INTERCONNECT PLAN - SHIRK RD. STA: 5+00 - END
28	BUS TURNOUT DETAILS
29	CLANCY ST. & RIGGIN AVE. RAMP DETAILS
30	SHIRK RD. & RIGGIN AVE. RAMP DETAILS
31	DRIVE APPROACH DETAILS
32	CIVIL DETAILS
33	CIVIL DETAILS
34	CIVIL DETAILS
35	CIVIL DETAILS
36	CIVIL DETAILS
37	CIVIL DETAILS
38	TRAFFIC SIGNAL PLANS
39	PLANTING SOILS PLAN
40 - 41	IRRIGATION PLAN
42 - 46	IRRIGATION DETAILS & NOTES
47 - 51	TREE & GROUNDCOVER PLANS
52 - 54	PLANTING DETAILS & NOTES
55 - 59	SPECIFICATIONS

CITY OF VISALIA

THIS SET OF PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS & THE CITY OF VISALIA STANDARD SPECIFICATION & DETAILS. THE CITY DOES NOT ASSUME ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS ACCEPTANCE SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTION OF ERRORS OR OMISSIONS THAT ARE IN VIOLATION OF ANY LAW OR ORDINANCE.

DIEGO CORVERA P.E. — CIVIL ENGINEER, CITY OF VISALIA — Date

KYLE MCDONALD P.E. — CIVIL ENGINEER, 4-CREEKS, INC. — Date

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — KYLE MCDONALD — No. 83938 — STATE OF CALIFORNIA — CIVIL

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
COVER SHEET

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 1 OF 59

CITY OF VISALIA GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE 2018 EDITION OF CALTRANS' STANDARD PLANS AND SPECIFICATIONS, THE 2014 CA MUTCD, THE CURRENT EDITION OF THE CITY OF VISALIA ENGINEERING STANDARD SPECIFICATIONS AND ENGINEERING DESIGN & IMPROVEMENT STANDARDS, THE PLANS, AND ALL OTHER CONTRACT DOCUMENTS. WHERE CITY STANDARD DETAILS ARE SHOWN AS MODIFIED ON THESE PLANS, THE MODIFIED DETAIL SHALL BE USED.

2. AT LEAST 5 WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE INFORMATION SHOWN ON THESE PLANS WITH THE REFERENCED DOCUMENTS AND NOTIFY THE CITY OF VISALIA OF ANY DISCREPANCIES. NOTIFY THE CITY OF VISALIA OF ANY AND ALL CONFLICTS BETWEEN THIS SET OF PLANS AND THE ACTUAL SITE CONDITIONS. AND NOTIFY THE CITY OF VISALIA CONSTRUCTION MANAGER WHEN CONSTRUCTION WILL COMMENCE. THE PROJECT'S MANAGER WILL BE ASSIGNED AFTER THE AWARD FOR CONSTRUCTION.

3. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE HERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE CONSTRUCTION MANAGER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

4. CITY OF VISALIA, OR DESIGNATED RESPRESENTATIVE SHALL INSPECT ALL WORK PHASES FOR CONFORMANCE TO THE PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL ITEMS THAT REQUIRE INSPECTION WITH THE CITY INSPECTOR. REINFORCING SHALL NOT BE ENCASED IN CONCRETE WITHOUT PRIOR CITY OF VISALIA INSPECTIONS. LIKEWISE, CONCRETE AND OTHER IMPROVEMENTS SHALL NOT BE COVERED WITH EARTH PRIOR TO CITY OF VISALIA INSPECTION. ANY INSPECTIONS TO BE PERFORMED BY THE CITY SHALL REQUIRE 2 WORKING DAYS NOTICE. ANY WORK CONCEALED WITHOUT INSPECTION WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.

5. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

6. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 5 WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL "UNDERGROUND SERVICE ALERT" (USA) 1-800-227-2600 OR 811.

7. CONTRACTOR SHALL EXPOSE ALL EXISTING UNDERGROUND PIPELINES OR OTHER UNDERGROUND OBSTRUCTIONS TO VERIFY THAT THERE ARE NO GRADE CONFLICTS PRIOR TO LAYING ANY GRAVITY PIPELINES.

8. MONUMENTS AND BENCHMARKS SHALL NOT BE DISTURBED WITHOUT THE CITY'S CONSENT.

9. CONTRACTOR SHALL NOTIFY THE CITY'S LAND SURVEYOR 5 WORKING DAYS PRIOR TO DISTURBING ANY SURVEY MONUMENTS OR BENCHMARKS. CONTRACTOR WILL BE RESPONSIBLE FOR RECONSTRUCTING SURVEY MONUMENTS / BENCHMARKS IN ACCORDANCE WITH CITY STANDARDS, AT NO ADDITIONAL COST.

10. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION SURVEY STAKES AND PROPERTY LINE MARKERS. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY CARELESS REMOVALS OR DESTRUCTION.

11. ADJUST MANHOLES, VALVE BOXES AND OTHER UTILITY BOXES TO GRADE WITHIN NEWLY CONSTRUCTED AREAS.

12. CONTRACTOR SHALL PROVIDE PEDESTRIAN, VEHICLE, WORKER, AND TREE PROTECTION AS NECESSARY FOR THE FULL DURATION OF THE PROJECT.

13. CONTRACTOR SHALL INSTALL APPROVED TRAFFIC CONTROL SIGNS PRIOR TO COMMENCEMENT OF ANY WORK.

14. CONTRACTOR SHALL KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS THROUGH ALL PHASES OF CONSTRUCTION.

15. CONTRACTOR SHALL SWEEP ALL STREETS, ALLEYS, AND WALKS PRIOR TO CITY ACCEPTANCE OF PROJECT.

16. ALL EXCESS MATERIAL AND/OR DEBRIS SHALL BE REMOVED UPON COMPLETION OF THIS PROJECT.

17. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL WASTE MATERIALS AND SALVAGE OR RELOCATE OTHER STRUCTURES AS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY'S REPRESENTATIVE.

18. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR PRIVATE PROPERTY ADJACENT TO WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.

19. THE LIMITS OF WORK ARE ENCOMPASSED BY THE RIGHT-OF-WAY AND TEMPORARY CONSTRUCTION EASEMENTS, AND SHALL INCLUDE ONLY SUCH WORK AS IS SHOWN ON THESE PLANS OR AS SPECIFIED IN THE SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS.

20. PRIOR TO CONSTRUCTING ANY IMPROVEMENTS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL MATCH EXISTING ELEVATIONS SHOWN ON THE PLANS ARE ACCURATE AND FOR VERIFYING THAT NONE OF THE MAXIMUM ACCESSIBILITY SLOPES ARE VIOLATED. CONTRACTOR SHALL NOTIFY CITY CONSTRUCTION MANAGER IMMEDIATELY IF ANY PROBLEMS EXIST. ANY IMPROVEMENTS THAT REQUIRE REMOVAL AND REPLACEMENT BECAUSE OF THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS NOTE SHALL BE COMPLETED BY THE CONTRACTOR AT HIS OR HER OWN EXPENSE.

21. ANY RELOCATION OF PUBLIC UTILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE UTILITY COMPANY, INCLUDING FEES, BONDS, PERMITS AND WORKING CONDITIONS, ETC.

22. APPROPRIATE APPROVALS SHALL BE OBTAINED PRIOR TO PROCEEDING WITH ANY WORK IN THE VICINITY OF IRRIGATION DITCHES, CREEKS, ASSOCIATED IRRIGATION FACILITIES, AND RAILROADS WHETHER OR NOT SHOWN ON THESE PLANS.

23. ANY LANDSCAPING AND/OR IRRIGATION DISTURBED OR DESTROYED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN-KIND.

24. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING STABILIZED CONSTRUCTION ENTRANCES IN ORDER TO REDUCE OR ELIMINATE TRACKING OF SEDIMENT ONTO PUBLIC STREETS. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTION DITCHES, PROTECTIVE BERMS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT IMPROVEMENTS FROM RUN-OFF MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS.

25. CONTRACTOR SHALL MAINTAIN DUST CONTROL ABOUT THE SITE OF WORK AS SPECIFIED BY "CALTRANS STANDARD SPECIFICATIONS 2018".

26. CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE CONTRACT IN A SATISFACTORY MANNER PROVIDING ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SPECIFIED OTHERWISE.

27. CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE CITY, ITS ENGINEER AND CONSULTANTS, THEIR OFFICERS, EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGES ARISING OR ALLEGED FROM THE PERFORMANCE OF THE WORK DESCRIBED ON THESE PLANS, NOT INCLUDING NEGLIGENCE ON THE PART OF THE CITY.

28. THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE; HOWEVER, THE CITY OF VISALIA AND 4CREEKS INC. ASSUME NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN, OR FOR THE INADVERTENT OMISSION OF ANY SUCH INFORMATION. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY COMPANIES AND OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF THIS PROJECT.

29. THE DEPTH OF THE EXISTING DRY UTILITIES (CABLE, PHONE, AND POWER), WATER MAINS, AND GAS MAINS IS SHOWN AT THE MOST PROBABLE LOCATION, BASED ON INDUSTRY STANDARDS. 4CREEKS INC. AND THE CITY OF VISALIA DO NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN. CONTRACTOR SHALL CONFIRM ALL DEPTHS OF EXISTING UTILITIES, AS NECESSARY FOR CONSTRUCTION OF THE PROJECT PRIOR TO CONSTRUCTION. IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES/CONFLICTS.

30. INSTALL NEW SIGNS WITH PROJECT. CONTRACTOR SHALL ALSO REPAIR AND REPLACE ALL CURB, GUTTER, PAVEMENT, SIDEWALK, VAULTS, MAILBOXES, AND OTHER STRUCTURE'S DAMAGED DURING THE COURSE OF CONSTRUCTION AT HIS OWN EXPENSE.

31. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FLOWLINES PROPOSED TO BE CONNECTED TO, PRIOR TO LAYING PIPE. ANY DISCREPANCIES AND/OR CONFLICTS WITH THE APPROVED PLANS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE CITY OF VISALIA CONSTRUCTION MANAGER AND DESIGN ENGINEER.

32. CONTRACTOR IS RESPONSIBLE FOR RE-CONNECTING EXISTING UTILITY SERVICES WHERE THE UTILITY MAIN-LINE HAS BEEN RELOCATED DUE TO CONSTRUCTION.

33. PRIOR TO CONSTRUCTION CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AND CONFIRM THAT NO CONFLICTS EXIST WITH NEW IMPROVEMENTS SHOWN ON THESE PLANS INCLUDING PAVEMENT SECTIONS. CONTRACTOR SHALL PROVIDE A SIGNED CERTIFICATION LETTER TO THE CITY PRIOR TO STARTING CONSTRUCTION THAT STATES NO CONFLICTS EXIST OR THAT IDENTIFIES CONFLICTS FOR CITY TO ADDRESS.

34. THE CITY OF VISALIA WILL PROVIDE AN INSPECTOR AND A TESTING LAB FOR THIS PROJECT.

35. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THE VICINITY SHALL BE BORNE BY THE CONTRACTOR AND NO ADDITIONAL COMPENSATION SHALL BE PROVIDED.

36. ALL CONCRETE AND ASPHALT IMPROVEMENTS SHALL MEET CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. CITY OF VISALIA STANDARD REQUIREMENTS AND THESE DRAWINGS. CONSTRUCTION TOLERANCES SHALL NOT BE CONSTRUED TO ALLOW A CONTRACTOR TO VIOLATE ADA REQUIREMENTS. IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES SHOWN ON THE PLANS, OR THAT BECOME APPARENT IN THE FIELD PRIOR TO CONSTRUCTION.

37. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, AND FOR COORDINATING WITH THE CITY CONSTRUCTION MANAGER TO SCHEDULE INSPECTIONS AND MATERIAL TESTING

38. PRIOR TO START OF WORK, THE CONTRACTOR SHALL SECURE A CITY OF VISALIA ENCROACHMENT PERMIT PRIOR TO DOING ANY WORK IN THE CITY.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION AND DEMOLISH AND OR REMOVE FROM THE AREA OF DESIGNATED PROJECT EARTHWORK ALL STRUCTURES, BOTH SURFACE AND SUBSURFACE, TREES, BRUSH, ROOTS, DEBRIS, ORGANIC MATTER, AND ALL OTHER MATTER DETERMINED BY THE INSPECTOR TO BE DELETERIOUS, SUCH MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
2. ALL RETURN RADII AND CURB DATA ARE TO FACE OF CURB UNLESS SHOWN OR NOTED OTHERWISE.
3. ALL QUANTITIES AND PAY ITEMS ARE AND WILL BE BASED ON HORIZONTAL MEASUREMENTS.
4. LENGTHS OF SANITARY SEWERS AND STORM DRAINS ARE HORIZONTAL DISTANCES FROM CENTER TO CENTER OF STRUCTURES, ROUNDED OFF TO THE NEAREST FOOT.
5. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORDED INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEES MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 5 WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL UNDERGROUND SERVICE ALERT (U.S.A.) AT 1-800-227-2600. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED AND MERGED INTO THE CONTRACT UNIT PRICE.
6. ALL EXISTING REMAINING UTILITIES AND REMAINING IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE CITY OF VISALIA CONSTRUCTION MANAGER, AT THE CONTRACTOR'S SOLE EXPENSE.
7. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING THE LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ENGINEER, OR CITY.
8. NO CONCRETE SHALL BE POURED FOR NEW IMPROVEMENTS UNTIL FORMWORK AND REBAR HAS BEEN INSPECTED AND APPROVED BY THE CITY INSPECTOR. IF THE CONTRACTOR FAILS TO OBTAIN INSPECTIONS PRIOR TO POURING THE CITY HAS THE RIGHT TO REJECT THE CONCRETE AND REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE THE IMPROVEMENTS AT ITS OWN EXPENSE.
9. 4CREEKS, INC DOES NOT SPECIFY NOR RECOMMEND THE USE OR INSTALLATION OF ANY MATERIAL OR EQUIPMENT WHICH IS MADE FROM, OR WHICH CONTAINS ASBESTOS FOR USE IN THE CONSTRUCTION OF THESE IMPROVEMENTS. ANY PARTY INSTALLING OR USING SUCH MATERIALS OR EQUIPMENT SHALL BE SOLELY RESPONSIBLE FOR ALL INJURIES, DAMAGES, OR LIABILITIES, OF ANY KIND, CAUSED BY THE USE OF SUCH MATERIAL OR EQUIPMENT. THE PROVISIONS OF THIS NOTE SHALL APPLY UNLESS THEY ARE EXPRESSLY WAIVED IN WRITING BY 4CREEKS, INC.

PROJECT SPECIFIC NOTES:

1. THE CONTRACTOR SHALL TEST ALL LANDSCAPE IRRIGATION SYSTEMS IN THE PRESENCE OF THE CITY INSPECTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ALL LANDSCAPING SYSTEMS AT THE END OF CONSTRUCTION IN THE PRESENCE OF THE CITY INSPECTOR AND SHALL MAKE ANY REPAIRS NECESSARY FROM DAMAGE CAUSED DURING CONSTRUCTION.
2. IF CONCRETE CURB AND GUTTER IMPROVEMENTS ARE UNDERMINED OR LOSS OF SUPPORT OCCURS DUE TO CONTRACTOR'S EXCAVATION MEANS AND METHODS THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILLING THE VOIDS WITH A SAND CEMENT SLURRY MEETING CITY OF VISALIA REQUIREMENTS.
3. CONTRACTOR SHALL BE REQUIRED TO SUPPORT EXISTING UNDERGROUND UTILITIES DURING TRENCHING ACTIVITIES IN A MANNER THAT PREVENTS DAMAGE OF THE UTILITY. IF THE UTILITY BECOMES DAMAGED THE CONTRACTOR SHALL MAKE REPAIRS AT HIS OWN EXPENSE.
4. WHERE NEW IMPROVEMENTS ARE BEING INSTALLED NEAR EXISTING UTILITY POLES OR STRUCTURES THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING THE POLES OR STRUCTURES IN PROXIMITY DAMAGE AT HIS OWN EXPENSE. CONTRACTOR SHALL REPAIR ANY DAMAGED EXISTING INFRASTRUCTURE AT HIS OWN EXPENSE.
5. CONTRACTOR SHALL PROVIDE WRITTEN AND VERBAL NOTIFICATION TO RESIDENTS AND BUSINESSES WITHIN 5 DAYS IN ADVANCE OF CONSTRUCTION.
6. CONTRACTOR SHALL ADJUST MANHOLES, VALVE BOXES, AND OTHER UTILITY BOXES TO GRADE. ADJUST MANHOLES AND VALVE BOXES TO FINISH GRADE AFTER PAVING IS COMPLETE.
7. ALL SALVAGED MATERIALS SHALL BE DELIVERED TO THE CITY CORPORATION YARD LOCATED AT 336 N. BEN MADDOX WAY. THE CONTRACTOR SHALL NOTIFY THE CITY CONSTRUCTION MANAGER AT LEAST 2 WORKING DAYS PRIOR TO DELIVERY FOR COORDINATION. CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR SAFELY UNLOADING MATERIAL.

GRADING NOTES:

1. ALL GRADING SHALL BE DONE IN CONFORMANCE WITH THE STATE OF CALIFORNIA BUILDING CODE, LATEST EDITION, THE CITY OF VISALIA IMPROVEMENT STANDARDS, AND APPLICABLE SECTION OF THE CALTRANS STANDARD SPECIFICATIONS, LATEST EDITION.
2. BACKFILL OR ONSITE UNDERGROUND UTILITIES PLACED ON THE SITE SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90% IN LANDSCAPE AREAS. ALL BACKFILL IN TRENCHES IN PAVED AND OTHER AREAS TO BE COMPACTED ACCORDING TO THE CITY OF VISALIA STANDARD DETAILS.
3. ALL SPOIL PILES SHALL HAVE SIDE SLOPES AS REQUIRED FOR SAFETY IN ACCORDANCE WITH APPLICABLE CA OSHA REQUIREMENTS.

STREET NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR RAISING ALL VALVES, MANHOLES, AND ANY OTHER VAULTS AND BOXES FOUND IN THE STREET WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH HIS CONSTRUCTION.

TRENCHING NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ALL TRENCHES. IF TRENCHES OR PIPING BECOME DAMAGED DUE TO WATER INFILTRATION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE TRENCH AND PIPING TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

WATER SYSTEM NOTES:

1. ALL PIPING WORK WITHIN THE STREET RIGHT OF WAY SHALL BE IN CONFORMANCE WITH THE CITY OF VISALIA IMPROVEMENT STANDARDS.
2. ALL WORK OUTSIDE THE STREET RIGHT OF WAY SHALL BE CLASSIFIED AS ON-SITE WATER PIPING AND SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS, LATEST EDITION. THE REQUIREMENTS BELOW ARE FOR ON-SITE PIPING.
3. FIRE SERVICE LINES AND DOMESTIC WATER SERVICE LINES 4 INCHES AND LARGER SHALL MEET THE FOLLOWING REQUIREMENTS. ALL PIPELINES SHALL MEET THE REQUIREMENTS OF AWWA C900 FOR PVC PIPE DR 18 (235 PSI) AND SHALL HAVE BELL AND SPIGOT JOINTS IN COMPLIANCE WITH ASTM 3139 WITH GASKETS MEETING ASTM F 477. ALL FITTINGS SHALL BE DUCTILE IRON PRESSURE CLASS 250 CONFORMING TO ASSA STD 153 FOR PUSH-ON AND MECHANICAL JOINTS AND AWWA C110 FOR FLANGED FITTINGS. ALL FITTINGS SHALL HAVE A CEMENT MORTAR LINING CONFORMING TO AWWA C104 FLANGED FITTINGS SHALL ONLY BE USED WHERE NOTED ON THE DRAWINGS.
4. DOMESTIC WATER LINES SMALLER THAN 4 INCHES SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE FOLLOWING REQUIREMENTS. ASTM D1785, PVC 1120, SCHEDULE 40, 160 PSIG MIN WITH SOLVENT WELDED JOINTS.
5. GATE VALVES: ALL GATE VALVES SHALL MEET OR EXCEED THE LATEST REVISION OF AWWA C515 FOR REDUCED WALL RESILIENT-SEATED GATE VALVES (OR C509 FOR RESILIENT SEATED GATE VALVES) AND SHALL BE PROVIDED WITH LEFT HAND TO OPEN, DUCTILE IRON (OR CAST IRON) BODY WITH EPOXY COATING INSIDE AND OUT COMPLYING WITH THE LATEST REVISION OF AWWA C550, NUT OPERATED NON-RISING STEM WITH 2 FOOT SQUARE OPERATING NUT, TWO O-RING STEM SEALS ABOVE THE THRUST COLLAR AND ONE BELOW, O-RING GASKETS AND 304 STAINLESS STEEL BOLTS AND NUTS ON BONNET AND STUFFING BOX AND EPDM RUBBER ENCAPSULATED WEDGIE (WHEN AVAILABLE AT NO EXTRA COST. ALL GATE VALVES SHALL BE MANUFACTURED BY MUELLER COMPANY, VALVE FITTING COMPANY, KENNEDY VALVE, CO. CLOW VALVE CO, AMERICAN FLOW CONTROL, AMERICAN AVK CO. OR US PIPE. 2 INCH AND SMALLER GATE VALVES SHALL BE CLASS 125 WITH STANDARD THREAD, BRONZE WITH WHEEL, AND BE MANUFACTURED BY MILWAUKEE (NO. 105) OR NIBCO.
6. CHECK VALVES: UNLESS SPECIFIED OTHERWISE, ALL CHECK VALVES SHALL BE SWING TYPE WITH SPRING AND LEVER AND SHALL COMPLY WITH THE LATEST REVISION OF AWWA C508. THE VALVES SHALL HAVE CLASS 125 FLANGED ENDS UNLESS SHOWN OTHERWISE ON THE DRAWINGS. CHECK VALVES SHALL BE MANUFACTURED BY MUELLER, CLOW OR M&H.
7. THRUST BLOCKS SHALL BE CONSTRUCTED AT ALL HORIZONTAL AND VERTICAL FITTINGS FOR PIPES 4 INCH DIAMETER AND LARGER ACCORDING TO CITY OF VISALIA STANDARDS.
8. FIRE HYDRANT ASSEMBLIES: FIRE HYDRANTS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH CITY OF VISALIA STANDARDS.
9. SERVICE LINES: DOMESTIC AND IRRIGATION SERVICE LINES AND METER CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF VISALIA STANDARDS AS APPLICABLE FOR THE SERVICE.
10. THIS PLAN HAS BEEN PREPARED WITH THE INTENT THAT 4CREEKS, INC. WILL BE PERFORMING THE CONSTRUCTION STAKING FOR THE COMPLETE PROJECT. IF, HOWEVER ANOTHER ENGINEERING AND/OR SURVEYING FIRM SHOULD BE EMPLOYED TO USE THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING, NOTICE IS HEREBY GIVEN THAT THE FIRM OF 4CREEKS, INC. WILL NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED OR MITIGATED IF 4CREEKS HAD PERFORMED THE STAKING WORK.

LEGEND

BC	BEGIN CURVE	MB	MAILBOX	PROPOSED CONCRETE	EXISTING ASPHALT PAVEMENT	EXISTING STREET SIGN
BCR	BEGIN CURB RETURN	MJ	MECHANICAL JOINT			EXISTING SURVEY MONUMENT
BP: STA	ALIGNMENT BEGINNING POINT	OG	ORIGINAL GROUND	PROPOSED ASPHALT CONCRETE	EXISTING CONCRETE	EXISTING CHRYSTIE BOX (UTILITY TYPE)
BSW	BACK OF SIDEWALK	P	PAVEMENT	CHAIN LINK FENCE	EXISTING GAS LINE	EXISTING TELEPHONE PEDESTAL
C	CONCRETE	PCC	POINT OF COMPOUND CURVATURE	STORM DRAIN PIPE LINE	ELECTRIC AND COMMUNICATION OVERHEAD LINE	EXISTING BOLLARD
CR	CROWN OF ROAD	POC	POINT OF CURVATURE	SANITARY SEWER PIPE LINE	EXISTING CHAIN LINK FENCE	EXISTING TELEPHONE VAULT
C&G	CURB & GUTTER	PRC	POINT OF REVERSE CURVATURE	DRAINAGE INLET	EXISTING WOODEN FENCE	EXISTING ELECTRIC VAULT
EP	EDGE OF PAVEMENT	RD	EDGE OF ROAD	FIRE HYDRANT ASSEMBLY	EXISTING IRON FENCE	EXISTING POWER POLE
EP: STA	ALIGNMENT END POINT	(R)	RADIAL BEARING	STREET LIGHT	EXISTING AT&T OVERHEAD LINE	EXISTING GUY ANCHOR
EC	END CURVE	S=0.0000	SLOPE, IN FOOT PER FOOT	WATER METER	EXISTING ELECTRICAL OVERHEAD LINE	EXISTING STORM DRAIN MANHOLE
ECR	END CURB RETURN	SS	SANITARY SEWER	WATER VALVE	EXISTING ELECTRICAL UNDERGROUND CONDUIT	EXISTING SEWER MANHOLE
(000.00)	EXISTING ELEVATION	SSMH	SANITARY SEWER MANHOLE	STREET SIGN	EXISTING CENTRAL VALLEY INDEPENDENT NETWORK LINE	PROPERTY LINE
FDR-C	FULL DEPTH RECLAMATION W/ CEMENT	STA	STATION	STORM DRAIN MANHOLE	EXISTING STORM DRAIN PIPE LINE	EXIST. RIGHT OF WAY
FL	FLOW LINE	TC	TOP OF CURB	SEWER MANHOLE	EXISTING SANITARY SEWER PIPE LINE	SECTION LINE
FTG	TOP OF FOOTING ELEVATION	TOE	TOE OF SLOPE	"R" VALUE	EXISTING DRAINAGE INLET	CENTER LINE
GB	GRADE BREAK	000.00	PROPOSED ELEVATION	PROPOSED LANDSCAPE AREA	EXISTING FIRE HYDRANT ASSEMBLY	IOD
GV	GATE VALVE	SD	STORM DRAIN		EXISTING STREET LIGHT	
HMA	HOT MIX ASPHALT	SDMH	STORM DRAIN MANHOLE		EXISTING WATER METER	
HP	HINGE POINT	W	WATER LINE		EXISTING WATER VALVE	
INV.	INVERT					
LIP	LIP OF GUTTER					

NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

DRW BY: MH | CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
GENERAL NOTES, LEGEND & ABBREVIATIONS

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 2 OF 59

Know what's **below.**
Call before you dig.

811

NORTH

40' 0' 40'

GENERAL DEMOLITION NOTES:

1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. CONTRACTOR TO REMOVE AND DISPOSE OF ALL VEGETATION, CONCRETE, IRRIGATION SYSTEMS, ASPHALT, AGGREGATE BASE , SOIL, FENCES, STRUCTURES, ETC. WITHIN APPROXIMATE LIMITS OF CLEARING, GRUBBING, AND DEMOLITION; UNLESS OTHERWISE NOTED ON THESE PLANS.
3. ALL EXISTING STREET SIGNS THAT CANNOT BE RE-USED SHALL BE RETURNED TO THE CITY OF VISALIA CORP. YARD.
4. ANY EXISTING MANHOLES AND/OR WATER VALVES ENCOUNTERED WHETHER OR NOT SHOWN ON THESE PLANS SHALL BE PROTECTED AND ADJUSTED TO FINISH GRADE.
5. ALL CONCRETE AND ASPHALT LOCATED OUTSIDE DEMOLITION LIMITS TO BE PROTECTED IN PLACE.
6. EXISTING IMPROVEMENTS AND UTILITIES TO BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE ON THESE PLANS.
7. ALL ORCHARD TREES WITHIN CITY RIGHT OF WAY TO BE REMOVED, WHETHER SHOWN ON PLANS OR NOT. DAYLIGHT GRADE AT 4:1 MAX. SLOPE TO EXISTING GRADE.

DEMOLITION NOTES (SHEETS 3-6 ONLY)

1. REMOVE & RELOCATE EXISTING POWER / UTILITY POLE / GUY WIRE (TO BE DONE BY SOUTHERN CALIFORNIA EDISON)
2. REMOVE EXISTING ASPHALT CONCRETE
3. SAWCUT EXISTING ASPHALT CONCRETE TO A NEAT CLEAN ON-GRADE EDGE
4. SAWCUT & REMOVE EXISTING CURB & GUTTER / CURB
5. REMOVE & SALVAGE EXISTING SIGN
6. REMOVE & RELOCATE EXISTING ELECTRICAL BOX. (TO BE DONE BY SOUTHERN CALIFORNIA EDISON)
7. REMOVE EXISTING IRRIGATION SYSTEM, INCLUDING PUMPS, IRRIGATION PLUMBING, CONCRETE HEADWALL, ETC. INSIDE CITY RIGHT OF WAY AND SALVAGE TO THE CITY
8. REMOVE FIRST ROW OF ORCHARD TO DAYLIGHT GRADE AT 4:1 MAX. SLOPE TO EXISTING GRADE. REMOVE TREE AND STUMP TO 12" BELOW FINISHED GRADE. COORDINATE WITH PROPERTY OWNER ON TIMING OF REMOVAL AND IMPACTS TO EXIST. ORCHARD OR FARMING OPERATION.
9. REMOVE AND RELOCATE EXISTING SIGN. SEE SIGNING, STRIPING, & MARKING PLANS FOR NEW LOCATION
10. REMOVE EXISTING OAK TREE CONTRACTOR TO FOLLOW URBAN FORESTRY OAK TREE REMOVAL PROCESS FOR ALL OAK TREES.
11. SAWCUT AND REMOVE EXISTING ASPHALT DIKE
12. REMOVE AND DISPOSE OF EXISTING MAILBOX
13. REMOVE EXISTING CORRAL FENCE
14. REMOVE EXISTING BOLLARD
15. REMOVE EXISTING TELEPHONE PEDESTAL

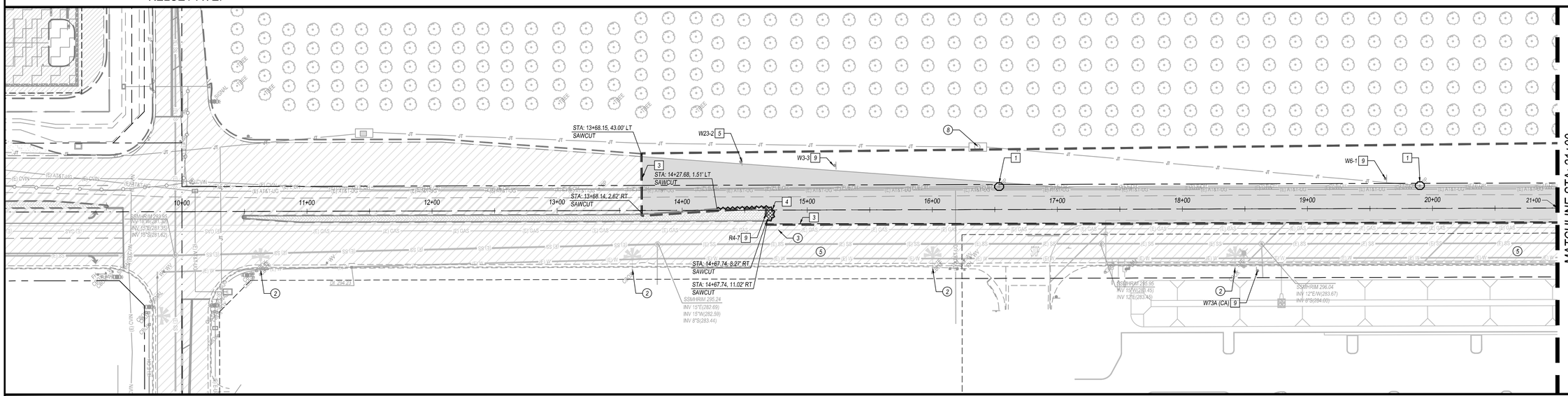
PROTECTION NOTES (SHEETS 3-6 ONLY)

1. PROTECT IN PLACE EXISTING POWER POLE / UTILITY POLE / GUY WIRE
2. PROTECT IN PLACE EXISTING STREET LIGHT
3. PROTECT IN PLACE EXISTING GAS LINE
4. PROTECT IN PLACE EXISTING SANITARY SEWER MANHOLE
5. PROTECT IN PLACE EXISTING ASPHALT CONCRETE
6. PROTECT IN PLACE EXISTING SIGN
7. PROTECT IN PLACE EXISTING FENCE
8. PROTECT IN PLACE EXISTING UTILITY VAULT
9. PROTECT IN PLACE EXISTING MEDIAN CURB

LEGEND (SHEETS 3-6 ONLY)

- APPROXIMATE LIMITS OF CLEARING, GRUBBING, & DEMOLITION
- EXISTING ASPHALT PAVEMENT
- EXISTING PAVEMENT REMOVAL
- EXISTING CONCRETE REMOVAL
- EXISTING CURB / CURB & GUTTER REMOVAL
- EXISTING FENCE REMOVAL
- SAWCUT LINE
- EXISTING VEGETATION REMOVAL
- EXISTING VEGETATION PROTECTION
- EXISTING POWER POLE
- EXISTING UTILITY POLE

KELSEY AVE.



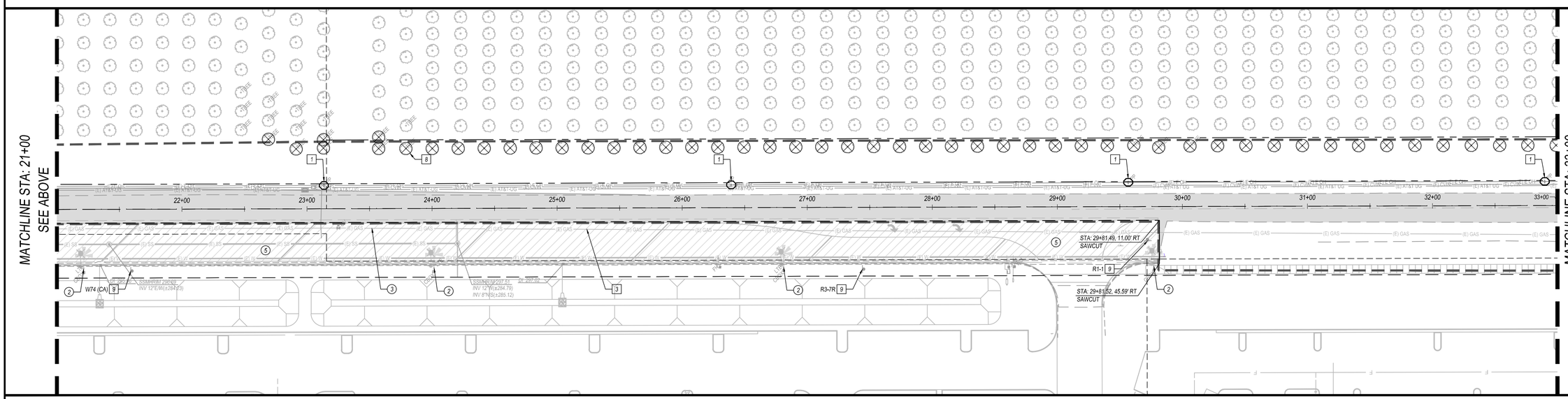
UTILITY ABBREVIATION LEGEND

DTT - DEPTH TO TOP
ATT - AT&T INC.
COM - COMCAST
CW - CALWATER
SCE - SOUTHERN CALIFORNIA EDISON
SCG - SOUTHERN CALIFORNIA GAS
CNTL - CENTURY LINK

EXISTING UTILITY LINE LEGEND

- (E) AT&T UG — ATT UNDERGROUND
- (E) COMCAST UG — COM UNDERGROUND
- (E) W — CW
- (E) E OH — SCE OVERHEAD
- (E) E&C OH — SCE AND COM OVERHEAD
- (E) E,T&C OH — SCE, ATT AND COM OVERHEAD
- (E) GAS — SCG

RIGGIN AVE. STA: 10+00 – 21+00



RIGGIN AVE. STA: 21+00 – 33+00

NO.	DATE	DESCRIPTION

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS
CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
TOPOGRAPHIC & DEMOLITION PLAN

PROJ. NO. 20205	
DATE:2/1/22	
DESIGN BY: KM	DRAWN BY:MH
SCALE: AS SHOWN	
SHEET 3 OF 59	

Know what's below. Call before you dig.

NORTH

40' 0' 40'

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2. CONTRACTOR TO REMOVE AND DISPOSE OF ALL VEGETATION, CONCRETE, IRRIGATION SYSTEMS, ASPHALT, AGGREGATE BASE , SOIL, FENCES, STRUCTURES, ETC. WITHIN APPROXIMATE LIMITS OF CLEARING, GRUBBING, AND DEMOLITION; UNLESS OTHERWISE NOTED ON THESE PLANS.
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4. ANY EXISTING MANHOLES AND/OR WATER VALVES ENCOUNTERED WHETHER OR NOT SHOWN ON THESE PLANS SHALL BE PROTECTED AND ADJUSTED TO FINISH GRADE.
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6. EXISTING IMPROVEMENTS AND UTILITIES TO BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE ON THESE PLANS.
7. ALL ORCHARD TREES WITHIN CITY RIGHT OF WAY TO BE REMOVED, WHETHER SHOWN ON PLANS OR NOT. DAYLIGHT GRADE AT 4:1 MAX. SLOPE TO EXISTING GRADE.

DEMOLITION NOTES (SHEETS 3-6 ONLY)

1. REMOVE & RELOCATE EXISTING POWER / UTILITY POLE / GUY WIRE (TO BE DONE BY SOUTHERN CALIFORNIA EDISON)
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3. SAWCUT EXISTING ASPHALT CONCRETE TO A NEAT CLEAN ON-GRADE EDGE
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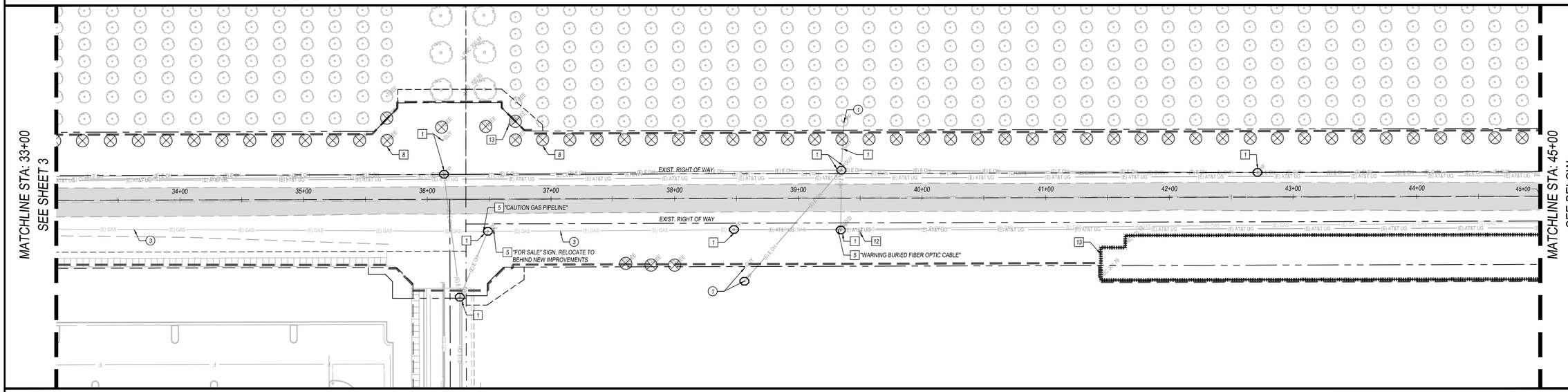
5. REMOVE & SALVAGE EXISTING SIGN
6. REMOVE & RELOCATE EXISTING ELECTRICAL BOX. (TO BE DONE BY SOUTHERN CALIFORNIA EDISON)
7. REMOVE EXISTING IRRIGATION SYSTEM, INCLUDING PUMPS, IRRIGATION PLUMBING, CONCRETE HEADWALL, ETC. INSIDE CITY RIGHT OF WAY AND SALVAGE TO THE CITY
8. REMOVE FIRST ROW OF ORCHARD TO DAYLIGHT GRADE AT 4:1 MAX. SLOPE TO EXISTING GRADE. REMOVE TREE AND STUMP TO 12" BELOW FINISHED GRADE. COORDINATE WITH PROPERTY OWNER ON TIMING OF REMOVAL AND IMPACTS TO EXIST. ORCHARD OR FARMING OPERATION.
9. REMOVE AND RELOCATE EXISTING SIGN. SEE SIGNING, STRIPING, & MARKING PLANS FOR NEW LOCATION
10. REMOVE EXISTING OAK TREE CONTRACTOR TO FOLLOW URBAN FORESTRY OAK TREE REMOVAL PROCESS FOR ALL OAK TREES.
11. SAWCUT AND REMOVE EXISTING ASPHALT DIKE
12. REMOVE AND DISPOSE OF EXISTING MAILBOX
13. REMOVE EXISTING CORRAL FENCE
14. REMOVE EXISTING BOLLARD
15. REMOVE EXISTING TELEPHONE PEDESTAL

PROTECTION NOTES (SHEETS 3-6 ONLY)

1. PROTECT IN PLACE EXISTING POWER POLE / UTILITY POLE / GUY WIRE
2. PROTECT IN PLACE EXISTING STREET LIGHT
3. PROTECT IN PLACE EXISTING GAS LINE
4. PROTECT IN PLACE EXISTING SANITARY SEWER MANHOLE
5. PROTECT IN PLACE EXISTING ASPHALT CONCRETE
6. PROTECT IN PLACE EXISTING SIGN
7. PROTECT IN PLACE EXISTING FENCE
8. PROTECT IN PLACE EXISTING UTILITY VAULT
9. PROTECT IN PLACE EXISTING MEDIAN CURB

LEGEND (SHEETS 3-6 ONLY)

- APPROXIMATE LIMITS OF CLEARING, GRUBBING, & DEMOLITION
- EXISTING ASPHALT PAVEMENT
- EXISTING PAVEMENT REMOVAL
- EXISTING CONCRETE REMOVAL
- EXISTING CURB / CURB & GUTTER REMOVAL
- EXISTING FENCE REMOVAL
- SAWCUT LINE
- EXISTING VEGETATION REMOVAL
- EXISTING VEGETATION PROTECTION
- EXISTING POWER POLE
- EXISTING UTILITY POLE



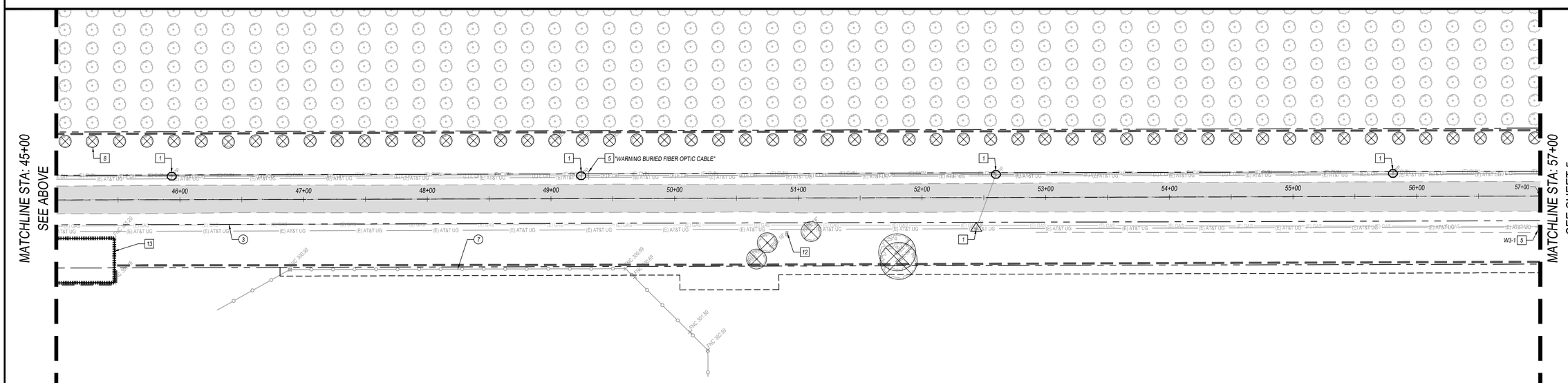
UTILITY ABBREVIATION LEGEND

DTT - DEPTH TO TOP
ATT - AT&T INC.
COM - COMCAST
CW - CALWATER
SCE - SOUTHERN CALIFORNIA EDISON
SCG - SOUTHERN CALIFORNIA GAS
CNTL - CENTURY LINK

RIGGIN AVE. STA: 33+00 – 45+00

EXISTING UTILITY LINE LEGEND

(E) AT&T UG	ATT UNDERGROUND	(E) E&C OH	SCE AND COM OVERHEAD
(E) COMCAST UG	COM UNDERGROUND	(E) E,T&C OH	SCE, ATT AND COM OVERHEAD
(E) W	CW	(E) GAS	SCG
(E) E OH	SCE OVERHEAD		



RIGGIN AVE. STA: 45+00 – 57+00

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER * MICHAEL HOLLAND * No. 71183 * CIVIL * STATE OF CALIFORNIA

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
TOPOGRAPHIC & DEMOLITION PLAN

PROJ. NO. 20205	
DATE:2/1/22	
DESIGN BY: KM	DRAWN BY:MH
SCALE: AS SHOWN	
SHEET 4 OF 59	

Know what's below. Call before you dig.

NORTH

40' 0' 40'

GENERAL DEMOLITION NOTES:

1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. CONTRACTOR TO REMOVE AND DISPOSE OF ALL VEGETATION, CONCRETE, IRRIGATION SYSTEMS, ASPHALT, AGGREGATE BASE , SOIL, FENCES, STRUCTURES, ETC. WITHIN APPROXIMATE LIMITS OF CLEARING, GRUBBING, AND DEMOLITION; UNLESS OTHERWISE NOTED ON THESE PLANS.
3. ALL EXISTING STREET SIGNS THAT CANNOT BE RE-USED SHALL BE RETURNED TO THE CITY OF VISALIA CORP. YARD.
4. ANY EXISTING MANHOLES AND/OR WATER VALVES ENCOUNTERED WHETHER OR NOT SHOWN ON THESE PLANS SHALL BE PROTECTED AND ADJUSTED TO FINISH GRADE.
5. ALL CONCRETE AND ASPHALT LOCATED OUTSIDE DEMOLITION LIMITS TO BE PROTECTED IN PLACE.
6. EXISTING IMPROVEMENTS AND UTILITIES TO BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE ON THESE PLANS.
7. ALL ORCHARD TREES WITHIN CITY RIGHT OF WAY TO BE REMOVED, WHETHER SHOWN ON PLANS OR NOT. DAYLIGHT GRADE AT 4:1 MAX. SLOPE TO EXISTING GRADE.

DEMOLITION NOTES (SHEETS 3-6 ONLY)

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2. REMOVE EXISTING ASPHALT CONCRETE
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14. REMOVE EXISTING BOLLARD
15. REMOVE EXISTING TELEPHONE PEDESTAL

PROTECTION NOTES (SHEETS 3-6 ONLY)

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9. PROTECT IN PLACE EXISTING MEDIAN CURB

LEGEND (SHEETS 3-6 ONLY)

- APPROXIMATE LIMITS OF CLEARING, GRUBBING, & DEMOLITION
- EXISTING ASPHALT PAVEMENT
- EXISTING PAVEMENT REMOVAL
- EXISTING CONCRETE REMOVAL
- EXISTING CURB / CURB & GUTTER REMOVAL
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- EXISTING VEGETATION REMOVAL
- EXISTING VEGETATION PROTECTION
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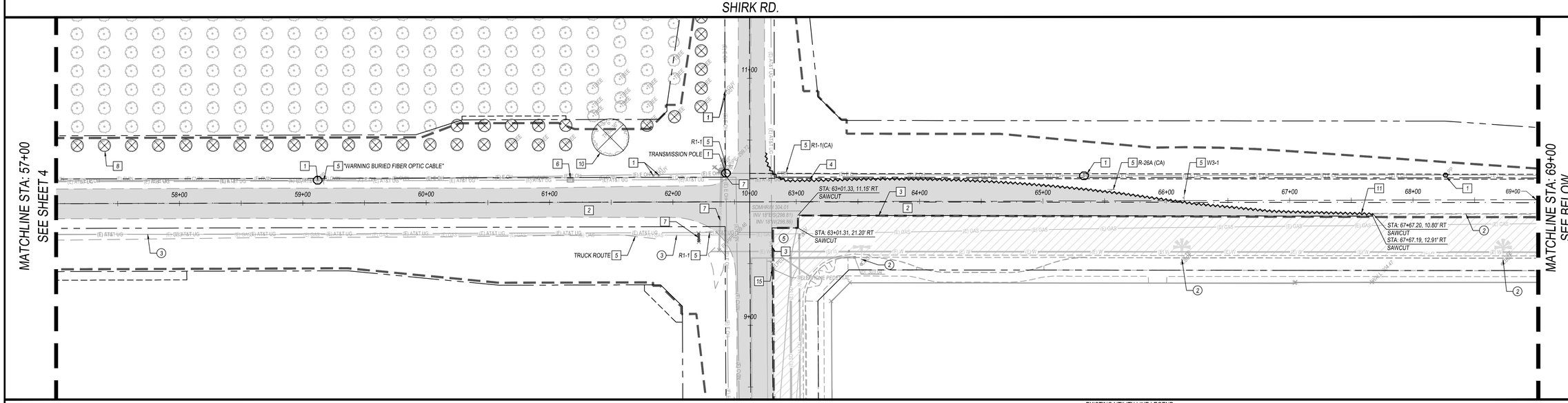

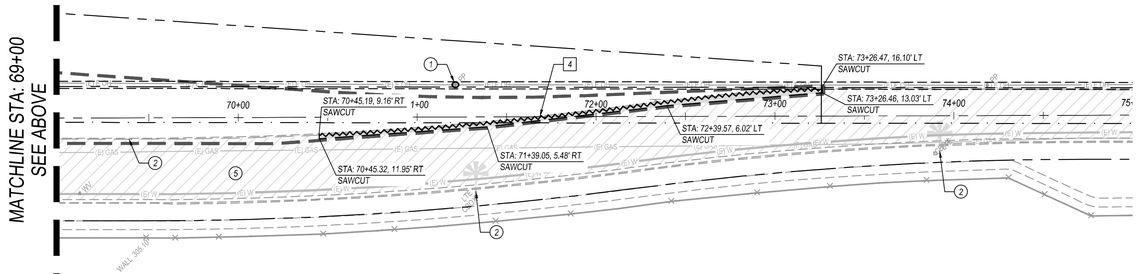

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EXISTING UTILITY LINE LEGEND

- (E) AT&T UG — ATT UNDERGROUND
- (E) COMCAST UG — COM UNDERGROUND
- (E) W — CW
- (E) E OH — SCE OVERHEAD
- (E) E&C OH — SCE AND COM OVERHEAD
- (E) E,T&C OH — SCE, ATT AND COM OVERHEAD
- (E) GAS — SCG

RIGGIN AVE. STA: 57+00 – 69+00

RIGGIN AVE. STA: 69+00 – END

NO.	DATE	DESCRIPTION

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS

CHK BY: KM
DRN BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
TOPOGRAPHIC & DEMOLITION PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 5 OF 59

Know what's **below.**
Call before you dig.

NORTH

40' 0' 40'

GENERAL DEMOLITION NOTES:

1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
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9. PROTECT IN PLACE EXISTING MEDIAN CURB

LEGEND (SHEETS 3-6 ONLY)

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- EXISTING ASPHALT PAVEMENT
- EXISTING PAVEMENT REMOVAL
- EXISTING CONCRETE REMOVAL
- EXISTING CURB / CURB & GUTTER REMOVAL
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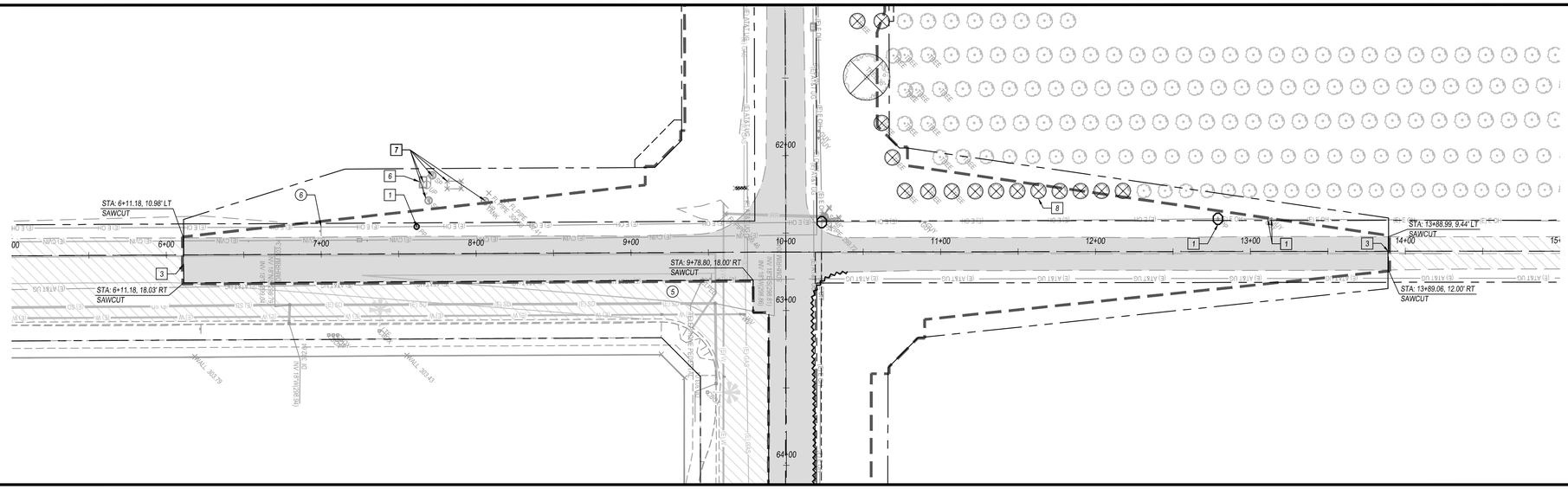
- SAWCUT LINE
- EXISTING VEGETATION REMOVAL
- EXISTING VEGETATION PROTECTION
- EXISTING POWER POLE
- EXISTING UTILITY POLE

RIGGIN AVE.



SHIRK RD. STA: 5+00 – END

UTILITY ABBREVIATION LEGEND

DTT - DEPTH TO TOP
ATT - AT&T INC.
COM - COMCAST
CW - CALWATER
SCE - SOUTHERN CALIFORNIA EDISON
SCG - SOUTHERN CALIFORNIA GAS
CNTL - CENTURY LINK

EXISTING UTILITY LINE LEGEND

- (E) AT&T UG — ATT UNDERGROUND
- (E) COMCAST UG — COM UNDERGROUND
- (E) W — CW
- (E) OH — SCE OVERHEAD
- (E) E&C OH — SCE AND COM OVERHEAD
- (E) E,T&C OH — SCE, ATT AND COM OVERHEAD
- (E) GAS — SCG

NO.	DATE	DESCRIPTION

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS

TOPOGRAPHIC & DEMOLITION PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 6 OF 59

Know what's below.
Call before you dig.

811

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

UTILITY CONFLICT KEYNOTES (SHEETS 7-10 ONLY)

U1	POLE AND GUY TO BE RELOCATED BY UTILITY COMPANY

POTHOLING KEYNOTES (SHEETS 7-10 ONLY)

P1	EXIST. AT&T UNDERGOUND & CVIN
P2	EXIST. AT&T UNDERGROUND & CVIN
P3	EXIST. AT&T UNDERGROUND & CVIN
P4	EXIST. AT&T UNDERGROUND & CVIN
P5	EXIST. AT&T UNDERGROUND & CVIN
P6	EXIST. AT&T UNDERGROUND & CVIN
P7	EXIST. GAS
P8	EXIST. GAS
P9	EXIST. AT&T UNDERGROUND & CVIN
P10	EXIST. AT&T UNDERGROUND & GAS
P11	EXIST. AT&T UNDERGOUND & CVIN
P12	EXIST. AT&T UNDERGROUND & GAS
P13	EXIST. AT&T UNDERGROUND & CVIN
P14	EXIST. AT&T UNDERGROUND & GAS
P15	EXIST. AT&T UNDERGOUND & CVIN
P16	EXIST. AT&T UNDERGROUND & GAS
P17	EXIST. AT&T UNDERGROUND & CVIN
P18	EXIST. AT&T UNDERGROUND & GAS
P19	SIGNAL POLE FOOTING
P20	EXIST. AT&T UNDERGROUND
P21	EXIST. AT&T UNDERGROUND
P22	SIGNAL POLE FOOTING
P23	SIGNAL POLE FOOTING
P24	SIGNAL POLE FOOTING

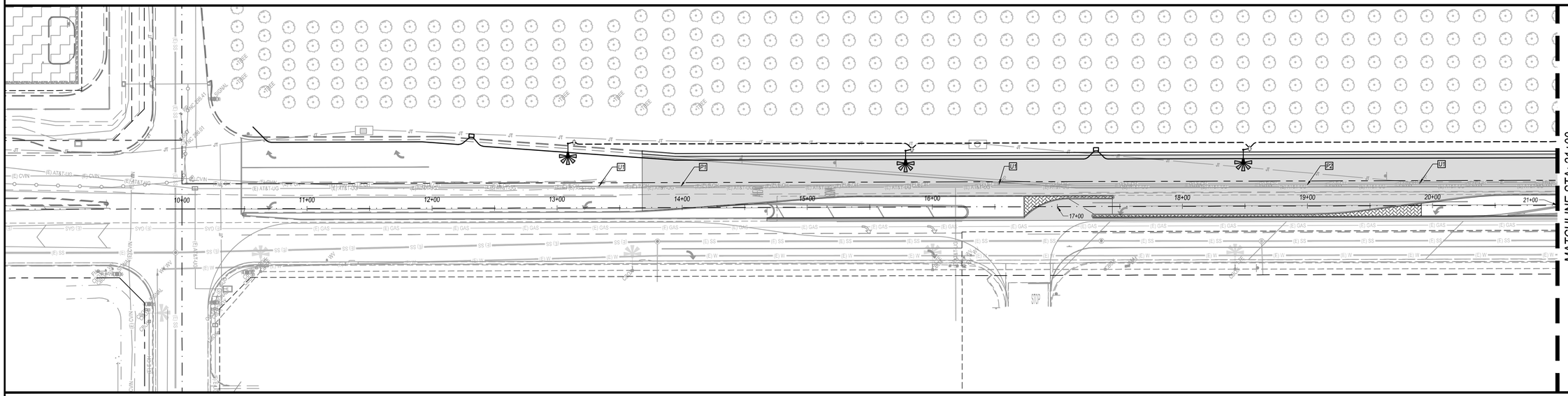
LEGEND

- PROPOSED ASPHALT CONCRETE
- PROPOSED CONCRETE
- DETECTABLE WARNING SURFACE
- MEDIAN STAMPED CONCRETE
- PROPOSED STREET LIGHTING SINGLE HEAD
- PROPOSED STORM OR SEWER MANHOLE TYP.
- PROPOSED STREET LIGHT PULL BOX

GENERAL UTILITY NOTES:

1. THE UTILITY INFORMATION SHOWN ON THESE PLANS IS BASED ON UTILITY PLATS RECEIVED FROM THE UTILITY COMPANIES, ABOVE GROUND IMPROVEMENTS IDENTIFIED DURING THE TOPOGRAPHIC SURVEY STAGE, USA MARKINGS PROVIDED DURING PRELIMINARY POTHOLING, AND SOME PRELIMINARY POTHOLING INFORMATION. IT SHALL BE THE RESPONSIBILITY OF EACH UTILITY COMPANY TO REVIEW THIS DRAWING AND VERIFY THAT THE LOCATIONS OF THEIR UTILITIES ARE ACCURATELY SHOWN AND CALLED OUT. NOTIFY THE CITY'S CONSULTANT WITH ANY CORRECTIONS AS SOON AS POSSIBLE.
2. THIS PLAN CALLS OUT SOME OF THE MAJOR UTILITY CONFLICT LOCATIONS THAT NEED TO BE RESOLVED. THERE WILL MOST LIKELY BE OTHER CONFLICT POINTS THAT THE UTILITY COMPANY DISCOVERS THAT NEED TO BE RESOLVED. UTILITY COMPANY SHALL CLEARLY IDENTIFY ALL CONFLICT POINTS AND NEW IMPROVEMENTS ON THEIR RELOCATION PLANS.
3. UTILITY TO ALSO INCLUDE LATERAL RELOCATIONS AND MORE MINOR INFRASTRUCTURE RELOCATIONS ON THEIR PLANS.
4. REFER TO COVER AND DEMO SHEETS FOR BENCHMARKS, GENERAL NOTES, & INFORMATION.
5. TOPO SURVEY FADED IN THE BACKGROUND OF THE PLAN.
6. ALL UTILITIES REQUIRED TO ADJUST INFRASTRUCTURE TO GRADE.
7. ANY ELECTRICAL CONDUIT WITHIN THE MEDIAN AREA TO BE PLACED ALONG THE NORTH SIDE OF THE MEDIAN. ELECTRICAL CONDUIT SHALL NOT BE PLACED ALONG THE CENTER OF THE MEDIAN.

KELSEY ST.



RIGGIN AVE. STA: 10+00 – 21+00

UTILITY ABBREVIATION LEGEND

DTT - DEPTH TO TOP
ATT - AT&T INC.
COM - COMCAST
CW - CALWATER
SCE - SOUTHERN CALIFORNIA EDISON
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EXISTING UTILITY LINE LEGEND

(E) AT&T UG	ATT UNDERGROUND	(E) E&C OH	SCE AND COM OVERHEAD
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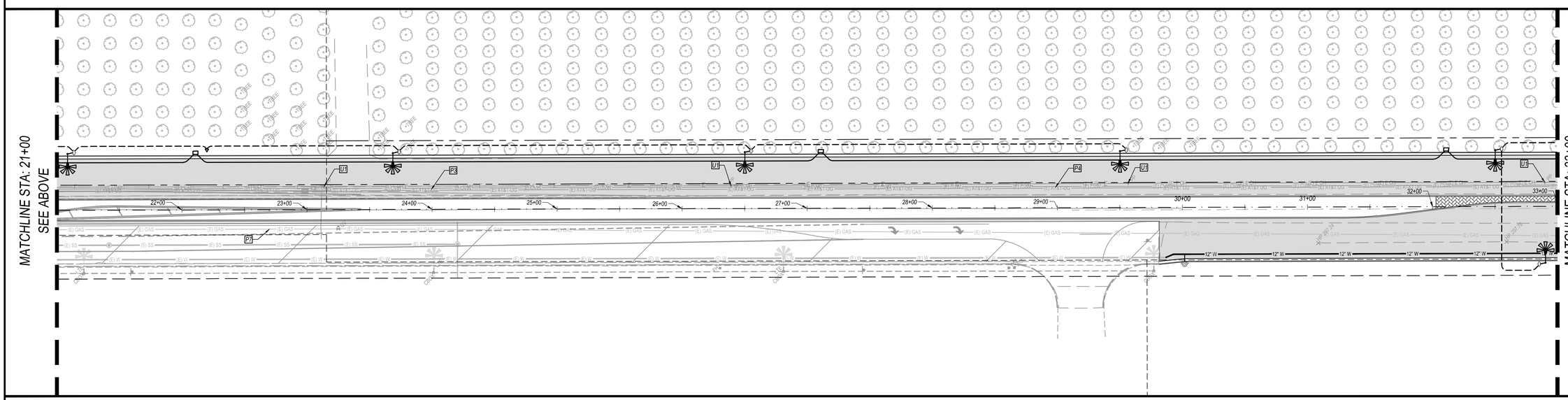

RIGGIN AVE. STA: 21+00 – 33+00

NO.	DATE	DESCRIPTION

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS

CHK BY: KM
DRN BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
UTILITY & POTHOLING PLAN

PROJ. NO. 20205	
DATE:2/1/22	
DESIGN BY: KM	DRAWN BY:MH
SCALE: AS SHOWN	
SHEET 7 OF 59	

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

UTILITY CONFLICT KEYNOTES (SHEETS 7-10 ONLY)

U1	POLE AND GUY TO BE RELOCATED BY UTILITY COMPANY

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LEGEND

- PROPOSED ASPHALT CONCRETE
- PROPOSED CONCRETE
- DETECTABLE WARNING SURFACE
- MEDIAN STAMPED CONCRETE
- PROPOSED STREET LIGHTING SINGLE HEAD
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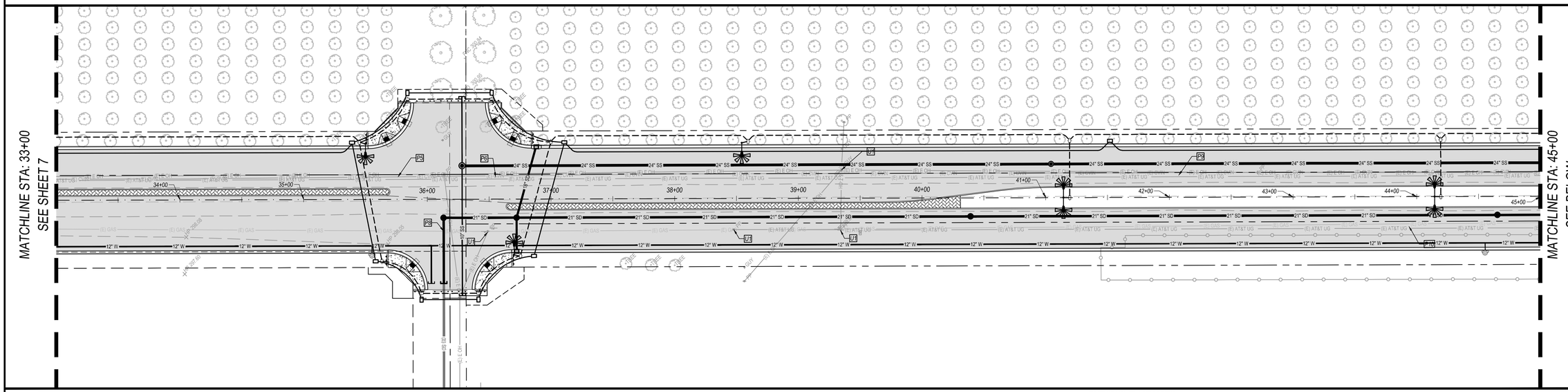
CLANCY ST.



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RIGGIN AVE. STA: 33+00 – 45+00

EXISTING UTILITY LINE LEGEND

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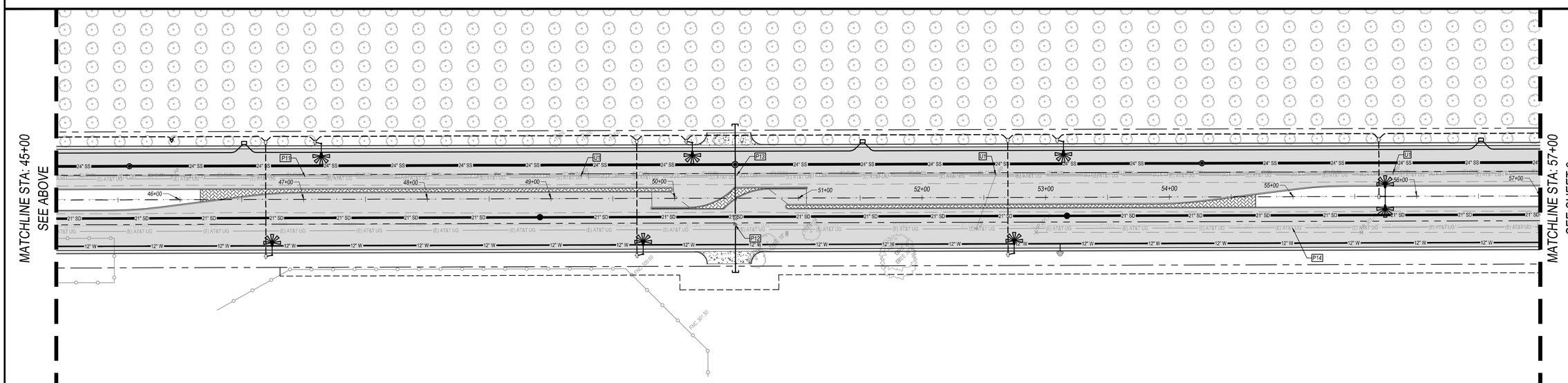
(E) W	CW	(E) GAS	SCG
(E) E OH	SCE OVERHEAD		



RIGGIN AVE. STA: 45+00 – 57+00

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — KEVIN MERRITT FOSTER — No. 81918 — CIVIL — STATE OF CALIFORNIA

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
UTILITY & POTHOLING PLAN

PROJ. NO. 20205	
DATE:2/1/22	
DESIGN BY: KM	DRAWN BY:MH
SCALE: AS SHOWN	
SHEET 8 OF 59	

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

UTILITY CONFLICT KEYNOTES (SHEETS 7-10 ONLY)

U1	POLE AND GUY TO BE RELOCATED BY UTILITY COMPANY

POTHOLING KEYNOTES (SHEETS 7-10 ONLY)

P1	EXIST. AT&T UNDERGOUND & CVIN
P2	EXIST. AT&T UNDERGROUND & CVIN
P3	EXIST. AT&T UNDERGROUND & CVIN
P4	EXIST. AT&T UNDERGROUND & CVIN
P5	EXIST. AT&T UNDERGROUND & CVIN
P6	EXIST. AT&T UNDERGROUND & CVIN
P7	EXIST. GAS
P8	EXIST. GAS
P9	EXIST. AT&T UNDERGROUND & CVIN
P10	EXIST. AT&T UNDERGROUND & GAS
P11	EXIST. AT&T UNDERGOUND & CVIN
P12	EXIST. AT&T UNDERGROUND & GAS
P13	EXIST. AT&T UNDERGROUND & CVIN
P14	EXIST. AT&T UNDERGROUND & GAS
P15	EXIST. AT&T UNDERGOUND & CVIN
P16	EXIST. AT&T UNDERGROUND & GAS
P17	EXIST. AT&T UNDERGROUND & CVIN
P18	EXIST. AT&T UNDERGROUND & GAS
P19	SIGNAL POLE FOOTING
P20	EXIST. AT&T UNDERGROUND
P21	EXIST. AT&T UNDERGROUND
P22	SIGNAL POLE FOOTING
P23	SIGNAL POLE FOOTING
P24	SIGNAL POLE FOOTING

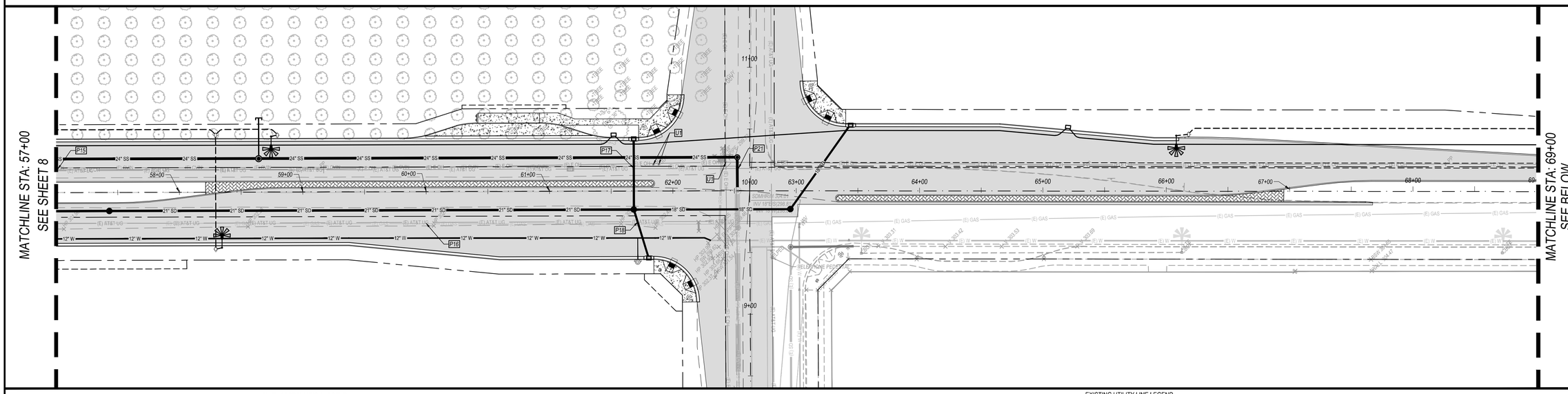
LEGEND

- PROPOSED ASPHALT CONCRETE
- PROPOSED CONCRETE
- DETECTABLE WARNING SURFACE
- MEDIAN STAMPED CONCRETE
- PROPOSED STREET LIGHTING SINGLE HEAD
- PROPOSED STORM OR SEWER MANHOLE TYP.
- PROPOSED STREET LIGHT PULL BOX

GENERAL UTILITY NOTES:

1. THE UTILITY INFORMATION SHOWN ON THESE PLANS IS BASED ON UTILITY PLATS RECEIVED FROM THE UTILITY COMPANIES, ABOVE GROUND IMPROVEMENTS IDENTIFIED DURING THE TOPOGRAPHIC SURVEY STAGE, USA MARKINGS PROVIDED DURING PRELIMINARY POTHOLING, AND SOME PRELIMINARY POTHOLING INFORMATION. IT SHALL BE THE RESPONSIBILITY OF EACH UTILITY COMPANY TO REVIEW THIS DRAWING AND VERIFY THAT THE LOCATIONS OF THEIR UTILITIES ARE ACCURATELY SHOWN AND CALLED OUT. NOTIFY THE CITY'S CONSULTANT WITH ANY CORRECTIONS AS SOON AS POSSIBLE.
2. THIS PLAN CALLS OUT SOME OF THE MAJOR UTILITY CONFLICT LOCATIONS THAT NEED TO BE RESOLVED. THERE WILL MOST LIKELY BE OTHER CONFLICT POINTS THAT THE UTILITY COMPANY DISCOVERS THAT NEED TO BE RESOLVED. UTILITY COMPANY SHALL CLEARLY IDENTIFY ALL CONFLICT POINTS AND NEW IMPROVEMENTS ON THEIR RELOCATION PLANS.
3. UTILITY TO ALSO INCLUDE LATERAL RELOCATIONS AND MORE MINOR INFRASTRUCTURE RELOCATIONS ON THEIR PLANS.
4. REFER TO COVER AND DEMO SHEETS FOR BENCHMARKS, GENERAL NOTES, & INFORMATION.
5. TOPO SURVEY FADED IN THE BACKGROUND OF THE PLAN.
6. ALL UTILITIES REQUIRED TO ADJUST INFRASTRUCTURE TO GRADE.
7. ANY ELECTRICAL CONDUIT WITHIN THE MEDIAN AREA TO BE PLACED ALONG THE NORTH SIDE OF THE MEDIAN. ELECTRICAL CONDUIT SHALL NOT BE PLACED ALONG THE CENTER OF THE MEDIAN.

SHIRK RD.



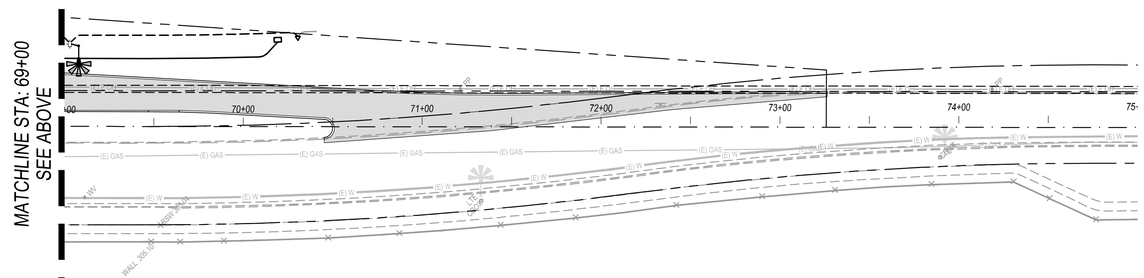
RIGGIN AVE. STA: 57+00 – 69+00

UTILITY ABBREVIATION LEGEND

DTT - DEPTH TO TOP
ATT - AT&T INC.
COM - COMCAST
CW - CALWATER
SCE - SOUTHERN CALIFORNIA EDISON
SCG - SOUTHERN CALIFORNIA GAS
CNTL - CENTURY LINK

EXISTING UTILITY LINE LEGEND

(E) AT&T UG	ATT UNDERGROUND	(E) E&C OH	SCE AND COM OVERHEAD
(E) COMCAST UG	COM UNDERGROUND	(E) E,T&C OH	SCE, ATT AND COM OVERHEAD
(E) W	CW	(E) GAS	SCG
(E) E OH	SCE OVERHEAD		



RIGGIN AVE. STA: 69+00 – END

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — MICHAEL HOLLAND — No. 81512 — STATE OF CALIFORNIA — CIVIL — 6/30/2023

324 S. SANTA FE, STE A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS — CHK BY: KM — DRN BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS

UTILITY & POTHOLING PLAN

PROJ. NO. 20205	
DATE:2/1/22	
DESIGN BY: KM	DRAWN BY:MH
SCALE: AS SHOWN	
SHEET 9 OF 59	

Know what's below. Call before you dig. 811

NORTH

40' 0' 40'

WARNING
POWER LINES OVERHEAD

UTILITY CONFLICT KEYNOTES (SHEETS 7-10 ONLY)

U1 POLE AND GUY TO BE RELOCATED BY UTILITY COMPANY

POTHOLING KEYNOTES (SHEETS 7-10 ONLY)

- P1 EXIST. AT&T UNDERGOUND & CVIN
- P2 EXIST. AT&T UNDERGROUND & CVIN
- P3 EXIST. AT&T UNDERGROUND & CVIN
- P4 EXIST. AT&T UNDERGROUND & CVIN
- P5 EXIST. AT&T UNDERGROUND & CVIN
- P6 EXIST. AT&T UNDERGROUND & CVIN
- P7 EXIST. GAS
- P8 EXIST. GAS
- P9 EXIST. AT&T UNDERGROUND & CVIN
- P10 EXIST. AT&T UNDERGROUND & GAS
- P11 EXIST. AT&T UNDERGOUND & CVIN
- P12 EXIST. AT&T UNDERGROUND & GAS
- P13 EXIST. AT&T UNDERGROUND & CVIN
- P14 EXIST. AT&T UNDERGROUND & GAS
- P15 EXIST. AT&T UNDERGOUND & CVIN
- P16 EXIST. AT&T UNDERGROUND & GAS
- P17 EXIST. AT&T UNDERGROUND & CVIN
- P18 EXIST. AT&T UNDERGROUND & GAS
- P19 SIGNAL POLE FOOTING
- P20 EXIST. AT&T UNDERGROUND
- P21 EXIST. AT&T UNDERGROUND
- P22 SIGNAL POLE FOOTING
- P23 SIGNAL POLE FOOTING
- P24 SIGNAL POLE FOOTING

LEGEND

- PROPOSED ASPHALT CONCRETE
- PROPOSED CONCRETE
- DETECTABLE WARNING SURFACE
- MEDIAN STAMPED CONCRETE
- PROPOSED STREET LIGHTING SINGLE HEAD
- PROPOSED STORM OR SEWER MANHOLE TYP.
- PROPOSED STREET LIGHT PULL BOX

GENERAL UTILITY NOTES:

1. THE UTILITY INFORMATION SHOWN ON THESE PLANS IS BASED ON UTILITY PLATS RECEIVED FROM THE UTILITY COMPANIES, ABOVE GROUND IMPROVEMENTS IDENTIFIED DURING THE TOPOGRAPHIC SURVEY STAGE, USA MARKINGS PROVIDED DURING PRELIMINARY POTHOLING, AND SOME PRELIMINARY POTHOLING INFORMATION. IT SHALL BE THE RESPONSIBILITY OF EACH UTILITY COMPANY TO REVIEW THIS DRAWING AND VERIFY THAT THE LOCATIONS OF THEIR UTILITIES ARE ACCURATELY SHOWN AND CALLED OUT. NOTIFY THE CITY'S CONSULTANT WITH ANY CORRECTIONS AS SOON AS POSSIBLE.
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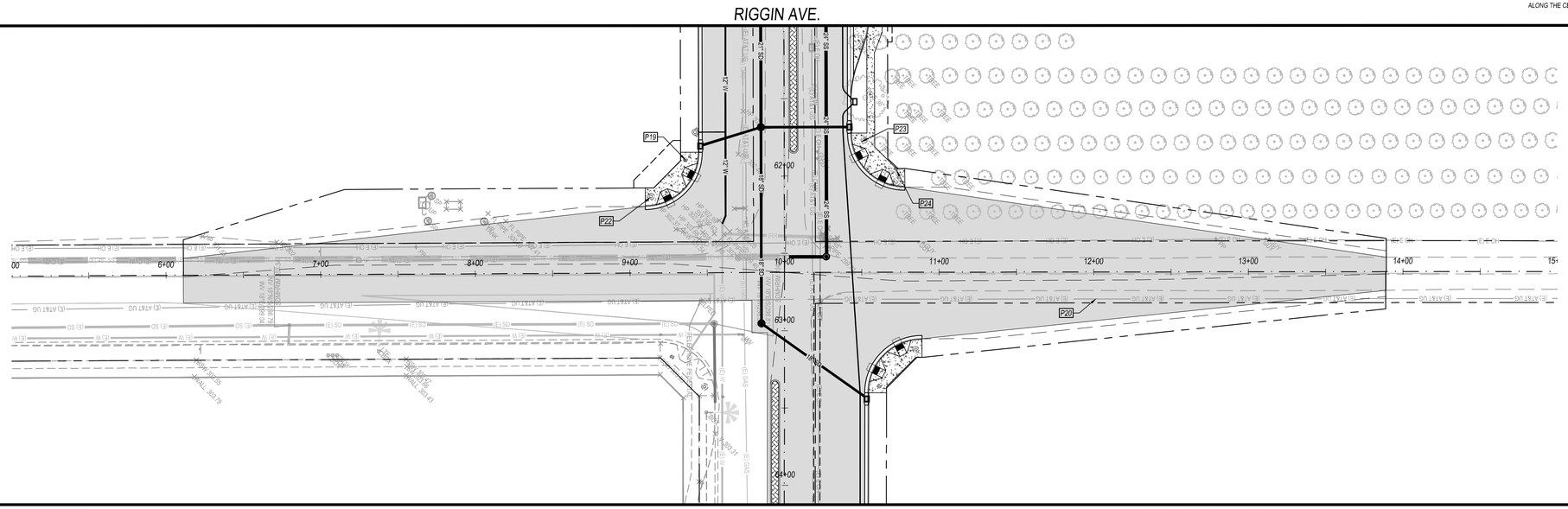
4. REFER TO COVER AND DEMO SHEETS FOR BENCHMARKS, GENERAL NOTES, & INFORMATION.
5. TOPO SURVEY FADED IN THE BACKGROUND OF THE PLAN.
6. ALL UTILITIES REQUIRED TO ADJUST INFRASTRUCTURE TO GRADE.
7. ANY ELECTRICAL CONDUIT WITHIN THE MEDIAN AREA TO BE PLACED ALONG THE NORTH SIDE OF THE MEDIAN. ELECTRICAL CONDUIT SHALL NOT BE PLACED ALONG THE CENTER OF THE MEDIAN.



SHIRK RD. STA: 5+00 – END

UTILITY ABBREVIATION LEGEND

DTT - DEPTH TO TOP
ATT - AT&T INC.
COM - COMCAST
CW - CALWATER
SCE - SOUTHERN CALIFORNIA EDISON
SCG - SOUTHERN CALIFORNIA GAS
CNTL - CENTURY LINK

EXISTING UTILITY LINE LEGEND

- (E) AT&T UG — ATT UNDERGROUND
- (E) COMCAST UG — COM UNDERGROUND
- (E) W — CW
- (E) E OH — SCE OVERHEAD
- (E) E&C OH — SCE AND COM OVERHEAD
- (E) E,T&C OH — SCE, ATT AND COM OVERHEAD
- (E) GAS — SCG

NO. | DATE | DESCRIPTION

PROFESSIONAL ENGINEER — MICHAEL HOLLAND — No. 91915 — STATE OF CALIFORNIA — CIVIL — 12-31-2023

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS

UTILITY & POTHOLING PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 10 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH
40' 0' 40'

4' 0'
VERTICAL SCALE

GENERAL CONSTRUCTION NOTES:

1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. ALL NEW CONCRETE IMPROVEMENTS SHALL BE DOWELED INTO EXIST. CONCRETE IMPROVEMENTS PER CITY STD. C-34.

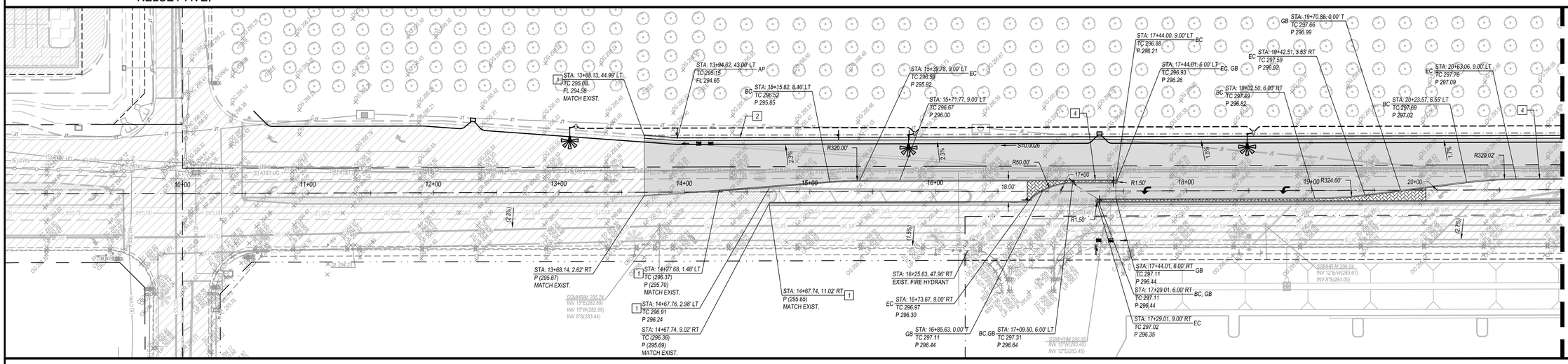
CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

1. INSTALL CONCRETE COLD JOINT PER CITY STD. C-34
2. INSTALL CONCRETE CURB AND GUTTER PER CITY STD. C-4
3. INSTALL DRIVE APPROACH PER CITY STD. C-24
4. INSTALL MEDIAN CURB PER CITY STD. B1-6
5. INSTALL DRAINAGE INLET PER CITY STD. D-12
6. INSTALL STORM DRAIN MANHOLE PER CITY STD. D-1
7. INSTALL SANITARY SEWER MANHOLE PER CITY STD. S-1
8. TIE-INTO EXIST. MANHOLE
9. INSTALL FIRE HYDRANT PER CITY STD. W-12
10. PROPOSED WATER SYSTEM FOR REFERENCE ONLY. SEE SEPARATE CALIFORNIA WATER SERVICE PLANS

LEGEND

- DETAIL REFERENCE
- EXIST. ASPHALT CONCRETE
- EXIST. CONCRETE
- PROPOSED CONCRETE
- PROPOSED ASPHALT CONCRETE (SEE SHEETS 18-19)
- STAMPED MEDIAN (CITY STD. C-35)
- GRADE BREAK/CROWN
- SWALE

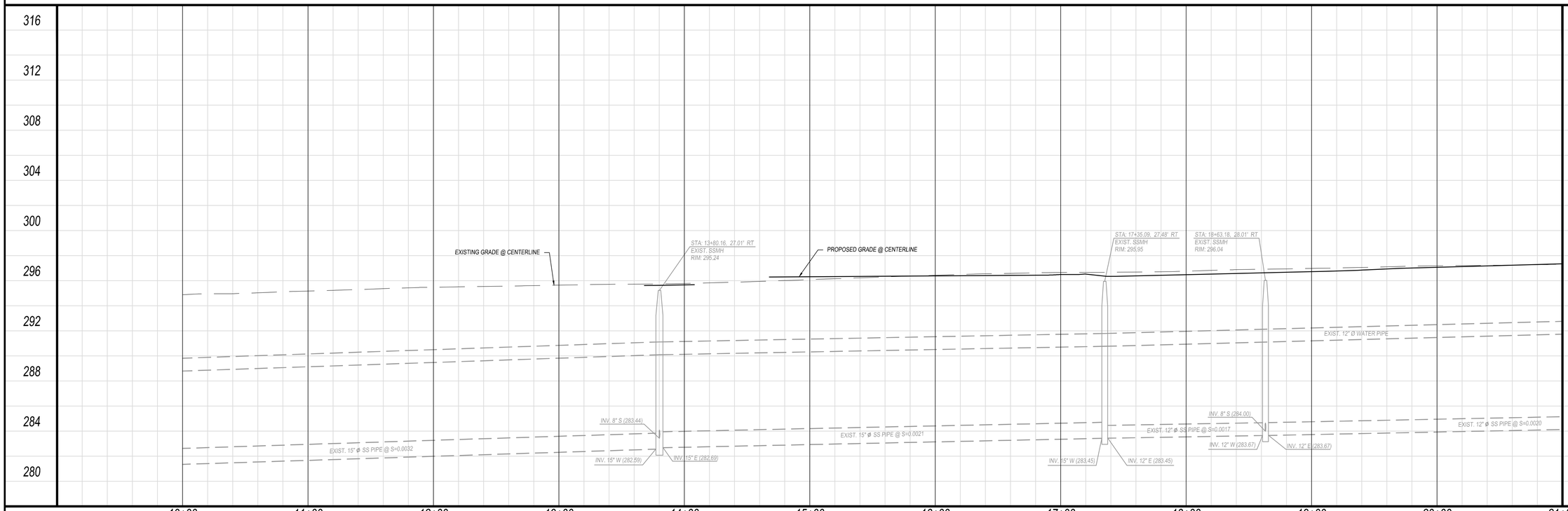
KELSEY AVE.



MATCHLINE STA: 21+00

SEE SHEET 12

RIGGIN AVE. STA: 10+00 – 21+00



NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

DRW BY: MH | CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS

IMPROVEMENT PLAN & PROFILE

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 11 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

4' 0'
VERTICAL SCALE

GENERAL CONSTRUCTION NOTES:

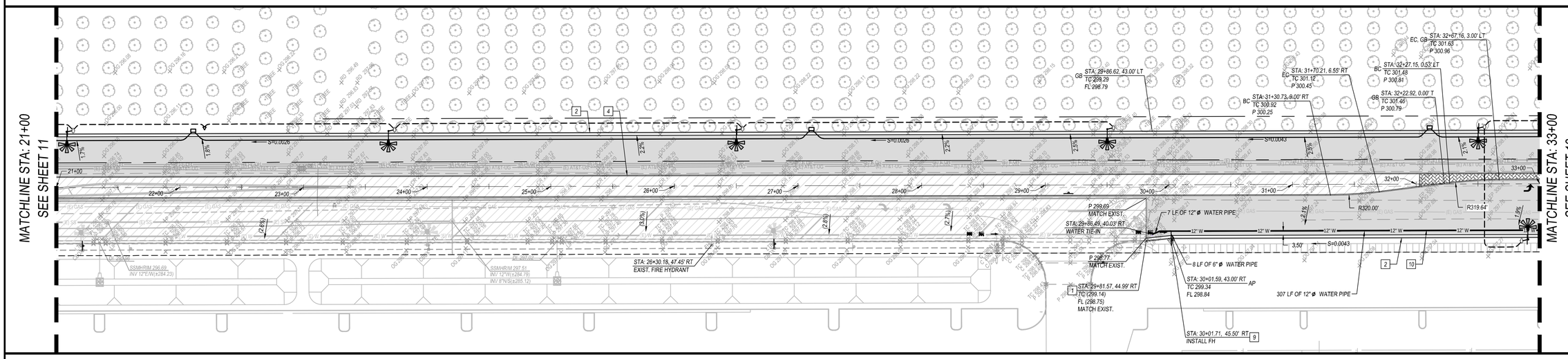
1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. ALL NEW CONCRETE IMPROVEMENTS SHALL BE DOWELED INTO EXIST. CONCRETE IMPROVEMENTS PER CITY STD. C-34.

CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

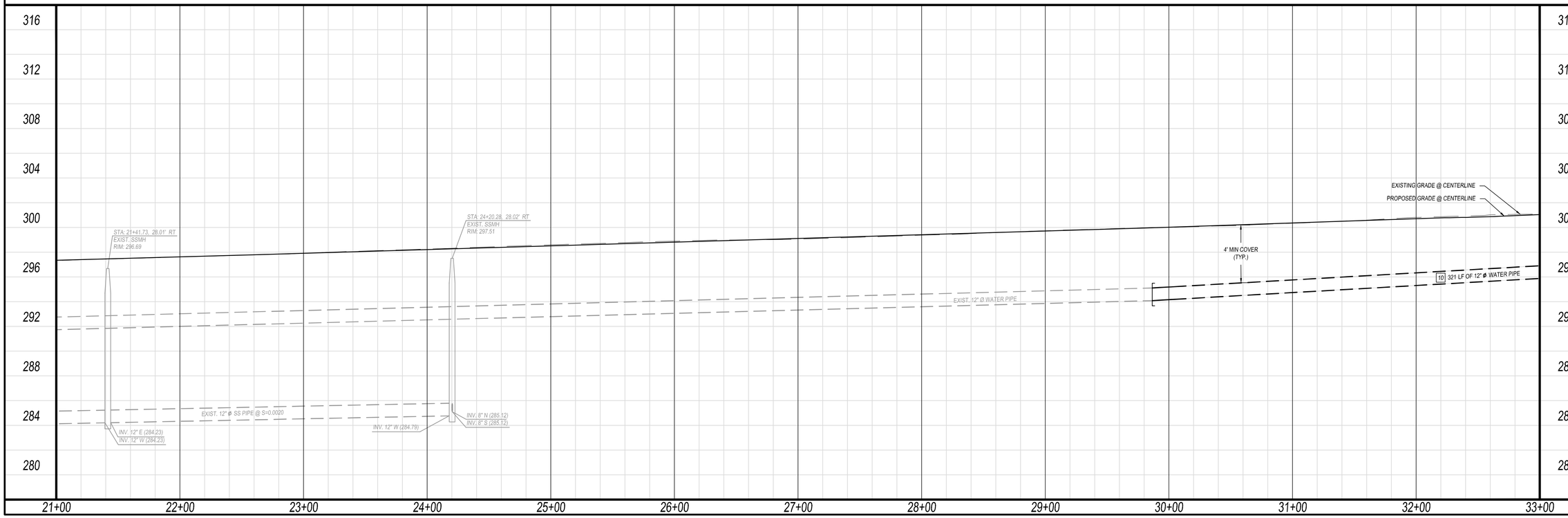
1. INSTALL CONCRETE COLD JOINT PER CITY STD. C-34
2. INSTALL CONCRETE CURB AND GUTTER PER CITY STD. C-4
3. INSTALL DRIVE APPROACH PER CITY STD. C-24
4. INSTALL MEDIAN CURB PER CITY STD. B1-6
5. INSTALL DRAINAGE INLET PER CITY STD. D-12
6. INSTALL STORM DRAIN MANHOLE PER CITY STD. D-1
7. INSTALL SANITARY SEWER MANHOLE PER CITY STD. S-1
8. TIE-INTO EXIST. MANHOLE
9. INSTALL FIRE HYDRANT PER CITY STD. W-12
10. PROPOSED WATER SYSTEM FOR REFERENCE ONLY. SEE SEPARATE CALIFORNIA WATER SERVICE PLANS

LEGEND

- DETAIL REFERENCE
- EXIST. ASPHALT CONCRETE
- EXIST. CONCRETE
- PROPOSED CONCRETE
- PROPOSED ASPHALT CONCRETE (SEE SHEETS 18-19)
- STAMPED MEDIAN (CITY STD. C-35)
- GRADE BREAK/CROWN
- SWALE



RIGGIN AVE. STA: 21+00 – 33+00



NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

DRW BY: MH | CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
IMROVEMENT PLAN & PROFILE

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 12 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

4' 0'
VERTICAL SCALE

GENERAL CONSTRUCTION NOTES:

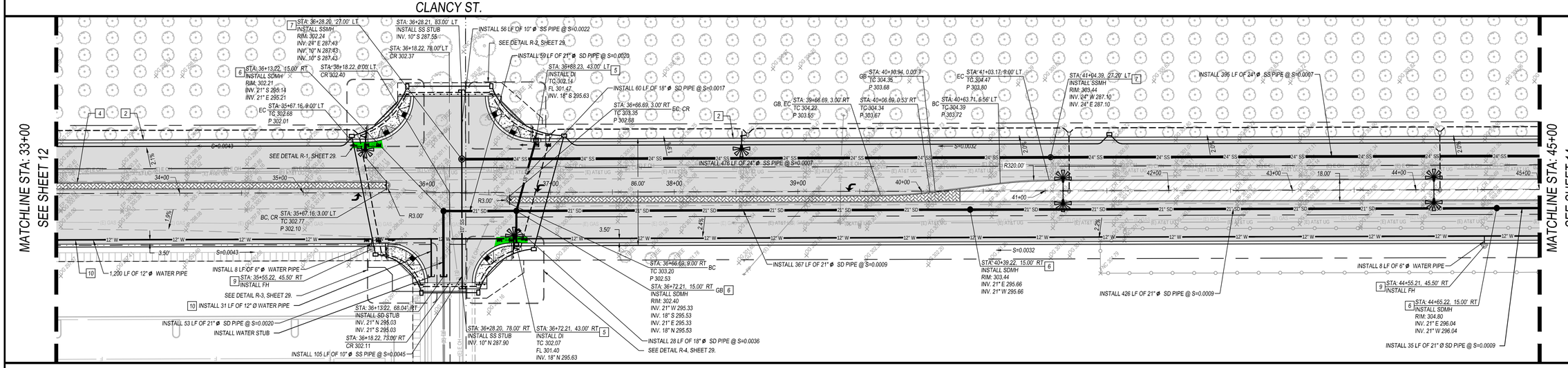
1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. ALL NEW CONCRETE IMPROVEMENTS SHALL BE DOWELED INTO EXIST. CONCRETE IMPROVEMENTS PER CITY STD. C-34.

CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

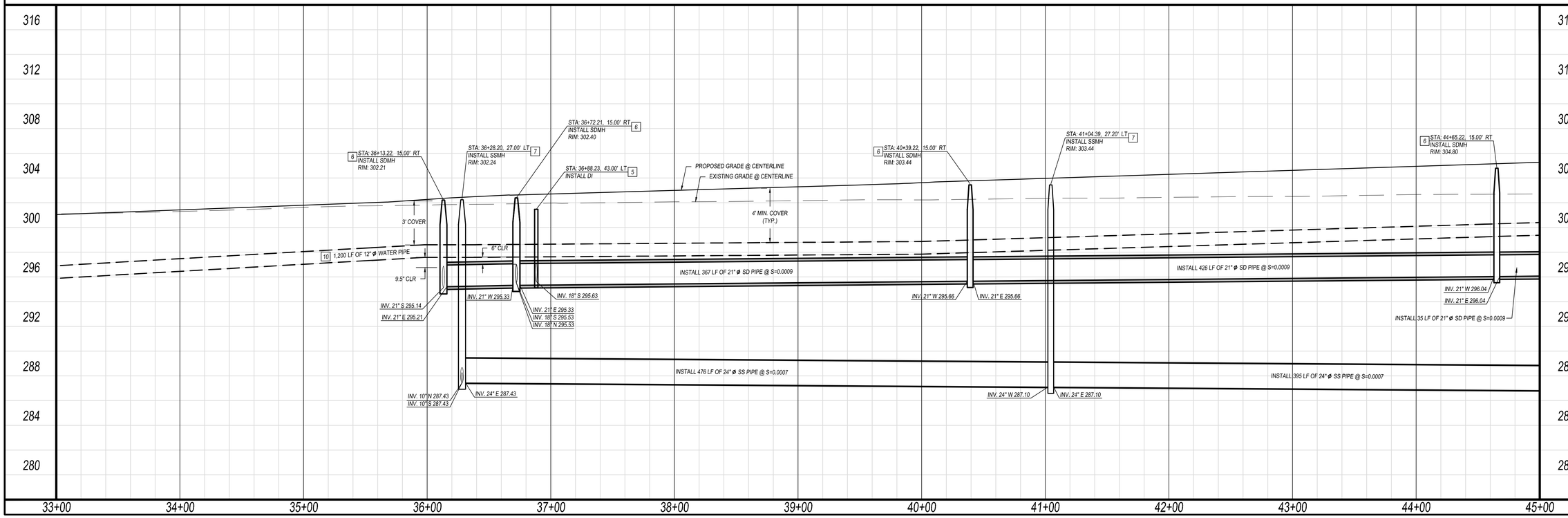
1. INSTALL CONCRETE COLD JOINT PER CITY STD. C-34
2. INSTALL CONCRETE CURB AND GUTTER PER CITY STD. C-4
3. INSTALL DRIVE APPROACH PER CITY STD. C-24
4. INSTALL MEDIAN CURB PER CITY STD. B1-6
5. INSTALL DRAINAGE INLET PER CITY STD. D-12
6. INSTALL STORM DRAIN MANHOLE PER CITY STD. D-1
7. INSTALL SANITARY SEWER MANHOLE PER CITY STD. S-1
8. TIE-INTO EXIST. MANHOLE
9. INSTALL FIRE HYDRANT PER CITY STD. W-12
10. PROPOSED WATER SYSTEM FOR REFERENCE ONLY. SEE SEPARATE CALIFORNIA WATER SERVICE PLANS

LEGEND

- DETAIL REFERENCE
- EXIST. ASPHALT CONCRETE
- EXIST. CONCRETE
- PROPOSED CONCRETE
- PROPOSED ASPHALT CONCRETE (SEE SHEETS 18-19)
- STAMPED MEDIAN (CITY STD. C-35)
- GRADE BREAK/CRown
- SWALE



RIGGIN AVE. STA: 33+00 – 45+00



NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215
DRW BY: MH
CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
IMPROVEMENT PLAN & PROFILE

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 13 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

4' 0'
VERTICAL SCALE

GENERAL CONSTRUCTION NOTES:

1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. ALL NEW CONCRETE IMPROVEMENTS SHALL BE DOWELED INTO EXIST. CONCRETE IMPROVEMENTS PER CITY STD. C-34.

CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

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7. INSTALL SANITARY SEWER MANHOLE PER CITY STD. S-1
8. TIE-INTO EXIST. MANHOLE
9. INSTALL FIRE HYDRANT PER CITY STD. W-12
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LEGEND

- DETAIL REFERENCE
- EXIST. ASPHALT CONCRETE
- EXIST. CONCRETE
- PROPOSED CONCRETE
- PROPOSED ASPHALT CONCRETE (SEE SHEETS 18-19)
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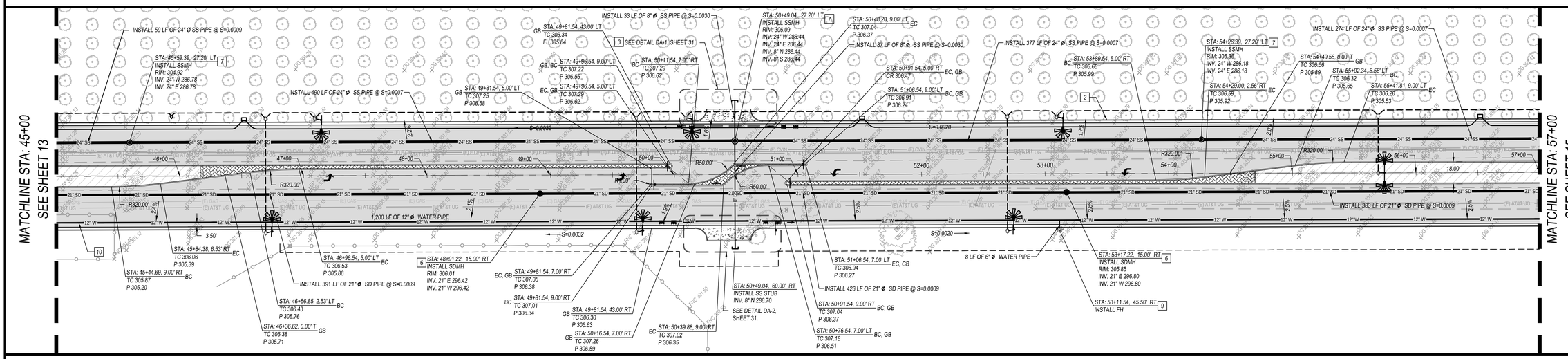
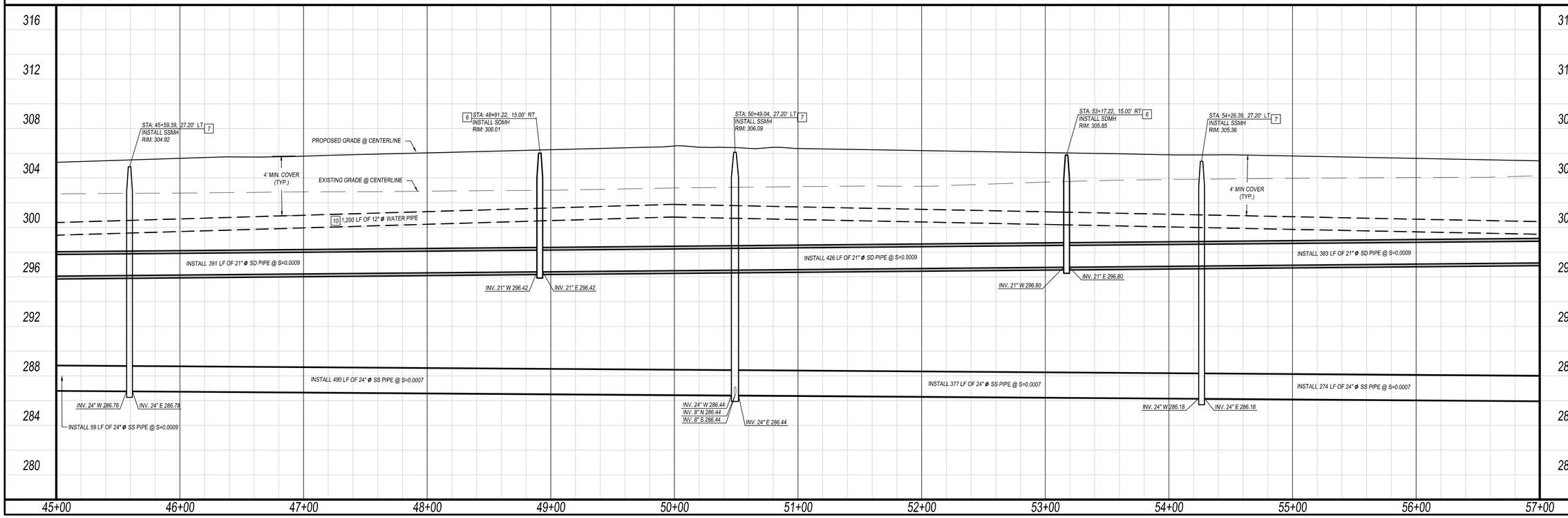


RIGGIN AVE. STA: 45+00 – 57+00



324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

NO. | DATE | DESCRIPTION

CHK BY: KM
DRW BY: MH

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
IMPROVEMENT PLAN & PROFILE

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 14 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

4' 0'
VERTICAL SCALE

GENERAL CONSTRUCTION NOTES:

1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
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CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

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3. INSTALL DRIVE APPROACH PER CITY STD. C-24
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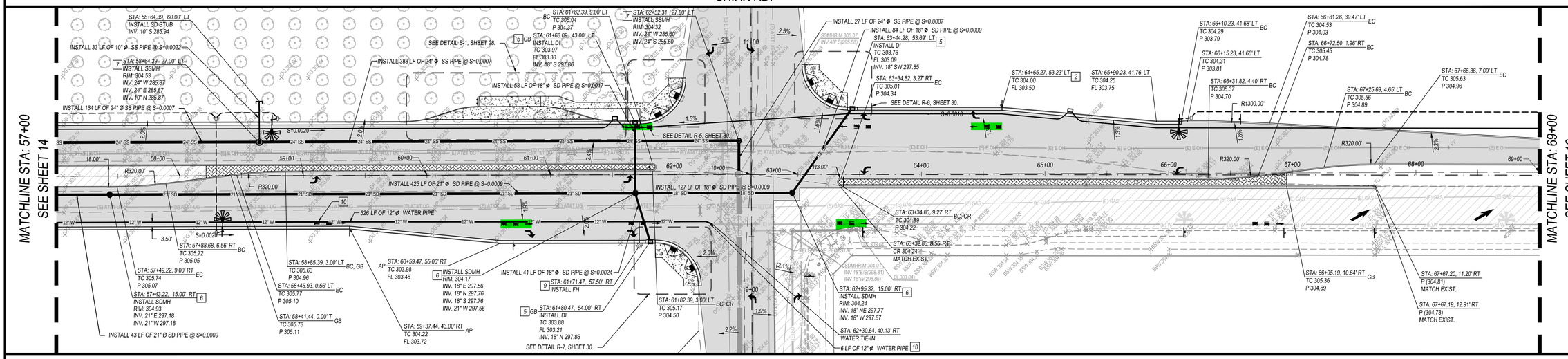
6. INSTALL STORM DRAIN MANHOLE PER CITY STD. D-1
7. INSTALL SANITARY SEWER MANHOLE PER CITY STD. S-1
8. TIE-INTO EXIST. MANHOLE
9. INSTALL FIRE HYDRANT PER CITY STD. W-12
10. PROPOSED WATER SYSTEM FOR REFERENCE ONLY. SEE SEPARATE CALIFORNIA WATER SERVICE PLANS

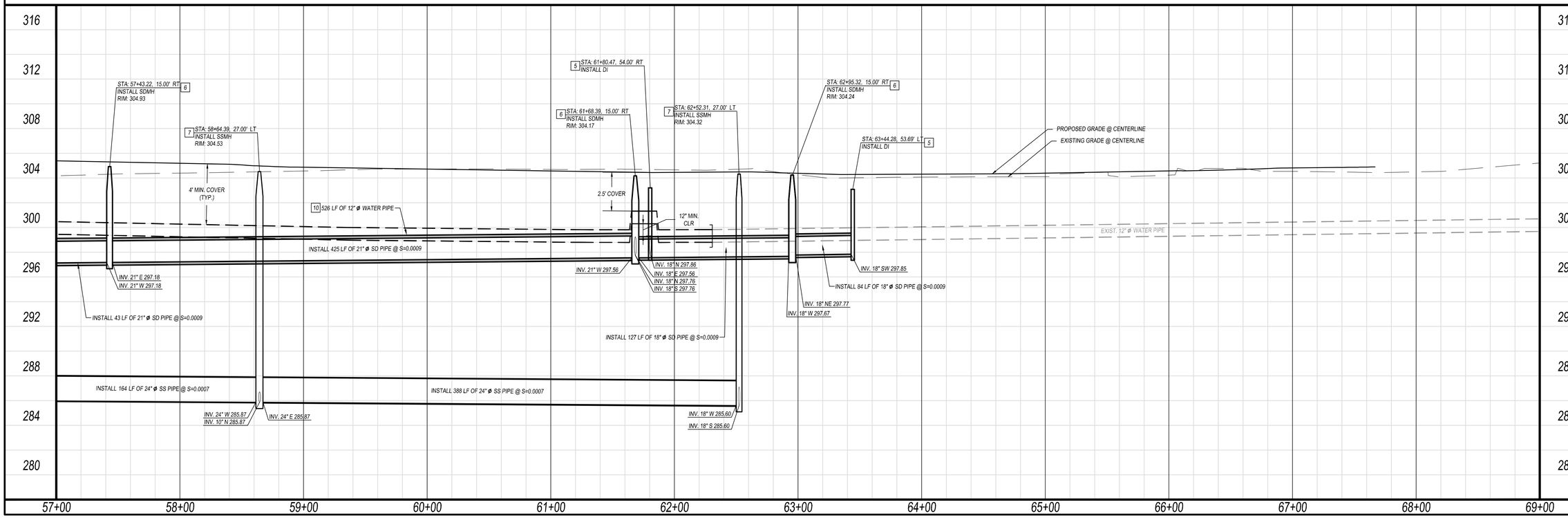
LEGEND

- DETAIL REFERENCE
- EXIST. ASPHALT CONCRETE
- EXIST. CONCRETE
- PROPOSED CONCRETE
- PROPOSED ASPHALT CONCRETE (SEE SHEETS 18-19)
- STAMPED MEDIAN (CITY STD. C-35)
- GRADE BREAK/CROWN
- SWALE

SHIRK RD.



RIGGIN AVE. STA: 57+00 – STA: 69+00



324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS

CHK BY: KM
DRW BY: MH

NO.	DATE	DESCRIPTION

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
IMPROVEMENT PLAN & PROFILE

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 15 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

4' 0'
VERTICAL SCALE

GENERAL CONSTRUCTION NOTES:

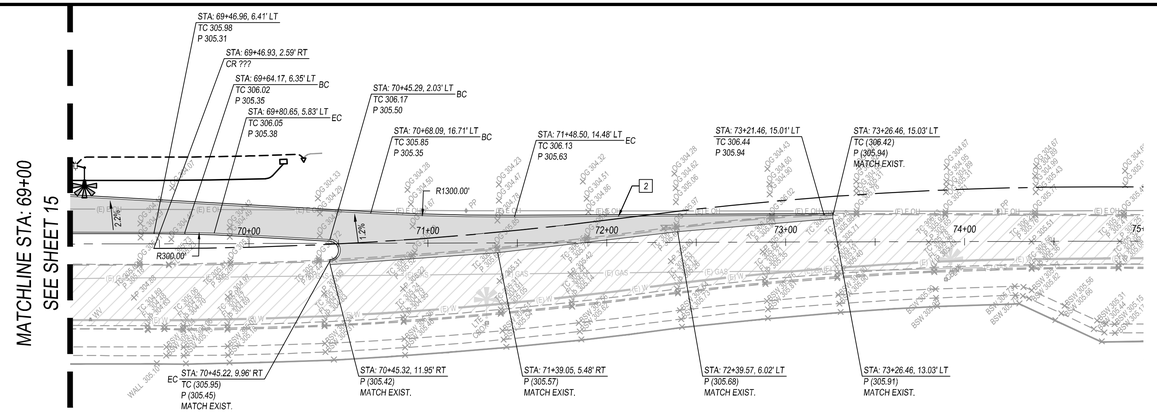
1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. ALL NEW CONCRETE IMPROVEMENTS SHALL BE DOWELED INTO EXIST. CONCRETE IMPROVEMENTS PER CITY STD. C-34.

CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

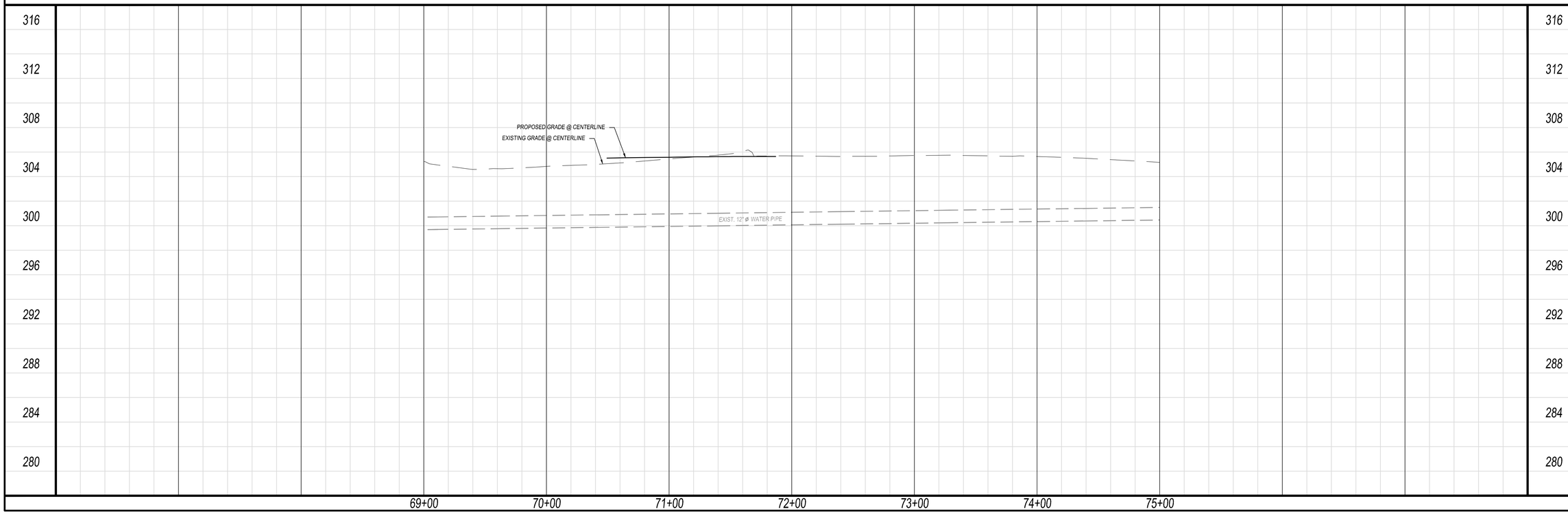
1. INSTALL CONCRETE COLD JOINT PER CITY STD. C-34
2. INSTALL CONCRETE CURB AND GUTTER PER CITY STD. C-4
3. INSTALL DRIVE APPROACH PER CITY STD. C-24
4. INSTALL MEDIAN CURB PER CITY STD. B1-6
5. INSTALL DRAINAGE INLET PER CITY STD. D-12
6. INSTALL STORM DRAIN MANHOLE PER CITY STD. D-1
7. INSTALL SANITARY SEWER MANHOLE PER CITY STD. S-1
8. TIE-INTO EXIST. MANHOLE
9. INSTALL FIRE HYDRANT PER CITY STD. W-12
10. PROPOSED WATER SYSTEM FOR REFERENCE ONLY. SEE SEPARATE CALIFORNIA WATER SERVICE PLANS

LEGEND

- DETAIL REFERENCE
- EXIST. ASPHALT CONCRETE
- EXIST. CONCRETE
- PROPOSED CONCRETE
- PROPOSED ASPHALT CONCRETE (SEE SHEETS 18-19)
- STAMPED MEDIAN (CITY STD. C-35)
- GRADE BREAK/CROWN
- SWALE



RIGGIN AVE. STA: 69+00 – END



NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

DRW BY: MH | CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
IMPROVEMENT PLAN & PROFILE

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 16 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH
40' 0' 40'
2' 0'
VERTICAL SCALE

GENERAL CONSTRUCTION NOTES:

1. ALL SAWCUTS TO BE A NEAT, CLEAN, ON GRADE EDGE.
2. ALL NEW CONCRETE IMPROVEMENTS SHALL BE DOWELED INTO EXIST. CONCRETE IMPROVEMENTS PER CITY STD. C-34.

CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

1. INSTALL CONCRETE COLD JOINT PER CITY STD. C-34
2. INSTALL CONCRETE CURB AND GUTTER PER CITY STD. C-4
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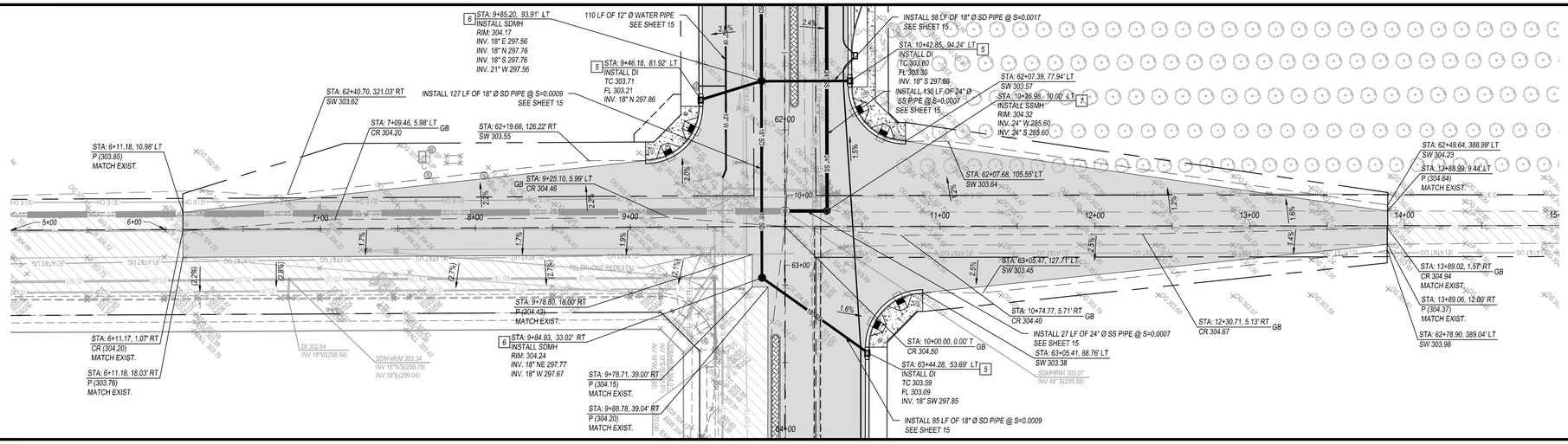
7. INSTALL SANITARY SEWER MANHOLE PER CITY STD. S-1
8. TIE-INTO EXIST. MANHOLE
9. INSTALL FIRE HYDRANT PER CITY STD. W-12
10. PROPOSED WATER SYSTEM FOR REFERENCE ONLY. SEE SEPARATE CALIFORNIA WATER SERVICE PLANS

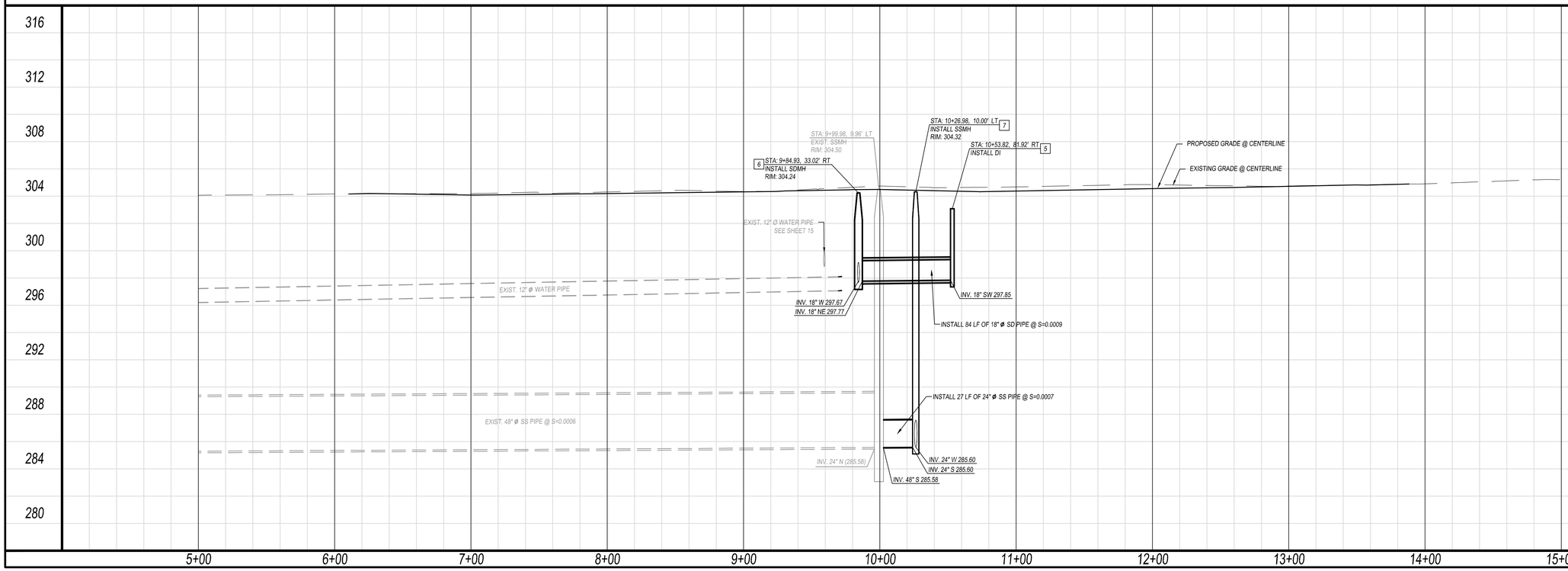
LEGEND

- DETAIL REFERENCE
- EXIST. ASPHALT CONCRETE
- EXIST. CONCRETE
- PROPOSED CONCRETE
- PROPOSED ASPHALT CONCRETE (SEE SHEETS 18-19)
- STAMPED MEDIAN (CITY STD. C-35)
- GRADE BREAK/CROWN
- SWALE

RIGGIN AVE.



SHIRK RD. STA: 5+00 – END



NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

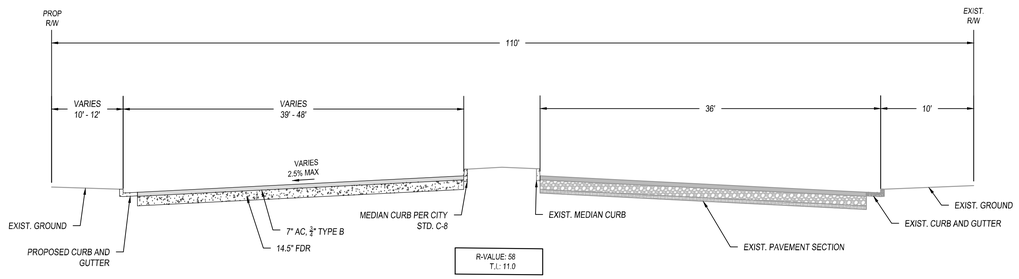
DRW BY: MH | CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

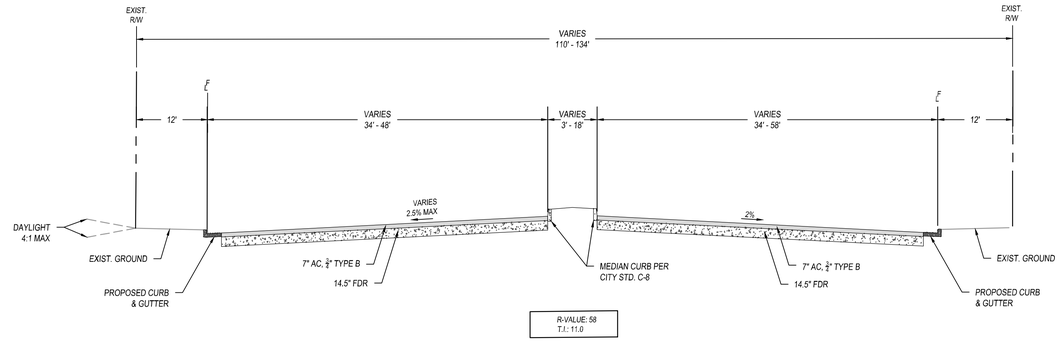
RIGGIN AVENUE WIDENING & IMPROVEMENTS

IMPROVEMENT PLAN & PROFILE

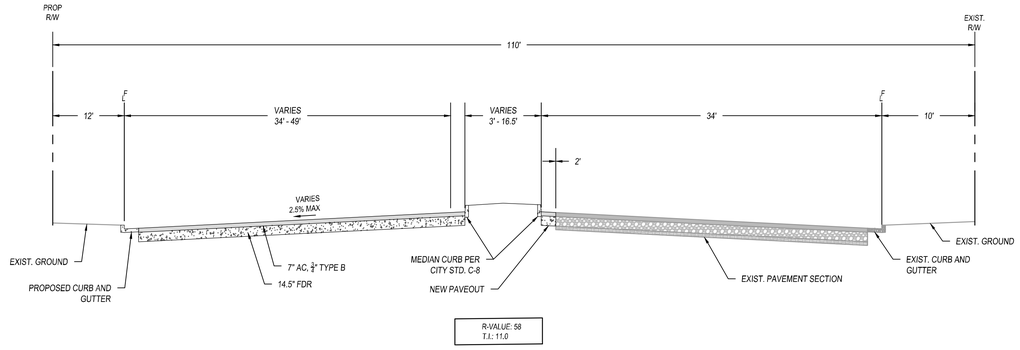
PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 17 OF 59



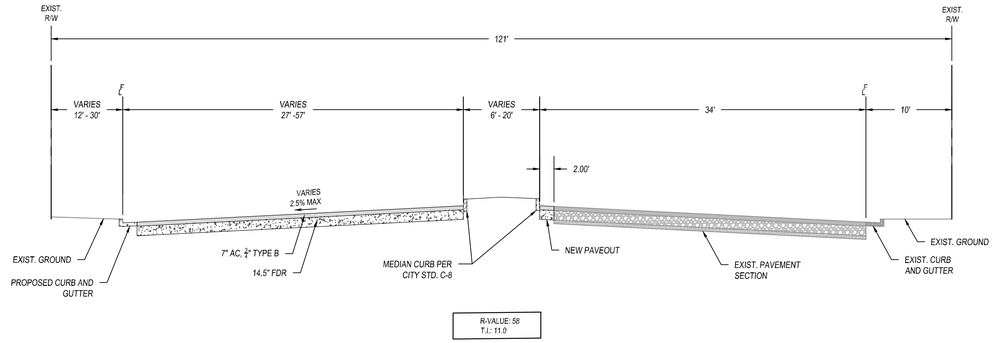
RIGGIN AVENUE
STA: 13+68 - STA: 14+67
(LOOKING EAST)



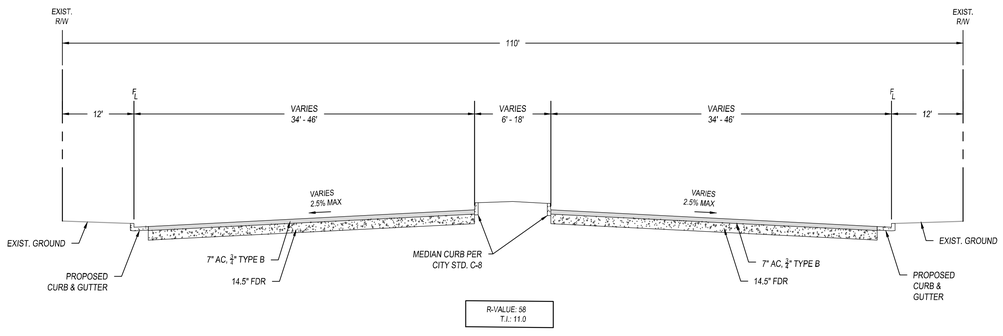
RIGGIN AVE.
STA: 46+96 - STA: 61+85
(LOOKING EAST)



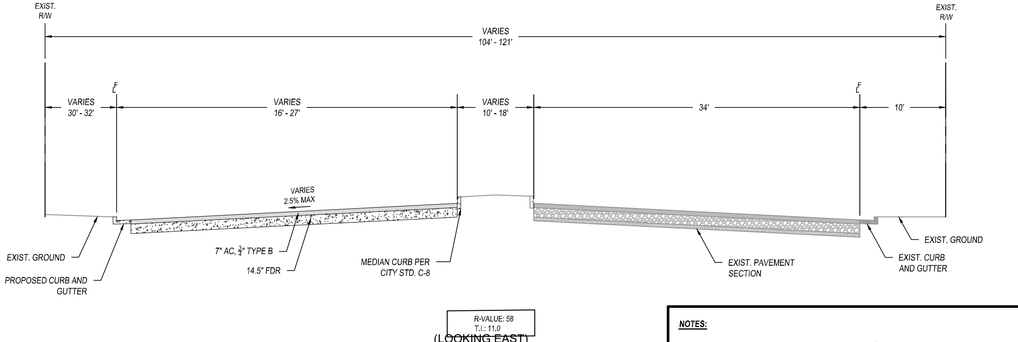
RIGGIN AVENUE
STA: 13+68 - STA: 29+81
(LOOKING EAST)



RIGGIN AVE.
STA: 63+29 - STA: 67+67
(LOOKING EAST)



RIGGIN AVENUE
STA: 29+81 - 49+96
(LOOKING EAST)



(LOOKING EAST)

RIGGIN AVE.
STA: 67+67 - STA: 70+46

NOTES:

1. ASPHALT CONCRETE SHALL BE TYPE A, WITH ¾" AGGREGATE GRADATION AND PG 64-10 LIQUID ASPHALT BINDER PER CITY OF VISALIA STANDARD SPECIFICATIONS.
2. TACK COAT IS REQUIRED AND SHALL BE APPLIED PER CITY STANDARD SPECIFICATIONS.
3. ASPHALT CONCRETE REQUIREMENTS SHALL BE AS STATED IN THE CITY OF VISALIA STANDARD SPECIFICATIONS.
4. ASPHALT CONCRETE SHALL BE PLACED ONLY WHEN THE ATMOSPHERIC TEMPERATURE IS 50° F AND RISING.

NO.	DATE	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER
PHILIP J. MCMILLAN
No. 79601
Exp. 09/30/22
CIVIL
STATE OF CALIFORNIA

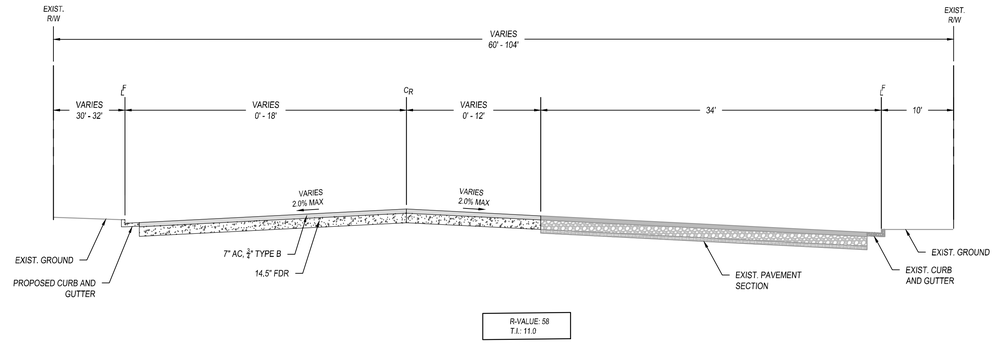
PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

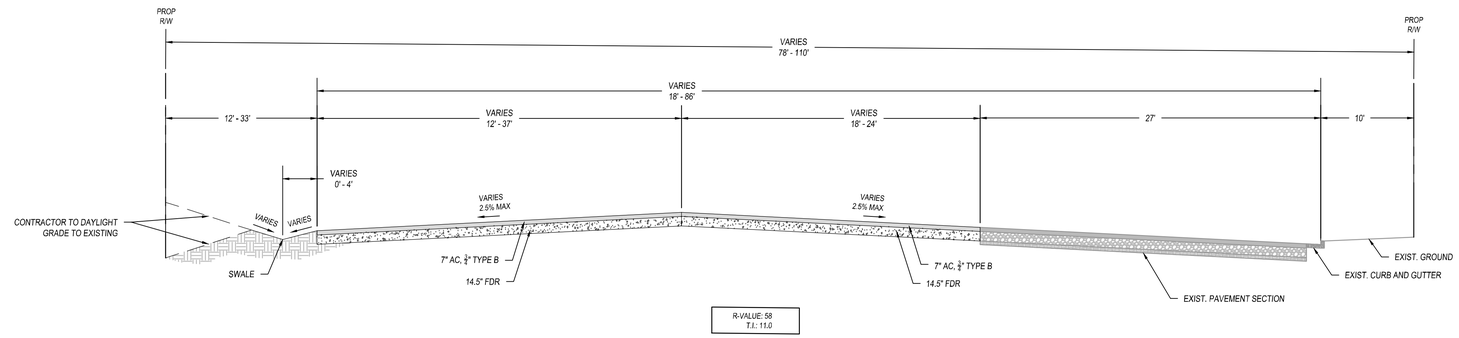
CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS
CROSS SECTIONS

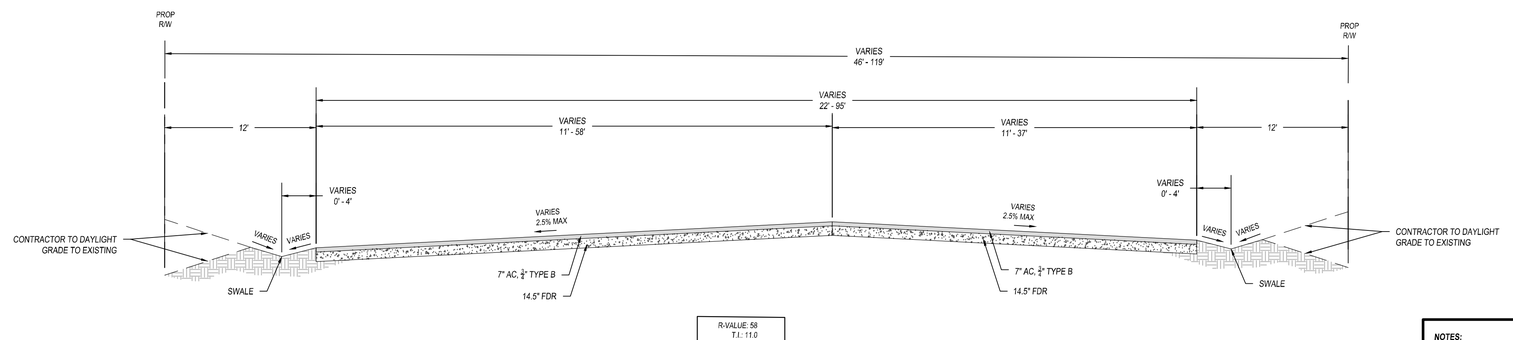
PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 18 OF 59



RIGGIN AVENUE
STA: 70+46 - STA: 73+26
(LOOKING EAST)



SHIRK RD.
STA: 6+11 - STA: 9+10
(LOOKING NORTH)



SHIRK RD.
STA: 10+89 - STA: 13+89
(LOOKING NORTH)

NOTES:

1. ASPHALT CONCRETE SHALL BE TYPE A, WITH ¾" AGGREGATE GRADATION AND PG 64-10 LIQUID ASPHALT BINDER PER CITY OF VISALIA STANDARD SPECIFICATIONS.
2. TACK COAT IS REQUIRED AND SHALL BE APPLIED PER CITY STANDARD SPECIFICATIONS.
3. ASPHALT CONCRETE REQUIREMENTS SHALL BE AS STATED IN THE CITY OF VISALIA STANDARD SPECIFICATIONS.
4. ASPHALT CONCRETE SHALL BE PLACED ONLY WHEN THE ATMOSPHERIC TEMPERATURE IS 50° F AND RISING.

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER * MICHAEL HOLLAND * No. 69338 * STATE OF CALIFORNIA * CIVIL

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS
CROSS SECTIONS

PROJ. NO. 20205	
DATE:2/1/22	
DESIGN BY: KM	DRAWN BY:MH
SCALE: AS SHOWN	
SHEET 19 OF 59	

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH
40' 0' 40'

LEGEND & KEYNOTES

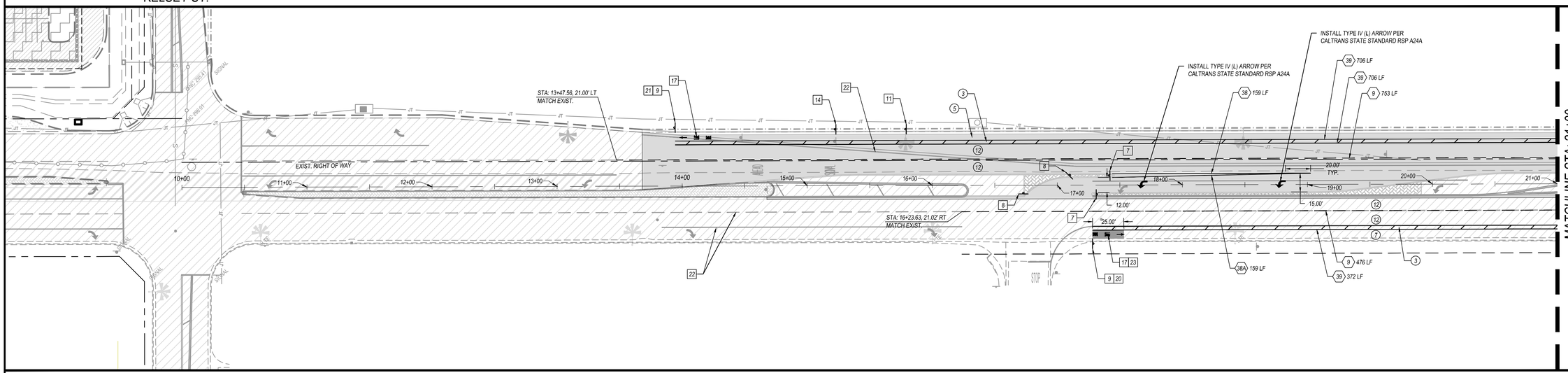
- (X) INSTALL DETAIL NO. PER STATE STANDARD PLANS (PER LENGTH SHOWN ON PLANS)
- (X) NO. INDICATES WIDTH OF LANE
- 1 TIMBER BARRICADE, SEE CITY STD. B-1.
- 2 INSTALL BASIC CROSSWALK PER CALTRANS STANDARD PLAN A24F. PAINT SHALL BE WHITE THERMOPLASTIC PAINT.
- 3 PAINT CURB RED (PER LENGTH SHOWN ON PLANS).
- 4 CONTRACTOR TO ADD DELINEATORS PER DETAIL XX, SHEET X. DELINEATORS TO BE PLACED EVERY 25' ON CENTER WITHIN BUFFER ZONE, ADD DIAGONAL 4" WIDE STRIPES AT 45 DEGREES AT 40' ON CENTER WITHIN BUFFER ZONE.
- 5 INSTALL R4-7 AND OM-11 SIGNS PER CITY STD. TS-8.
- 6 INSTALL R6-1R AND OM1-1 SIGNS PER CITY STD. TS-8.
- 7 INSTALL TYPE H MARKERS AND OM2-1H SIGN PER CITY STD. TS-8.
- 8 INSTALL R5-1 SIGN PER CITY STD. TS-8.
- 9 INSTALL R81(CA) SIGN.
- 10 INSTALL R3-7R AND R118(CA) AND R118(CA) SIGNS.
- 11 INSTALL R7-9A SIGN.
- 12 INSTALL R4-4 SIGN.
- 13 INSTALL W74(CA) SIGN.
- 14 INSTALL W3-3 SIGN.
- 15 INSTALL W4-2 SIGN.
- 16 INSTALL R3-8B SIGN.
- 17 INSTALL BIKE LANE MARKING PER CALTRANS STATE STD. RSP A24D.
- 18 INSTALL R3-5 (MODIFIED) SIGN. SEE THIS SHEET.
- 19 INSTALL TRUCK SIGN, RELOCATED TRUCK ROUTE SIGN.
- 20 INSTALL R81A(CA) SIGN.
- 21 INSTALL R81B(CA) SIGN.
- 22 REMOVE EXISTING STRIPING.
- 23 INSTALL GREEN PAINT, SEE NOTE 9 ON THIS SHEET.
- 24 INSTALL STREET NAME SIGN PER CITY STD. TS-1.
- 25 TYPE I PEDESTRIAN BARRICADE PER CALTRANS STD. ES-7Q

- INSTALL TYPE IV (L) PAVEMENT MARKING
- INSTALL TYPE IV (R) PAVEMENT MARKING
- INSTALL TYPE IV PAVEMENT MARKING
- INSTALL SHARROW
- INSTALL "STOP" PAVEMENT MARKING
- INSTALL "ONLY" PAVEMENT MARKING
- INSTALL BIKE LANE PAVEMENT MARKING
- FURNISH & INSTALL SIGN AND POST AT THIS LOCATION

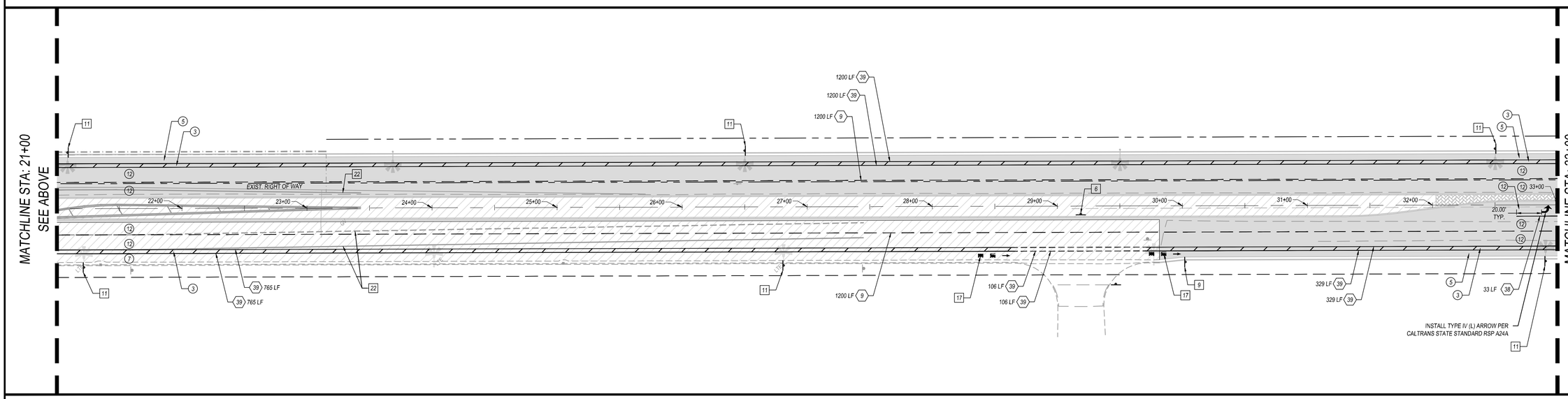
SIGNAL AND STRIPING NOTES:

1. WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, SIGN SPECIFICATION SHEETS, THE 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (2014 CALIFORNIA MUTCD, LATEST EDITION), THE LATEST EDITION OF THE CITY OF VISALIA STANDARD SPECIFICATION AND DRAWINGS, AND THE SPECIAL PROVISIONS.
2. THESE PLANS ARE ACCURATE FOR SIGNING AND STRIPING ONLY.
3. ALL CROSSWALKS SHALL BE 12 FEET WIDE, OUTSIDE EDGE TO OUTSIDE EDGE PER CALTRANS STANDARD PLAN A24F, UNLESS OTHERWISE NOTED ON THE PLANS.
4. INTERSECTION STREET NAME SIGNS SHALL BE INSTALLED PER CITY STANDARD DRAWINGS TS-4, TS-5, AND TS-7, UNLESS OTHERWISE NOTED ON THE PLANS.
5. ALL SIGNS SHALL BE INSTALLED PER 2014 CALIFORNIA MUTCD, LATEST EDITION.
6. TYPE IV WHITE ARROW (RIGHT AND LEFT) SHALL BE INSTALLED PER STATE STANDARDS, UNLESS OTHERWISE NOTED ON THE PLANS.
7. ALL EXISTING STRIPING TO BE REMOVED OR IN CONFLICT IS TO BE REMOVED WITH LIGHTLY GRINDING.
8. INSTALL "NO PARKING" SIGNS ON STREET LIGHT POLES WHEN POSSIBLE
9. GREEN PAINT: 75% METHYL METHACRYLATE (MMA) INTERMIXED WITH HARD-WEARING AGGREGATE (MOHS HARDNESS > 7). THE FINISHED APPLICATION SHALL BE 90-MILS THICK, COLOR STABLE WITH > 60 BPN SLIP RESISTANCE. TYPE ENNISFLIT "MMAX, TRANSPO COLOR-SAFE" OR APPROVED EQUAL. PAINT SHALL EXTEND FULL WIDTH OF BIKE LANE FROM GUTTER LIP TO LANE LINE, FOR 25 LF IN DIRECTION OF TRAVEL.

KELSEY ST.



RIGGIN AVE. STA: 10+00 – 21+00



RIGGIN AVE. STA: 21+00 – 33+00

NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
SIGNING, STRIPING & MARKING PLAN

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 20 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH
40' 0' 40'

LEGEND & KEYNOTES

- (X) INSTALL DETAIL NO. PER STATE STANDARD PLANS (PER LENGTH SHOWN ON PLANS)
- (X) NO. INDICATES WIDTH OF LANE
- 1 TIMBER BARRICADE, SEE CITY STD. B-1.
- 2 INSTALL BASIC CROSSWALK PER CALTRANS STANDARD PLAN A24F. PAINT SHALL BE WHITE THERMOPLASTIC PAINT.
- 3 PAINT CURB RED (PER LENGTH SHOWN ON PLANS).
- 4 CONTRACTOR TO ADD DELINEATORS PER DETAIL XX, SHEET X. DELINEATORS TO BE PLACED EVERY 25' ON CENTER WITHIN BUFFER ZONE, ADD DIAGONAL 4" WIDE STRIPES AT 45 DEGREES AT 40' ON CENTER WITHIN BUFFER ZONE.
- 5 INSTALL R4-7 AND OM4-11 SIGNS PER CITY STD. TS-8.
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- 7 INSTALL TYPE H MARKERS AND OM2-1H SIGN PER CITY STD. TS-8.
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- 9 INSTALL R81(CA) SIGN.
- 10 INSTALL R3-7R AND R118(CA) AND R118(CA) SIGNS.
- 11 INSTALL R7-9A SIGN.
- 12 INSTALL R4-4 SIGN.
- 13 INSTALL W74(CA) SIGN.
- 14 INSTALL W3-3 SIGN.
- 15 INSTALL W4-2 SIGN.
- 16 INSTALL R3-8B SIGN.
- 17 INSTALL BIKE LANE MARKING PER CALTRANS STATE STD. RSP A24D.
- 18 INSTALL R3-5 (MODIFIED) SIGN, SEE THIS SHEET.
- 19 INSTALL TRUCK SIGN, RELOCATED TRUCK ROUTE SIGN.
- 20 INSTALL R81A(CA) SIGN.
- 21 INSTALL R81B(CA) SIGN.
- 22 REMOVE EXISTING STRIPING.
- 23 INSTALL GREEN PAINT, SEE NOTE 9 ON THIS SHEET.
- 24 INSTALL STREET NAME SIGN PER CITY STD. TS-1.
- 25 TYPE I PEDESTRIAN BARRICADE PER CALTRANS STD. ES-7Q

INSTALL TYPE IV (L) PAVEMENT MARKING
INSTALL TYPE IV (R) PAVEMENT MARKING
INSTALL TYPE IV PAVEMENT MARKING
INSTALL SHARROW
INSTALL "STOP" PAVEMENT MARKING
INSTALL "ONLY" PAVEMENT MARKING
INSTALL BIKE LANE PAVEMENT MARKING
FURNISH & INSTALL SIGN AND POST AT THIS LOCATION

SIGNAL AND STRIPING NOTES:

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2. THESE PLANS ARE ACCURATE FOR SIGNING AND STRIPING ONLY.
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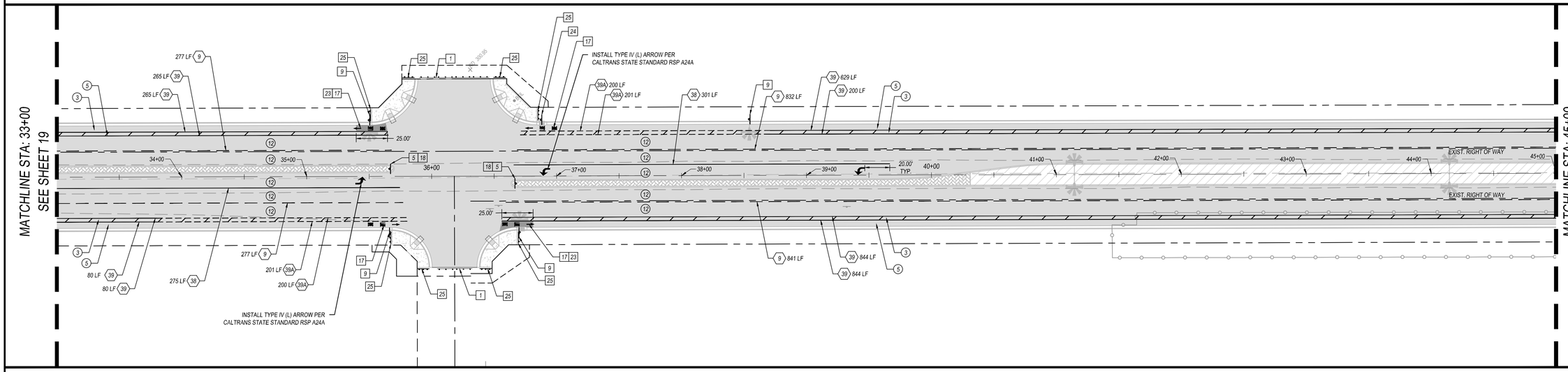
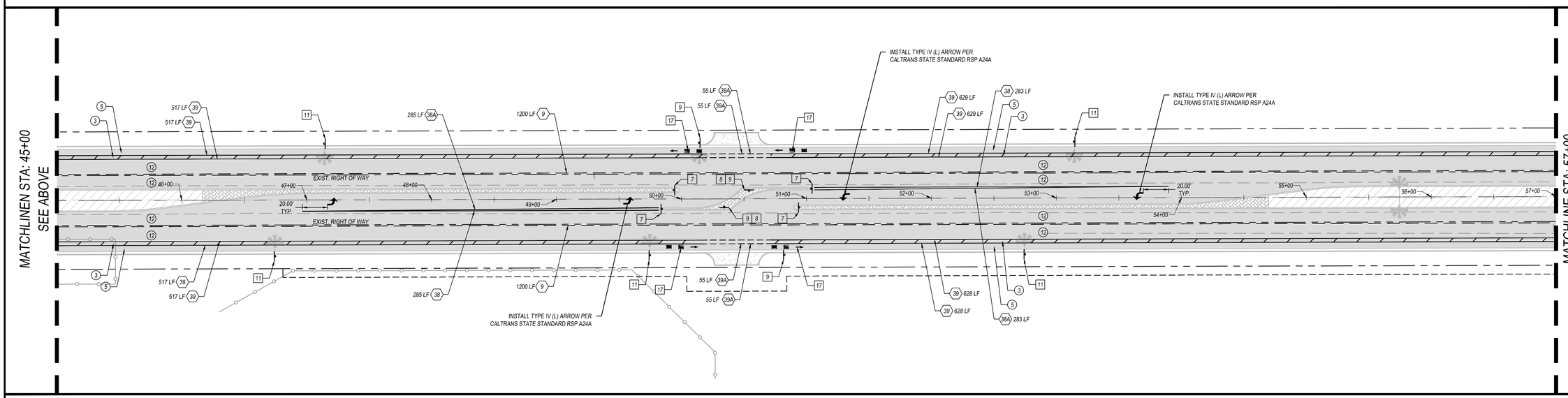
4. INTERSECTION STREET NAME SIGNS SHALL BE INSTALLED PER CITY STANDARD DRAWINGS TS-4, TS-5, AND TS-7, UNLESS OTHERWISE NOTED ON THE PLANS.
5. ALL SIGNS SHALL BE INSTALLED PER 2014 CALIFORNIA MUTCD, LATEST EDITION.
6. TYPE IV WHITE ARROW (RIGHT AND LEFT) SHALL BE INSTALLED PER STATE STANDARDS, UNLESS OTHERWISE NOTED ON THE PLANS.
7. ALL EXISTING STRIPING TO BE REMOVED OR IN CONFLICT IS TO BE REMOVED WITH LIGHTLY GRINDING.
8. INSTALL "NO PARKING" SIGNS ON STREET LIGHT POLES WHEN POSSIBLE
9. GREEN PAINT: 75% METHYL METHACRYLATE (MMA) INTERMIXED WITH HARD-WEARING AGGREGATE (MOHS HARDNESS > 7). THE FINISHED APPLICATION SHALL BE 90 MILS THICK, COLOR STABLE WITH > 60 BPN SLIP RESISTANCE. TYPE ENNISFLIT "MMAX TRANSPO COLOR-SAFE" OR APPROVED EQUAL. PAINT SHALL EXTEND FULL WIDTH OF BIKE LANE FROM GUTTER LIP TO LANE LINE, FOR 25 LF IN DIRECTION OF TRAVEL.

CLANCY ST.



RIGGIN AVE. STA: 33+00 – 45+00



RIGGIN AVE. STA: 45+00 – 57+00

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER MICHAEL HOLLOWAY 21151 STATE OF CALIFORNIA CIVIL

324 S. SANTA FE, STE A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM

PREPARED BY: 4CREEKS

DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
SIGNING, STRIPING & MARKING PLAN

PROJ. NO. 20205	
DATE:2/1/22	
DESIGN BY: KM	DRAWN BY:MH
SCALE: AS SHOWN	
SHEET 21 OF 59	

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH
40' 0' 40'

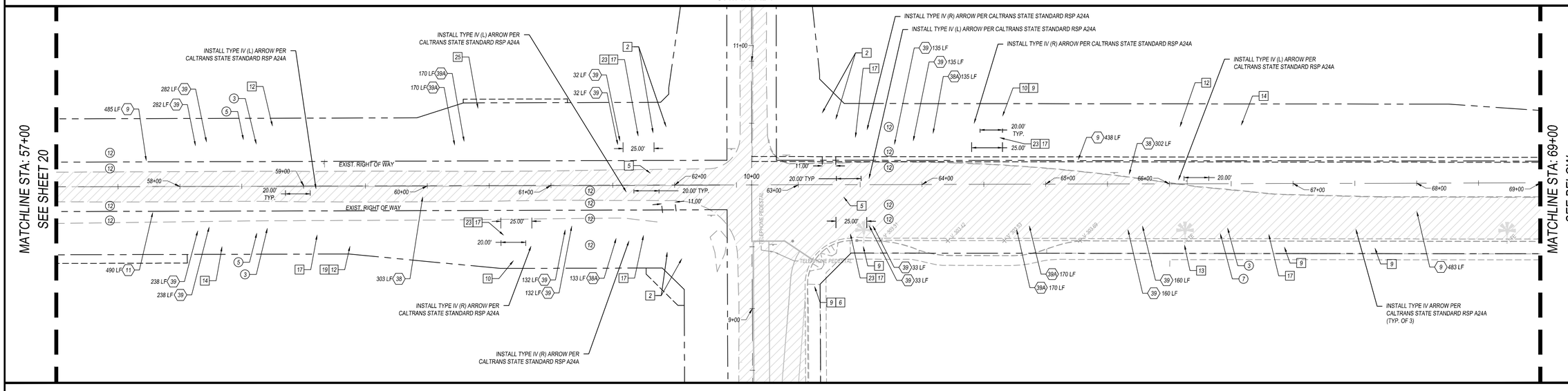
LEGEND & KEYNOTES

- (X) INSTALL DETAIL NO. PER STATE STANDARD PLANS (PER LENGTH SHOWN ON PLANS)
- (X) NO. INDICATES WIDTH OF LANE
- 1 TIMBER BARRICADE, SEE CITY STD. B-1.
- 2 INSTALL BASIC CROSSWALK PER CALTRANS STANDARD PLAN A24F. PAINT SHALL BE WHITE THERMOPLASTIC PAINT.
- 3 PAINT CURB RED (PER LENGTH SHOWN ON PLANS).
- 4 CONTRACTOR TO ADD DELINEATORS PER DETAIL XX, SHEET X. DELINEATORS TO BE PLACED EVERY 25' ON CENTER WITHIN BUFFER ZONE, ADD DIAGONAL 4" WIDE STRIPES AT 45 DEGREES AT 40' ON CENTER WITHIN BUFFER ZONE.
- 5 INSTALL R4-7 AND OM4-11 SIGNS PER CITY STD. TS-8.
- 6 INSTALL R6-1R AND OM1-1 SIGNS PER CITY STD. TS-8.
- 7 INSTALL TYPE H MARKERS AND OM2-1H SIGN PER CITY STD. TS-8.
- 8 INSTALL R5-1 SIGN PER CITY STD. TS-8.
- 9 INSTALL R81(CA) SIGN.
- 10 INSTALL R3-7R AND R118(CA) AND R118(CA) SIGNS.
- 11 INSTALL R7-9A SIGN.
- 12 INSTALL R4-4 SIGN.
- 13 INSTALL W74(CA) SIGN.
- 14 INSTALL W3-3 SIGN.
- 15 INSTALL W4-2 SIGN.
- 16 INSTALL R3-8B SIGN.
- 17 INSTALL BIKE LANE MARKING PER CALTRANS STATE STD. RSP A24D.
- 18 INSTALL R3-5 (MODIFIED) SIGN. SEE THIS SHEET.
- 19 INSTALL TRUCK SIGN, RELOCATED TRUCK ROUTE SIGN.
- 20 INSTALL R81A(CA) SIGN.
- 21 INSTALL R81B(CA) SIGN.
- 22 REMOVE EXISTING STRIPING.
- 23 INSTALL GREEN PAINT, SEE NOTE 9 ON THIS SHEET.
- 24 INSTALL STREET NAME SIGN PER CITY STD. TS-1.
- 25 TYPE I PEDESTRIAN BARRICADE PER CALTRANS STD. ES-7Q

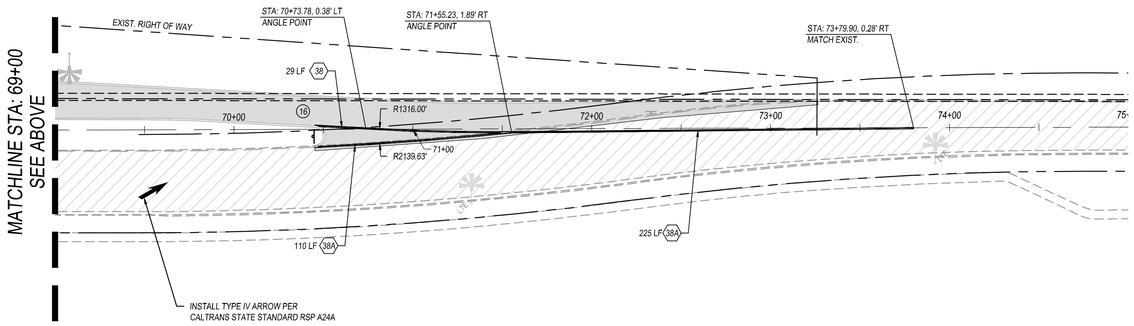
INSTALL TYPE IV (L) PAVEMENT MARKING
INSTALL TYPE IV (R) PAVEMENT MARKING
INSTALL TYPE IV PAVEMENT MARKING
INSTALL SHARROW
INSTALL "STOP" PAVEMENT MARKING
INSTALL "ONLY" PAVEMENT MARKING
INSTALL BIKE LANE PAVEMENT MARKING
FURNISH & INSTALL SIGN AND POST AT THIS LOCATION

SIGNAL AND STRIPING NOTES:

1. WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, SIGN SPECIFICATION SHEETS, THE 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (2014 CALIFORNIA MUTCD, LATEST EDITION), THE LATEST EDITION OF THE CITY OF VISALIA STANDARD SPECIFICATION AND DRAWINGS, AND THE SPECIAL PROVISIONS.
2. THESE PLANS ARE ACCURATE FOR SIGNING AND STRIPING ONLY.
3. ALL CROSSWALKS SHALL BE 12 FEET WIDE, OUTSIDE EDGE TO OUTSIDE EDGE PER CALTRANS STANDARD PLAN A24F, UNLESS OTHERWISE NOTED ON THE PLANS.
4. INTERSECTION STREET NAME SIGNS SHALL BE INSTALLED PER CITY STANDARD DRAWINGS TS-4, TS-5, AND TS-7, UNLESS OTHERWISE NOTED ON THE PLANS.
5. ALL SIGNS SHALL BE INSTALLED PER 2014 CALIFORNIA MUTCD, LATEST EDITION.
6. TYPE IV WHITE ARROW (RIGHT AND LEFT) SHALL BE INSTALLED PER STATE STANDARDS, UNLESS OTHERWISE NOTED ON THE PLANS.
7. ALL EXISTING STRIPING TO BE REMOVED OR IN CONFLICT IS TO BE REMOVED WITH LIGHTLY GRINDING.
8. INSTALL "NO PARKING" SIGNS ON STREET LIGHT POLES WHEN POSSIBLE
9. GREEN PAINT: 75% METHYL METHACRYLATE (MMA) INTERMIXED WITH HARD-WEARING AGGREGATE (MOHS HARDNESS > 7). THE FINISHED APPLICATION SHALL BE 90 MILS THICK, COLOR STABLE WITH > 60 BPN SLIP RESISTANCE. TYPE ENNISFLIT "MMAX, TRANSPO COLOR-SAFE" OR APPROVED EQUAL. PAINT SHALL EXTEND FULL WIDTH OF BIKE LANE FROM GUTTER LIP TO LANE LINE, FOR 25 LF IN DIRECTION OF TRAVEL.



RIGGIN AVE. STA: 57+00 – 69+00



RIGGIN AVE. STA: 69+00 – END

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER MICHAEL HOLLOWAY No. 81938 STATE OF CALIFORNIA

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM

PREPARED BY: 4CREEKS

DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
SIGNING, STRIPING & MARKING PLAN

PROJ. NO. 20205	
DATE: 2/1/22	
DESIGN BY: KM	DRAWN BY: MH
SCALE: AS SHOWN	
SHEET 22 OF 59	

Know what's **below.**
Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH
40' 0' 40'

LEGEND & KEYNOTES

- (X) INSTALL DETAIL NO. PER STATE STANDARD PLANS (PER LENGTH SHOWN ON PLANS)
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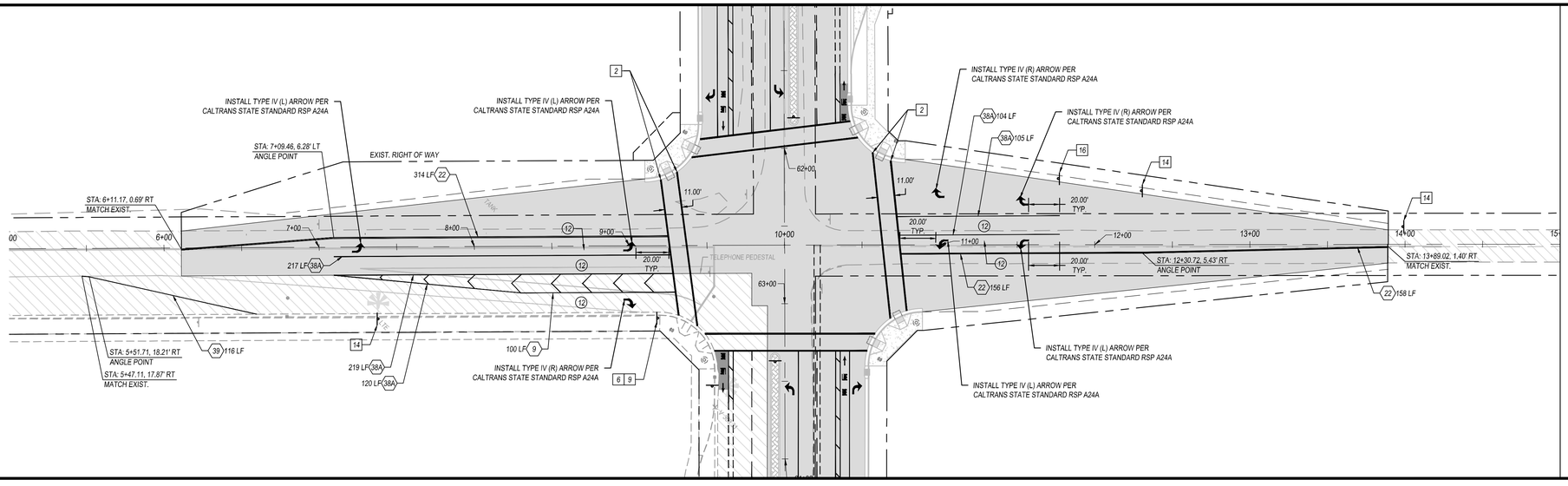
RIGGIN AVE.



SHIRK RD. STA: 5+00 – END

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — KEVIN MCCANN — No. 91519 — STATE OF CALIFORNIA — CIVIL

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
SIGNING, STRIPING & MARKING PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 23OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

SHEET NOTES

1. GENERAL: THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOREGOING GENERAL NOTES AND MECHANICAL NOTES SHALL APPLY TO ALL WORK HEREUNDER.
2. SCOPE: THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE WORKING ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS. IT SHALL, AT PROJECT COMPLETION AND BEFORE FINAL ACCEPTANCE, BE DEMONSTRATED TO HAVE A COMPLETE AND WORKING FUNCTIONAL OPERATION.
3. CODE COMPLIANCE: ALL WORK AND MATERIALS SHALL COMPLY WITH THE CALIFORNIA ELECTRICAL CODE (CEC); CALIFORNIA CODE OF REGULATIONS (CCR); CALIFORNIA BUILDING CODE (CBC), CAL OSHA; AND ALL OTHER LAWS, ORDINANCES AND REGULATIONS HAVING JURISDICTION ON THIS WORK.
4. UL APPROVAL: ALL MATERIAL AND EQUIPMENT WITHIN THE SCOPE OF THE UL REEXAMINATION SERVICE SHALL BE APPROVED BY THE UNDERWRITERS LABORATORIES FOR THE PURPOSE FOR WHICH THEY ARE USED AND SHALL BEAR THEIR LABEL.
5. SUBMITTALS: SUBMIT MANUFACTURER'S DATA FOR LIGHTING FIXTURES, DEVICES, PANELBOARDS, ETC., TO BE USED ON THE PROJECT.
6. RECORD DRAWINGS: THE CONTRACTOR SHALL FURNISH TO THE ENGINEER, A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS WHICH CLEARLY INDICATE ALL DEVIATIONS FROM THE BASIC CONTRACT DOCUMENTS, INCLUDING LOCATION AND DEPTH FOR ALL STUBBED CONDUITS, LOCATION AND SIZE FOR ALL SPARE CONDUITS, CONDUIT ROUTING, AND CONDUCTORS. CIRCUIT NUMBERS FOR ALL DEVICES (NEW AND EXISTING) WITHIN THE AREA OF WORK SHALL BE VERIFIED AND INDICATED ON RECORD DRAWINGS.
7. POLES AND FIXTURES SHALL BE INSTALLED PER CURRENT CITY OF VISALIA STREET LIGHT STANDARDS.
8. STREET LIGHT FOUNDATIONS ARE TO BE INSTALLED AS SHOWN ON 2016 VISALIA STREET LIGHT STANDARDS SL-6. FOUNDATIONS SHALL BE INSTALLED 2' FROM CENTER OF FOUNDATION TO FACE OF CURB.
9. CONDUIT INSTALLED SHALL BE 1 ½" PVC SCHEDULE 40. CONDUIT DEPTH SHALL BE MINIMUM 36" OF COVER UNDER ROADWAYS AND 24" ELSEWHERE.
10. CONDUCTORS INSTALLED SHALL BE AS SHOWN ON 2016 VISALIA STREET LIGHT STANDARDS SL-8.
11. STREET LIGHT METER PEDESTAL SHALL BE INSTALLED PER MODIFIED 2016 VISALIA STREET LIGHT STANDARDS SL-9.
12. STUB CONDUIT AS SHOWN FOR FUTURE EXTENSION ON STREET LIGHTS. INSTALL PULL BOX AT END OF STUB.
13. AFTER CONDUCTOR INSTALLATION, ALL CONDUITS WILL BE SEALED WITH DUCTSEAL..
14. CONDUCTORS SHALL HAVE XHHW INSULATION TYPE.
15. ALL ELECTRICAL PEDESTALS ARE TO BE INSTALLED IN THE CITY RIGHT OF WAY.

LEGEND

SL-5	26'(ARTERIAL/COLLECTOR) POLE W/ 8' ARM AND GREENCOBRA LED FIXTURE.
GR	5/8" x 8' COPPER CLAD GROUND ROD INSTALLED AT SERVICE PEDESTAL AND IN PULL BOXES AS DESIGNED ON THE PLANS. BOX LID TO BE GROUNDED
PC	POLE TOP MOUNTED PHOTOCELL
SP	SERVICE POINT. STREET LIGHT METER PEDESTAL INSTALLED PER SL-9
	STREET LIGHT (ARTERIAL & MAJOR COLLECTOR)
	STREET LIGHT (ARTERIAL & MAJOR COLLECTOR) - DOUBLE HEAD
	STREETLIGHT PULL BOX - INSTALLED AS PER SL-7. BOX LID TO BE GROUNDED
	120/240 METER PEDESTAL
	NEW STREET LIGHT CABLE IN 1-1/2" CONDUIT
	EXISTING 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN)

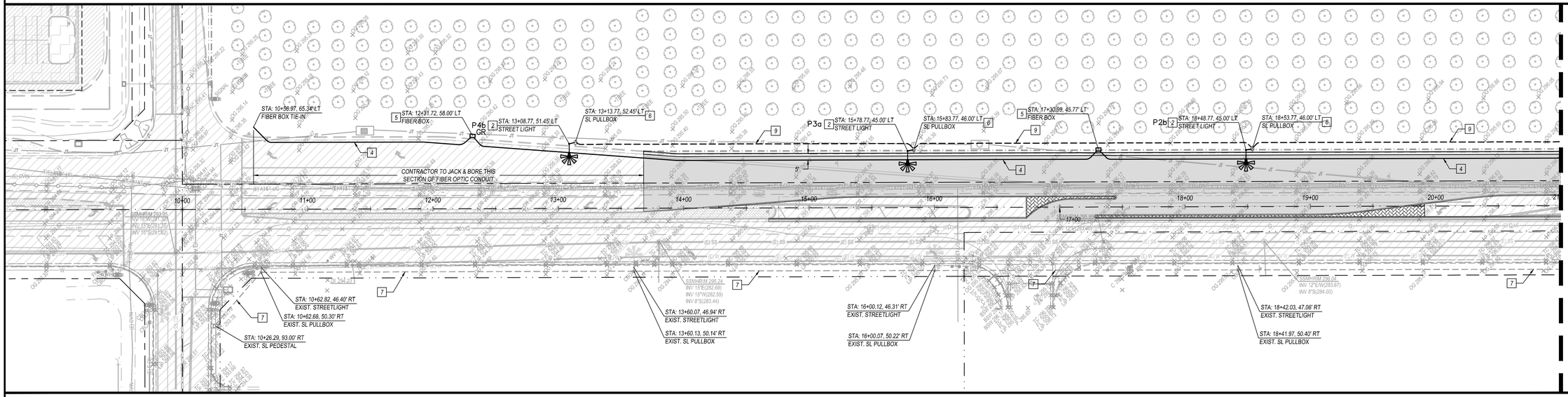
FIXTURES

COUNT:
METER PEDESTAL = 3(NEW)
PULL BOXES = 33
SL-5 STREET LIGHTS W/ LEOTEK GC1-60F DOUBLE LED HEAD (13400 LUMEN EACH) = 3
GC1-60F-MV-NW-3-GY-700
SL-5 STREET LIGHTS W/ LEOTEK GC1-60F LED HEAD (13400 LUMEN) = 22
GC1-60F-MV-NW-3-GY-700

CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

1. INSTALL CITY STD. TE-10 FIBER PULL BOX PER DETAIL TE-10, SHEET 36.
2. INSTALL CITY STD. STREETLIGHT PER DETAIL SL-5, SHEET 35.
3. INSTALL CITY STD. DUAL MEDIAN STREETLIGHT PER DETAIL SL-5, SHEET 35.
4. INSTALL 3" PVC CONDUIT WITH TRACER WIRE AND PULL ROPE.
5. INSTALL CITY STD. TE-5 FIBER PULL BOX PER DETAIL TE-5, SHEET 35.
6. INSTALL CITY STD. STREETLIGHT PULL BOX PER DETAIL SL-7, SHEET 35.
7. EXISTING 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN)
8. INTSTALL EMPTY 1-1/2" PVC CONDUIT FOR FUTURE STREET LIGHTS
9. INSTALL 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN)
10. INSTALL 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN) AND 3/C 3-#14CU (1 RUN)

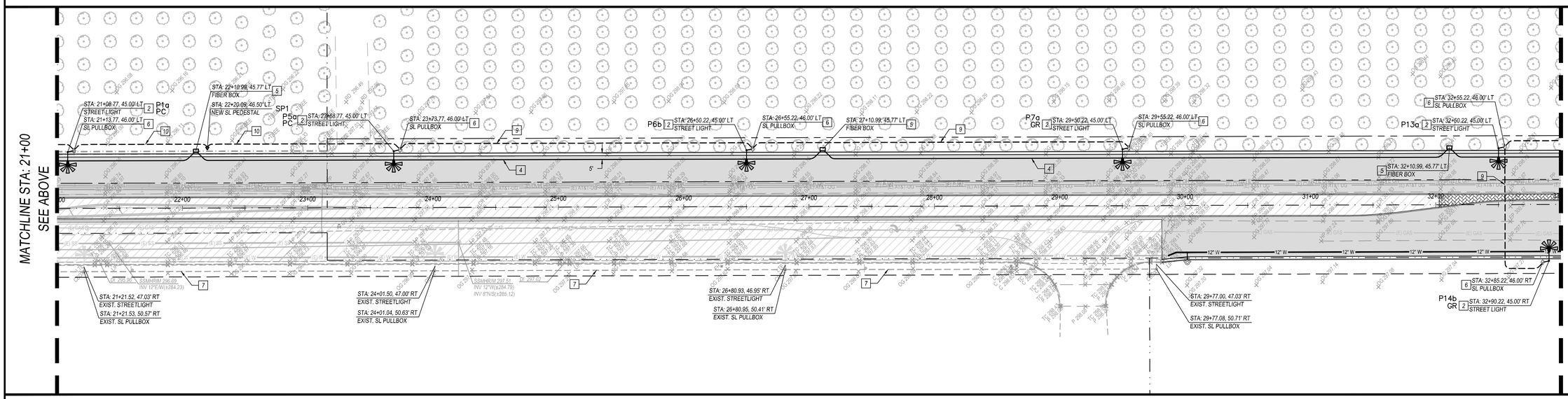
KELSEY ST.



RIGGIN AVE. STA: 10+00 – 21+00

FIBER OPTIC CONDUIT / STREET LIGHT CONDUIT NOTES (THIS SHEET ONLY)

1. CONTRACTOR TO INSTALL FIBER OPTIC & STREET LIGHT CONDUIT PER CITY STD. TE-9, SHEET 35 (WHERE APPLICABLE).



RIGGIN AVE. STA: 21+00 – 33+00

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — MARK A. KIMBALL — No. 19151 — STATE OF CALIFORNIA

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS
CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
STREET LIGHTING & FIBER INTERCONNECT PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 24 OF 59

811 Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH
40' 0' 40'

SHEET NOTES

1. GENERAL: THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOREGOING GENERAL NOTES AND MECHANICAL NOTES SHALL APPLY TO ALL WORK HEREUNDER.
2. SCOPE: THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE WORKING ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS. IT SHALL, AT PROJECT COMPLETION AND BEFORE FINAL ACCEPTANCE, BE DEMONSTRATED TO HAVE A COMPLETE AND WORKING FUNCTIONAL OPERATION.
3. CODE COMPLIANCE: ALL WORK AND MATERIALS SHALL COMPLY WITH THE CALIFORNIA ELECTRICAL CODE (CEC); CALIFORNIA CODE OF REGULATIONS (CCR); CALIFORNIA BUILDING CODE (CBC), CAL OSHA; AND ALL OTHER LAWS, ORDINANCES AND REGULATIONS HAVING JURISDICTION ON THIS WORK.
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8. STREET LIGHT FOUNDATIONS ARE TO BE INSTALLED AS SHOWN ON 2016 VISALIA STREET LIGHT STANDARDS SL-6. FOUNDATIONS SHALL BE INSTALLED 2' FROM CENTER OF FOUNDATION TO FACE OF CURB.
9. CONDUIT INSTALLED SHALL BE 1 ½" PVC SCHEDULE 40. CONDUIT DEPTH SHALL BE MINIMUM 36" OF COVER UNDER ROADWAYS AND 24" ELSEWHERE.
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LEGEND

SL-5	26'(ARTERIAL/COLLECTOR) POLE W/ 8' ARM AND GREENCOBRA LED FIXTURE.
GR	5/8" x 8' COPPER CLAD GROUND ROD INSTALLED AT SERVICE PEDESTAL AND IN PULL BOXES AS DESIGNED ON THE PLANS. BOX LID TO BE GROUNDED
PC	POLE TOP MOUNTED PHOTOCELL
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	STREET LIGHT (ARTERIAL & MAJOR COLLECTOR)
	STREET LIGHT (ARTERIAL & MAJOR COLLECTOR) - DOUBLE HEAD
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FIXTURES

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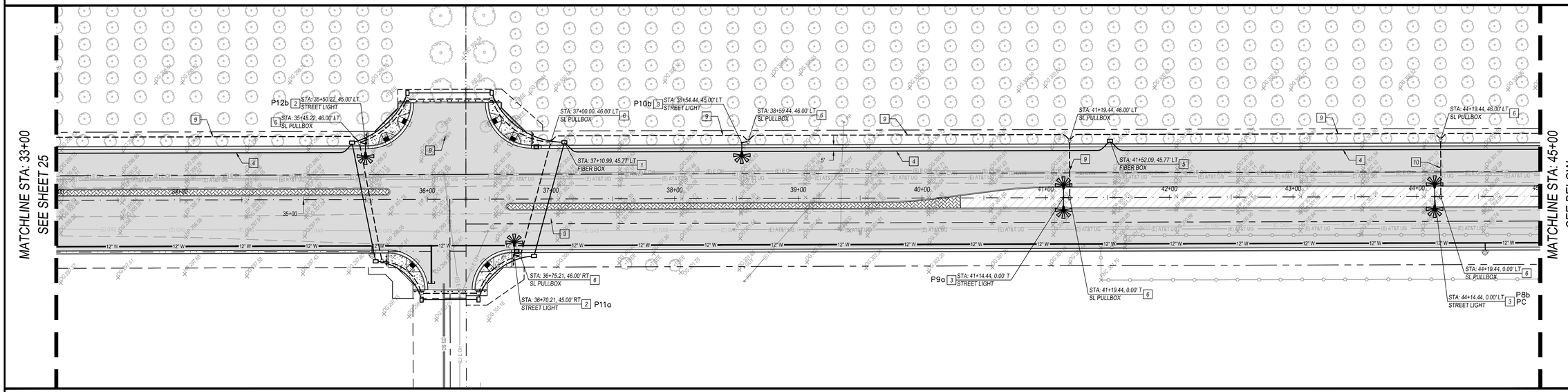
CLANCY ST.



RIGGIN AVE. STA: 33+00 – 45+00

FIBER OPTIC CONDUIT / STREET LIGHT CONDUIT NOTES (THIS SHEET ONLY)

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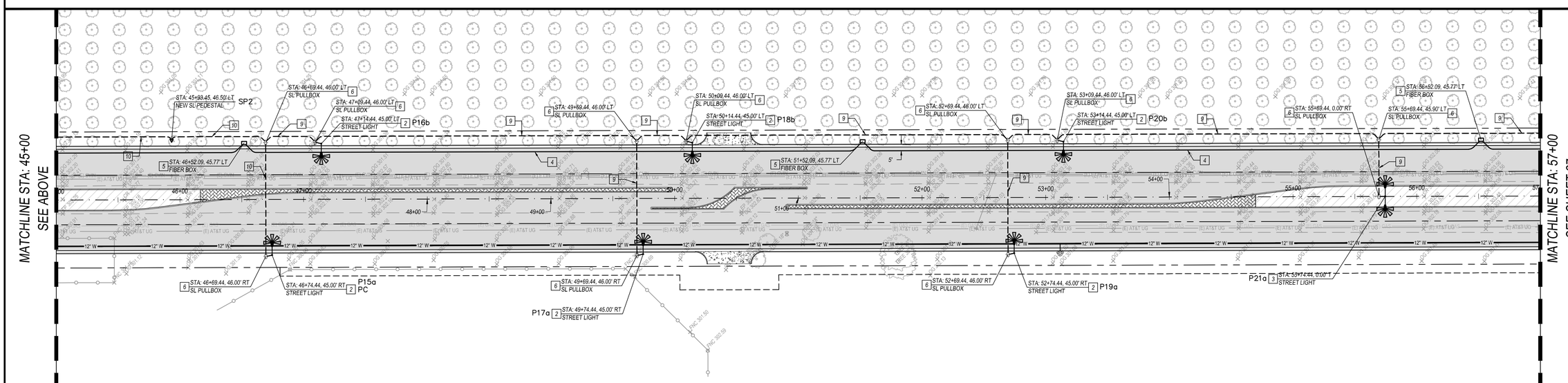


RIGGIN AVE. STA: 45+00 – 57+00

NO.	DATE	DESCRIPTION

PREPARED BY: 4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
STREET LIGHTING & FIBER INTERCONNECT PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 25 OF 59

Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

NORTH

40' 0' 40'

SHEET NOTES

1. GENERAL: THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOREGOING GENERAL NOTES AND MECHANICAL NOTES SHALL APPLY TO ALL WORK HEREUNDER.
2. SCOPE: THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE WORKING ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS. IT SHALL, AT PROJECT COMPLETION AND BEFORE FINAL ACCEPTANCE, BE DEMONSTRATED TO HAVE A COMPLETE AND WORKING FUNCTIONAL OPERATION.
3. CODE COMPLIANCE: ALL WORK AND MATERIALS SHALL COMPLY WITH THE CALIFORNIA ELECTRICAL CODE (CEC); CALIFORNIA CODE OF REGULATIONS (CCR); CALIFORNIA BUILDING CODE (CBC), CAL OSHA; AND ALL OTHER LAWS, ORDINANCES AND REGULATIONS HAVING JURISDICTION ON THIS WORK.
4. UL APPROVAL: ALL MATERIAL AND EQUIPMENT WITHIN THE SCOPE OF THE UL REEXAMINATION SERVICE SHALL BE APPROVED BY THE UNDERWRITERS LABORATORIES FOR THE PURPOSE FOR WHICH THEY ARE USED AND SHALL BEAR THEIR LABEL.
5. SUBMITTALS: SUBMIT MANUFACTURER'S DATA FOR LIGHTING FIXTURES, DEVICES, PANELBOARDS, ETC., TO BE USED ON THE PROJECT.
6. RECORD DRAWINGS: THE CONTRACTOR SHALL FURNISH TO THE ENGINEER, A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS WHICH CLEARLY INDICATE ALL DEVIATIONS FROM THE BASIC CONTRACT DOCUMENTS, INCLUDING LOCATION AND DEPTH FOR ALL STUBBED CONDUITS, LOCATION AND SIZE FOR ALL SPARE CONDUITS, CONDUIT ROUTING, AND CONDUCTORS. CIRCUIT NUMBERS FOR ALL DEVICES (NEW AND EXISTING) WITHIN THE AREA OF WORK SHALL BE VERIFIED AND INDICATED ON RECORD DRAWINGS.
7. POLES AND FIXTURES SHALL BE INSTALLED PER CURRENT CITY OF VISALIA STREET LIGHT STANDARDS.
8. STREET LIGHT FOUNDATIONS ARE TO BE INSTALLED AS SHOWN ON 2016 VISALIA STREET LIGHT STANDARDS SL-6. FOUNDATIONS SHALL BE INSTALLED 2' FROM CENTER OF FOUNDATION TO FACE OF CURB.
9. CONDUIT INSTALLED SHALL BE 1 ½" PVC SCHEDULE 40. CONDUIT DEPTH SHALL BE MINIMUM 36" OF COVER UNDER ROADWAYS AND 24" ELSEWHERE.
10. CONDUCTORS INSTALLED SHALL BE AS SHOWN ON 2016 VISALIA STREET LIGHT STANDARDS SL-8.
11. STREET LIGHT METER PEDESTAL SHALL BE INSTALLED PER MODIFIED 2016 VISALIA STREET LIGHT STANDARDS SL-9.
12. STUB CONDUIT AS SHOWN FOR FUTURE EXTENSION ON STREET LIGHTS. INSTALL PULL BOX AT END OF STUB.
13. AFTER CONDUCTOR INSTALLATION, ALL CONDUITS WILL BE SEALED WITH DUCTSEAL..
14. CONDUCTORS SHALL HAVE XHHW INSULATION TYPE.
15. ALL ELECTRICAL PEDESTALS ARE TO BE INSTALLED IN THE CITY RIGHT OF WAY.

LEGEND

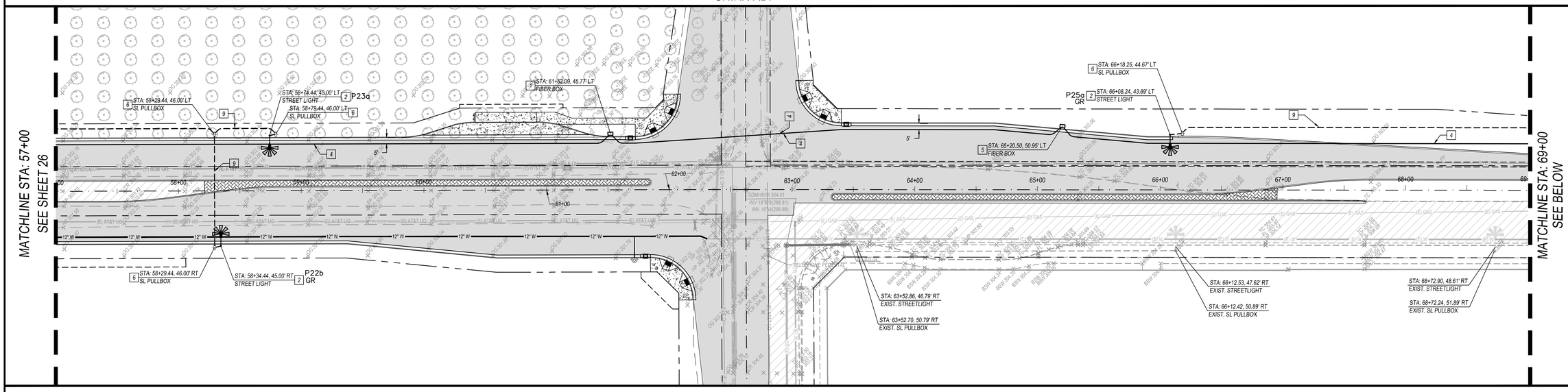
SL-5	26'(ARTERIAL/COLLECTOR) POLE W/ 8' ARM AND GREENCOBRA LED FIXTURE.
GR	5/8" x 8' COPPER CLAD GROUND ROD INSTALLED AT SERVICE PEDESTAL AND IN PULL BOXES AS DESIGNED ON THE PLANS. BOX LID TO BE GROUNDED
PC	POLE TOP MOUNTED PHOTOCELL
SP	SERVICE POINT. STREET LIGHT METER PEDESTAL INSTALLED PER SL-9
	STREET LIGHT (ARTERIAL & MAJOR COLLECTOR)
	STREET LIGHT (ARTERIAL & MAJOR COLLECTOR) - DOUBLE HEAD
	STREETLIGHT PULL BOX - INSTALLED AS PER SL-7. BOX LID TO BE GROUNDED
	120/240 METER PEDESTAL
	NEW STREET LIGHT CABLE IN 1-1/2" CONDUIT
	EXISTING 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN)

FIXTURES

COUNT:
METER PEDESTAL = 3(NEW)
PULL BOXES = 33
SL-5 STREET LIGHTS W/ LEOTEK GC1-60F DOUBLE LED HEAD (13400 LUMEN EACH) = 3
GC1-60F-MV-NW-3-GY-700
SL-5 STREET LIGHTS W/ LEOTEK GC1-60F LED HEAD (13400 LUMEN) = 22
GC1-60F-MV-NW-3-GY-700

CONSTRUCTION KEYNOTES (THIS SHEET ONLY)

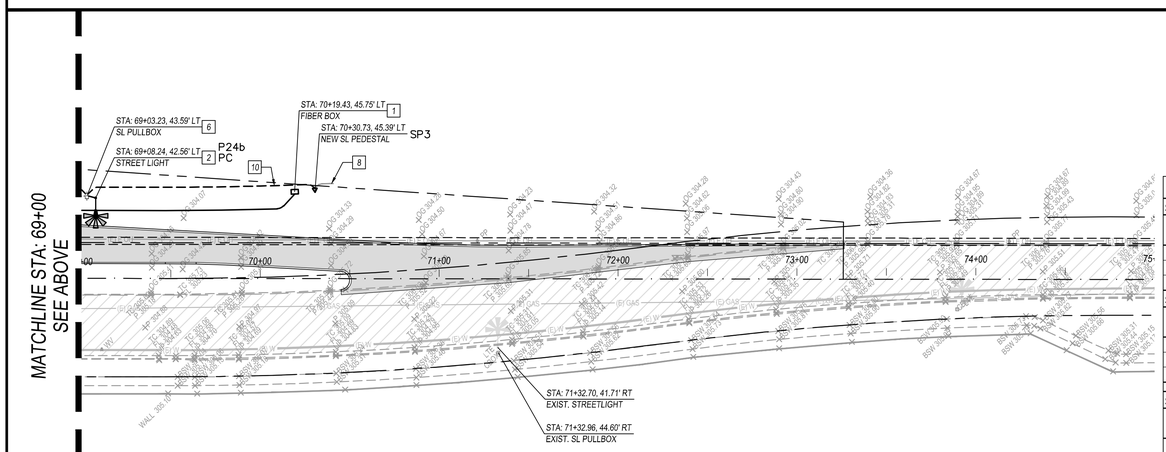
1. INSTALL CITY STD. TE-10 FIBER PULL BOX PER DETAIL TE-10, SHEET 36.
2. INSTALL CITY STD. STREETLIGHT PER DETAIL SL-5, SHEET 35.
3. INSTALL CITY STD. DUAL MEDIAN STREETLIGHT PER DETAIL SL-5. SHEET 35.
4. INSTALL 3" PVC CONDUIT WITH TRACER WIRE AND PULL ROPE.
5. INSTALL CITY STD. TE-5 FIBER PULL BOX PER DETAIL TE-5, SHEET 35.
6. INSTALL CITY STD. STREETLIGHT PULL BOX PER DETAIL SL-7, SHEET 35.
7. EXISTING 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN)
8. INTSTALL EMPTY 1-1/2" PVC CONDUIT FOR FUTURE STREET LIGHTS
9. INSTALL 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN)
10. INSTALL 1-1/2" PVC CONDUIT WITH 4/C 3-#6CU & 1-#8CU (1 RUN) AND 3/C 3-#14CU (1 RUN)



RIGGIN AVE. STA: 57+00 – 69+00

FIBER OPTIC CONDUIT / STREET LIGHT CONDUIT NOTES (THIS SHEET ONLY)

1. CONTRACTOR TO INSTALL FIBER OPTIC & STREET LIGHT CONDUIT PER CITY STD. TE-9, SHEET 35 (WHERE APPLICABLE).



VOLTAGE DROP CALCULATIONS

SP-1 - CIRCUIT 1

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P1a	DBL	26800	266	0.20%
P3a	DBL	26800	266	0.70%

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P2b	DBL	26800	266	0.70%
P4b	DBL	26800	266	1.20%

SP-1 - CIRCUIT 2

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P5a	SNGL	13400	133	0.29%
P7a	SNGL	13400	133	0.84%

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P6b	SNGL	13400	133	0.41%

SP-2 - CIRCUIT 1

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P9a	DBL	26800	266	1.88%
P11a	SNGL	13400	133	2.70%
P13a	SNGL	13400	133	3.01%

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P8b	DBL	26800	266	0.91%
P10b	SNGL	13400	133	2.42%
P12b	SNGL	13400	133	3.01%
P14b	SNGL	13400	133	3.41%

SP-2 - CIRCUIT 2

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P15a	SNGL	13400	133	0.53%
P17a	SNGL	13400	133	1.95%
P19a	SNGL	13400	133	3.09%
P21a	DBL	26800	266	3.94%
P23a	SNGL	13400	133	4.15%

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P16b	SNGL	13400	133	0.45%
P18b	SNGL	13400	133	1.30%
P20b	SNGL	13400	133	1.87%
P22b	SNGL	13400	133	2.45%

SP-3 - CIRCUIT 1

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P25a	SNGL	13400	133	0.39%

POLE # & PHASE	TYPE	LUMEN	WATTS	VD% @ SL
P24b	SNGL	13400	133	0.12%

RIGGIN AVE. STA: 69+00 – END

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — MARK HOLLOWAY — No. 81512 — STATE OF CALIFORNIA

324 S. SANTA FE, STE A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS — DRN BY: MH — CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
STREET LIGHTING & FIBER INTERCONNECT PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 26 OF 59

Know what's **below.**
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811

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POWER LINES OVERHEAD

NORTH
40' 0' 40'

SHEET NOTES

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LEGEND

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	STREET LIGHT (ARTERIAL & MAJOR COLLECTOR)
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FIXTURES

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3. *INSTALL CITY STD. DUAL MEDIAN STREETLIGHT PER DETAIL SL-5, SHEET 35.*
4. *INSTALL 3" PVC CONDUIT WITH TRACER WIRE AND PULL ROPE.*
5. *INSTALL CITY STD. TE-5 FIBER PULL BOX PER DETAIL TE-5, SHEET 35.*
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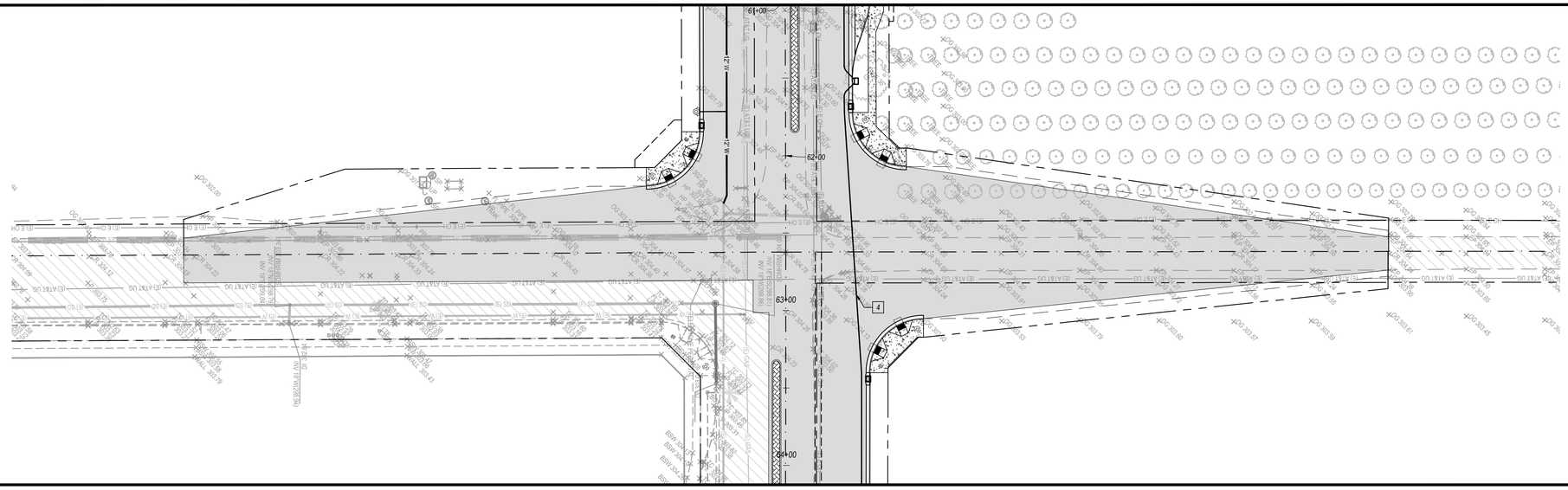
RIGGIN AVE.



SHIRK ST. STA: 5+00 – END

FIBER OPTIC CONDUIT / STREET LIGHT CONDUIT NOTES (THIS SHEET ONLY)

1. *CONTRACTOR TO INSTALL FIBER OPTIC & STREET LIGHT CONDUIT PER CITY STD. TE-9, SHEET 35 (WHERE APPLICABLE).*

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — CHRISTOPHER J. YOUNG — No. 83918 — STATE OF CALIFORNIA — CIVIL — 12-31-2022

324 S. SANTA FE, STE A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

PREPARED BY: 4CREEKS — CHK BY: KM — DRW BY: MH

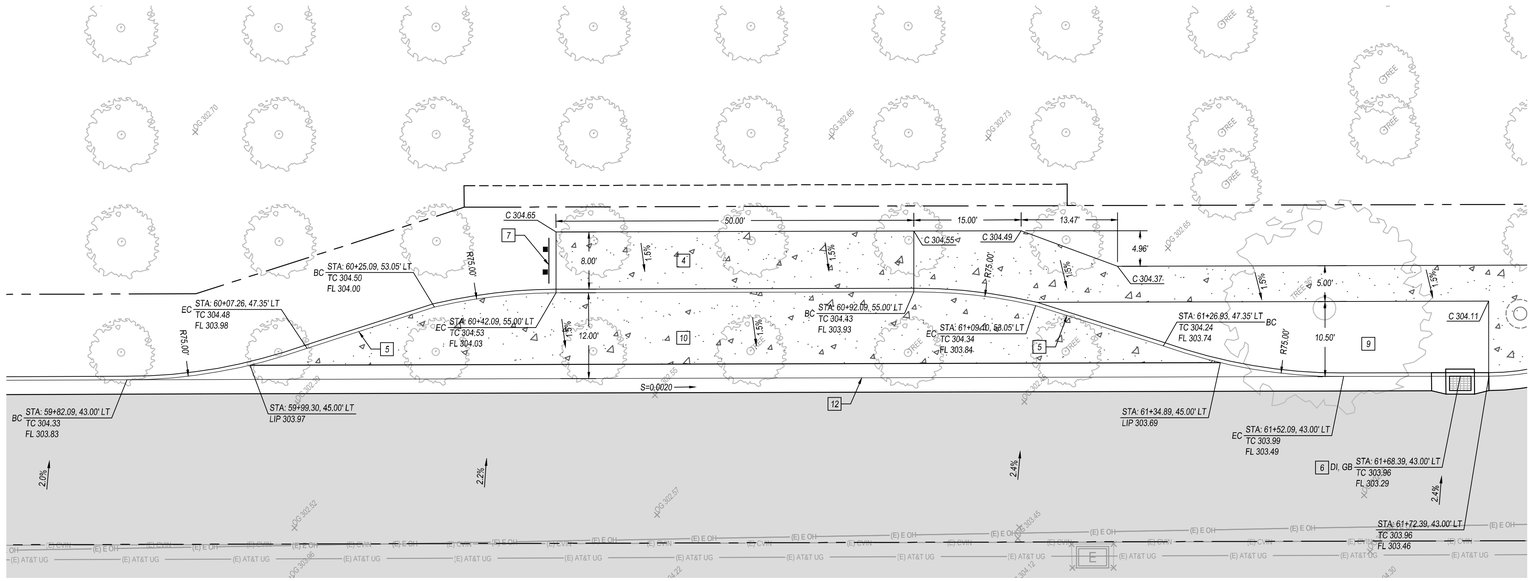
CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
STREET LIGHTING & FIBER INTERCONNECT PLAN

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 27 OF 59

Know what's **below.**
Call before you dig.

WARNING
POWER LINES OVERHEAD



NORTH
10' 0' 10'

CONSTRUCTION AND GRADING KEYNOTES

1. *GUTTER PAN SHALL NOT EXCEED 5% IN THE PATH OF TRAVEL. ASPHALT TO BE FLUSH WITH LIP AT BOTTOM OF RAMPS.*
2. *PROVIDE 4'x4' MIN. ADA LANDING, SLOPE SHALL NOT EXCEED 1.5% MAX IN ANY DIRECTION.*
3. *INSTALL CONCRETE COLD JOINT PER CITY STD. C-34*
4. *CONSTRUCT SIDEWALK PER THE DIMENSIONS SHOWN ON PLANS. SEE CITY STD. C-9.*
5. *CONSTRUCT RETAINING CURB PER CITY STD. C-8.*
6. *CONSTRUCT STORM DRAIN INLET PER CITY STD. D-12.*
7. *INSTALL TYPE I PEDESTRIAN BARRICADE PER CALTRANS STANDARD ES-7Q*
8. *CONSTRUCT DEPRESSED CURB W/ SMOOTH TRANSITION.*
9. *RE-GRADE LANDSCAPE AREAS TO MATCH NEW IMPROVEMENTS. ADJUST IRRIGATION & REPLACE LANDSCAPING IN-KIND.*
10. *CONSTRUCT BUS TURNOUT PER THE DIMENSIONS SHOWN ON THE PLANS. SEE DETAIL TR-5, SHEET 37.*
11. *CONSTRUCT COMMERCIAL DRIVE APPROACH PER THE DIMENSIONS SHOWN ON THE PLANS. SEE DETAIL C-24, SHEET 32.*
12. *CONSTRUCT V-GUTTER PER CITY STD. C-7*
13. *INSTALL TIMBER BARRICADE PER CITY STD. B-1*

GENERAL NOTES

1. *ALL CURBS AND CURB AND GUTTERS SHALL BE POURED PRIOR TO RAMPS AND SIDEWALKS, MONOLITHIC POURS WILL NOT BE ALLOWED.*
2. *CURBS AND GUTTER AT DRIVE APPROACHES SHALL BE PER CITY STD'S.*
3. *CROSS SLOPES PERPENDICULAR TO PATH OF TRAVEL ON ALL RAMPS AND SIDEWALKS TO BE 1.5% MAXIMUM*
4. *CURBS AND GUTTER AT DRIVE APPROACHES SHALL BE 8" THICK MINIMUM OR PER CITY STD'S, WHICHEVER IS THICKER.*
5. *CONTRACTOR SHALL REMOVE & DISPOSE OF ALL EXIST. CONCRETE IMPROVEMENTS NECESSARY TO INSTALL NEW IMPROVEMENTS.*
6. *ADJUST EXIST. UTILITY BOXES IN IMPROVEMENT AREAS TO FINISHED GRADE WHETHER SHOWN ON THE PLANS OR NOT.*
7. *CONTRACTOR TO DAYLIGHT GRADE TO EXIST. AT A 4:1 MAX. SLOPE.*
8. *TRAFFIC SIGNAL FOOTINGS SHOWN FOR REFERENCE. SEE TRAFFIC SIGNAL PLANS FOR MORE DETAIL.*

LEGEND

- DETECTABLE WARNING SURFACE
- PROPOSED CONCRETE
- PROPOSED ASPHALT SECTION
- EXISTING ASPHALT HATCH NOT SHOWN FOR CLARITY
- EXISTING CONCRETE

NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215
CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
BUS TURNOUT DETAILS

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 28 OF 59

BUS TURNOUT DETAIL - NORTH SIDE OF RIGGIN AVE. WEST OF SHIRK RD.

B-1

811
Know what's **below.**
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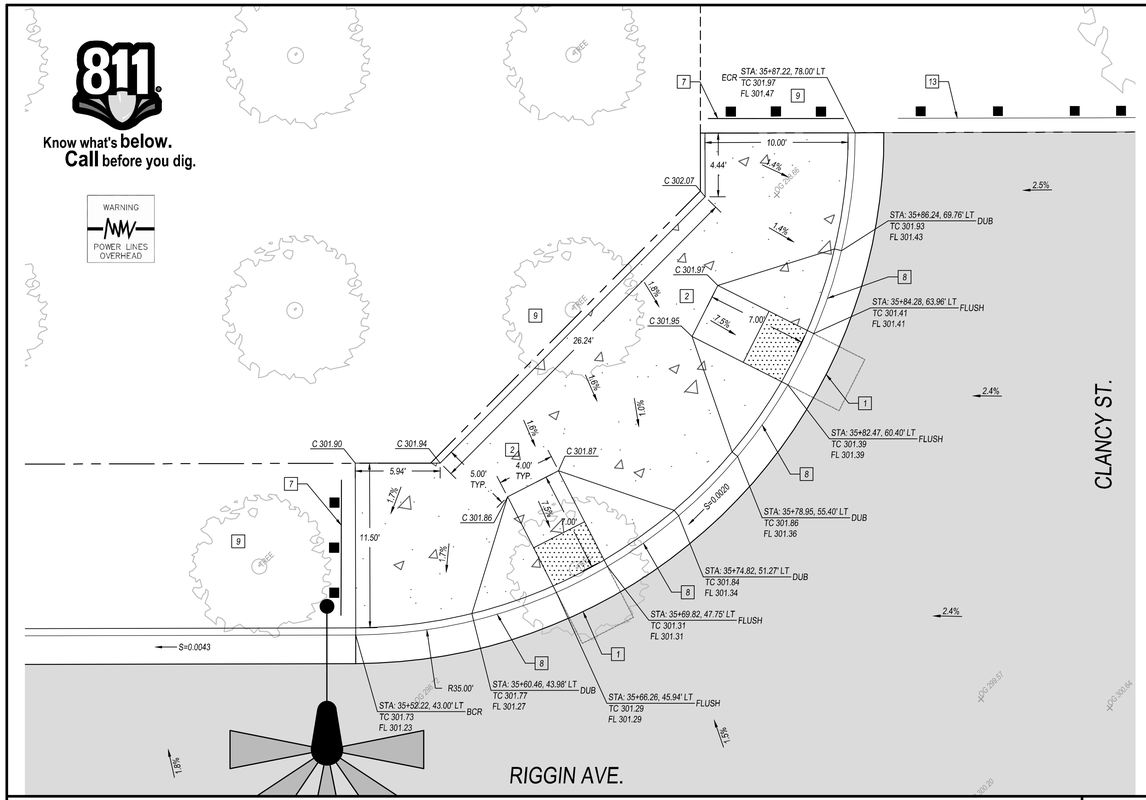
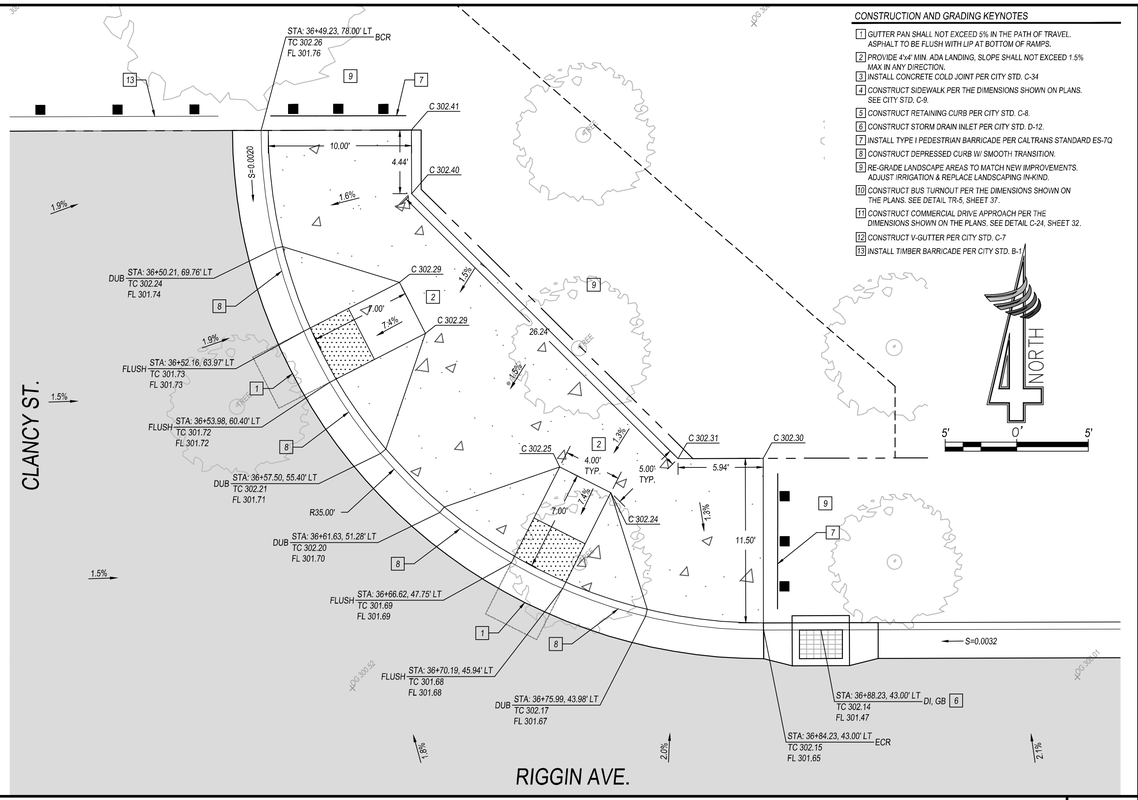
WARNING
POWER LINES OVERHEAD



RAMP DETAIL - NW CORNER OF CLANCY ST & RIGGIN AVE | R-1



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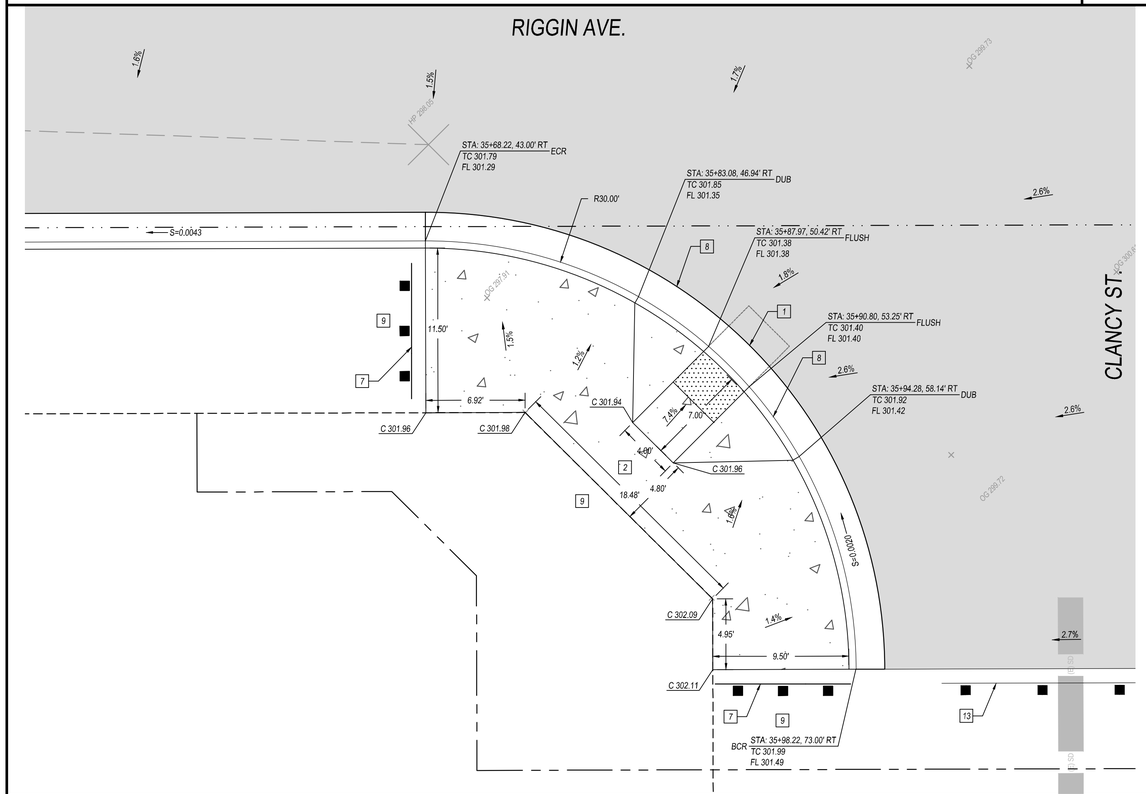
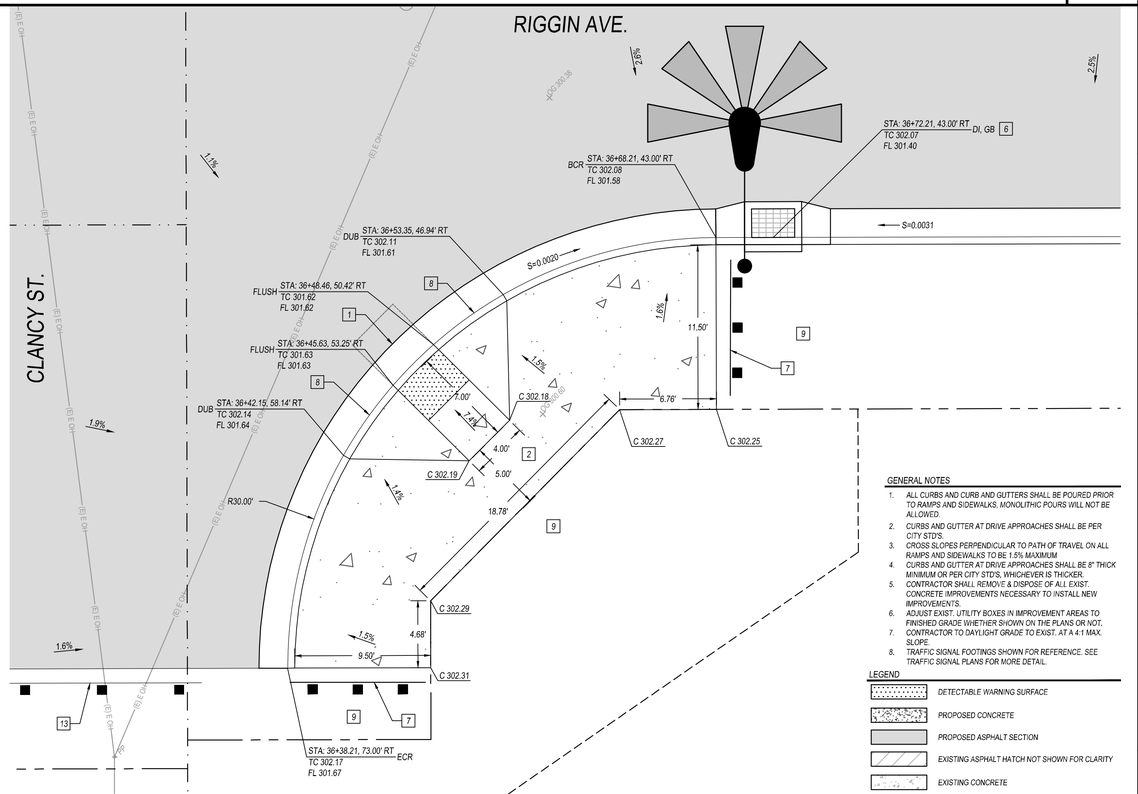
NORTH
5' 0' 5'

RAMP DETAIL - NE CORNER OF CLANCY ST & RIGGIN AVE | R-2



RAMP DETAIL - SW CORNER OF CLANCY ST & RIGGIN AVE | R-3



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LEGEND

- DETECTABLE WARNING SURFACE
- PROPOSED CONCRETE
- PROPOSED ASPHALT SECTION
- EXISTING ASPHALT HATCH NOT SHOWN FOR CLARITY
- EXISTING CONCRETE

RAMP DETAIL - SE CORNER OF CLANCY ST & RIGGIN AVE | R-4

NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215
CHK BY: KM
DRN BY: MH

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315 E. ACEQUIA AVE.
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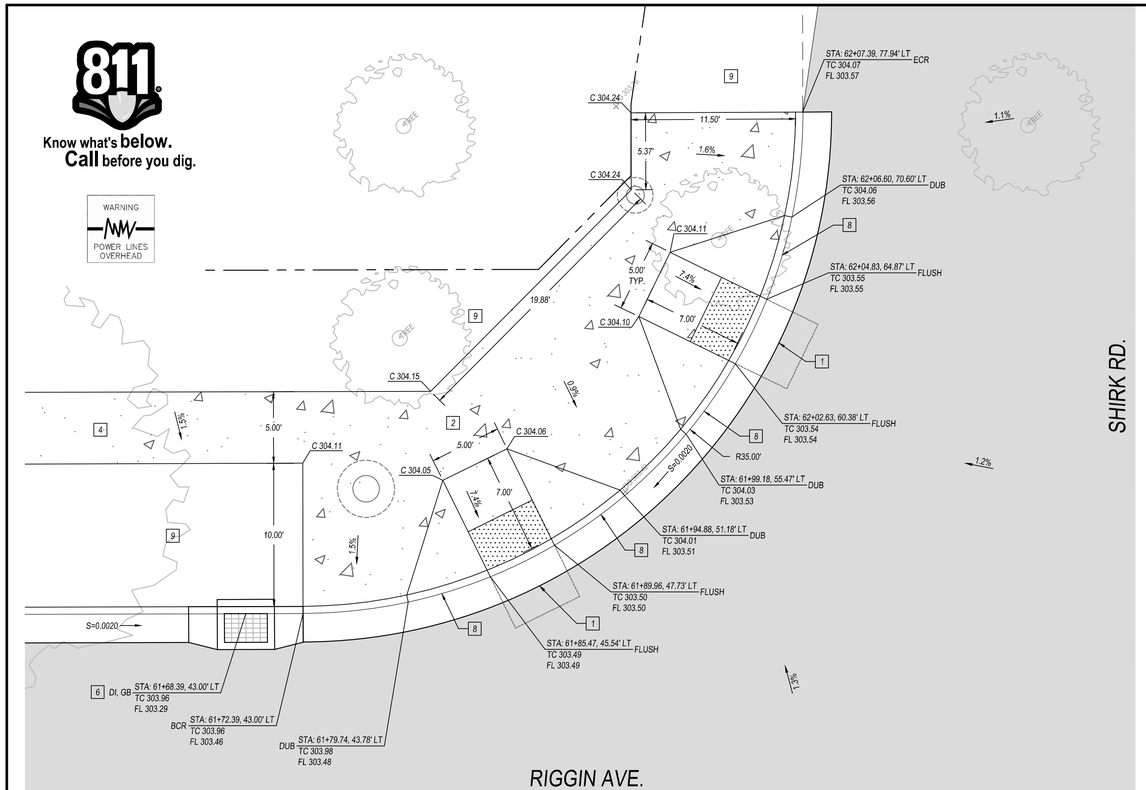
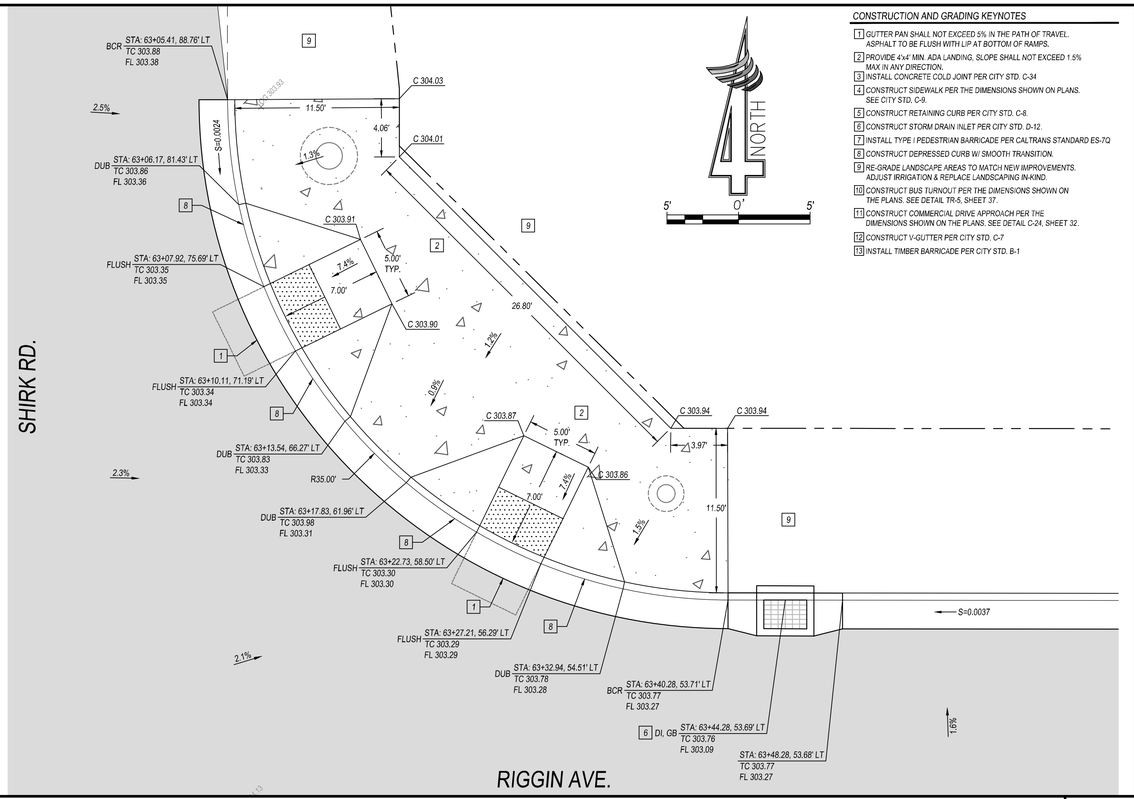
RIGGIN AVENUE WIDENING & IMPROVEMENTS
RAMP DETAILS

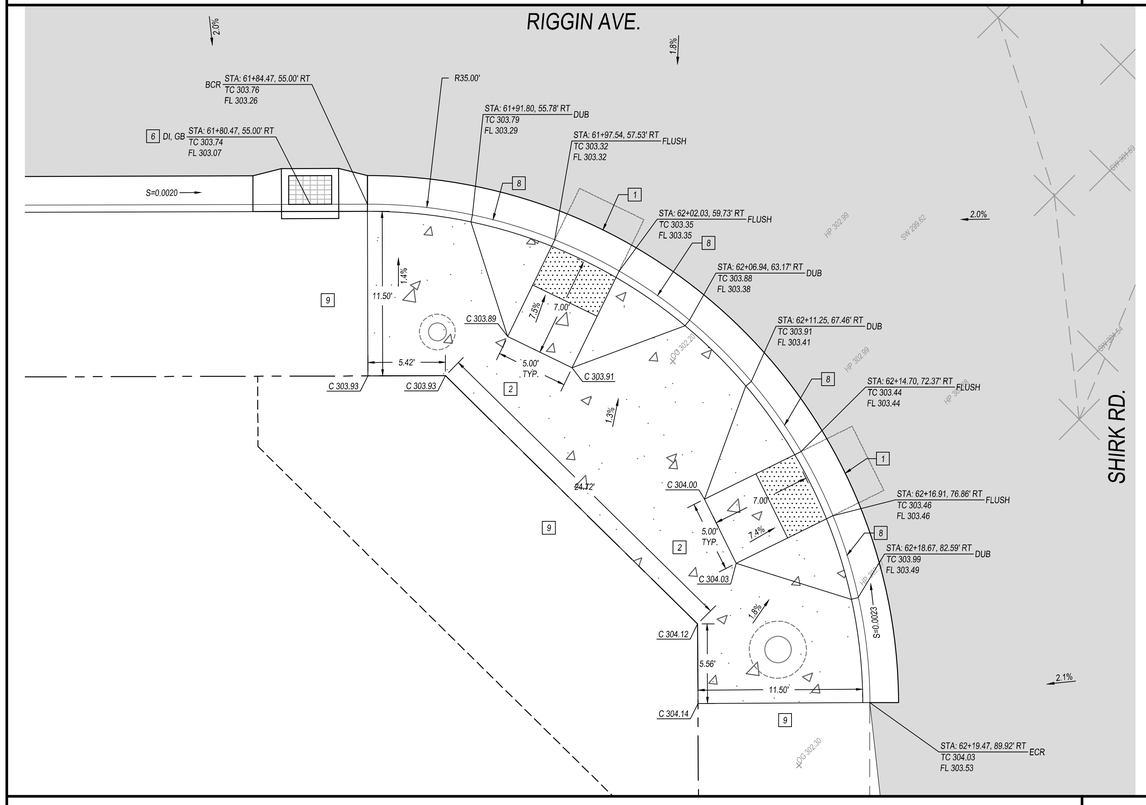
PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 29 OF 59



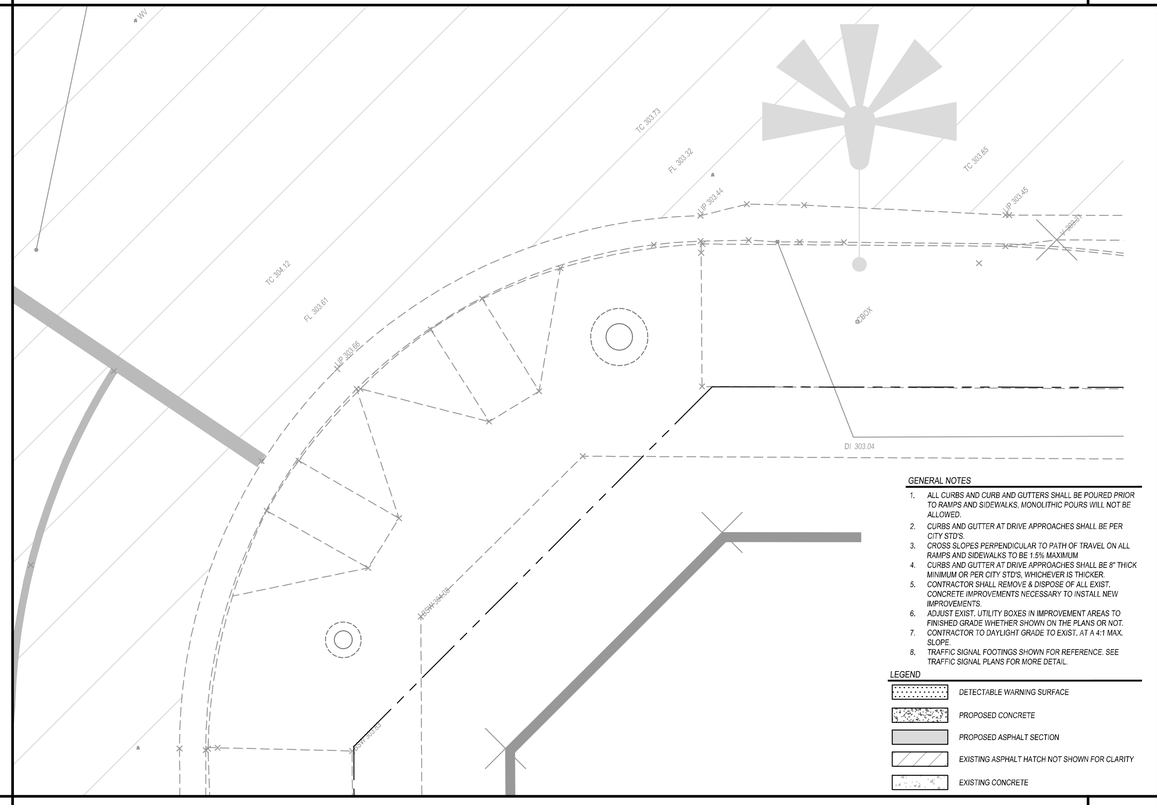
RAMP DETAIL - NW CORNER OF SHIRK RD & RIGGIN AVE | R-5



RAMP DETAIL - NE CORNER OF SHIRK RD & RIGGIN AVE | R-6



RAMP DETAIL - SW CORNER OF SHIRK RD & RIGGIN AVE | R-7



CONSTRUCTION AND GRADING KEYNOTES

1. GUTTER PAN SHALL NOT EXCEED 5% IN THE PATH OF TRAVEL. ASPHALT TO BE FLUSH WITH LIP AT BOTTOM OF RAMPS.
2. PROVIDE 4'x4' MIN. ADA LANDING, SLOPE SHALL NOT EXCEED 1.5% MAX IN ANY DIRECTION.
3. INSTALL CONCRETE COLD JOINT PER CITY STD. C-34
4. CONSTRUCT SIDEWALK PER THE DIMENSIONS SHOWN ON PLANS. SEE CITY STD. C-9.
5. CONSTRUCT RETAINING CURB PER CITY STD. C-6.
6. CONSTRUCT STORM DRAIN INLET PER CITY STD. D-12.
7. INSTALL TYPE I PEDESTRIAN BARRICADE PER CALTRANS STANDARD ES-7Q
8. CONSTRUCT DEPRESSED CURB W/ SMOOTH TRANSITION.
9. RE-GRADE LANDSCAPE AREAS TO MATCH NEW IMPROVEMENTS. ADJUST IRRIGATION & REPLACE LANDSCAPING IN-KIND.
10. CONSTRUCT BUS TURNOUT PER THE DIMENSIONS SHOWN ON THE PLANS. SEE DETAIL TR-5, SHEET 37.
11. CONSTRUCT COMMERCIAL DRIVE APPROACH PER THE DIMENSIONS SHOWN ON THE PLANS. SEE DETAIL C-24, SHEET 32.
12. CONSTRUCT V-GUTTER PER CITY STD. C-7
13. INSTALL TIMBER BARRICADE PER CITY STD. B-1

GENERAL NOTES

1. ALL CURBS AND CURB AND GUTTERS SHALL BE POURED PRIOR TO RAMPS AND SIDEWALKS, MONOLITHIC POURS WILL NOT BE ALLOWED.
2. CURBS AND GUTTER AT DRIVE APPROACHES SHALL BE PER CITY STD'S.
3. CROSS SLOPES PERPENDICULAR TO PATH OF TRAVEL ON ALL RAMPS AND SIDEWALKS TO BE 1.5% MAXIMUM.
4. CURBS AND GUTTER AT DRIVE APPROACHES SHALL BE 9" THICK MINIMUM OR PER CITY STD'S, WHICHEVER IS THICKER.
5. CONTRACTOR SHALL REMOVE & DISPOSE OF ALL EXIST. CONCRETE IMPROVEMENTS NECESSARY TO INSTALL NEW IMPROVEMENTS.
6. ADJUST EXIST. UTILITY BOXES IN IMPROVEMENT AREAS TO FINISHED GRADE WHETHER SHOWN ON THE PLANS OR NOT.
7. CONTRACTOR TO DAYLIGHT GRADE TO EXIST. AT A 4:1 MAX. SLOPE.
8. TRAFFIC SIGNAL FOOTINGS SHOWN FOR REFERENCE. SEE TRAFFIC SIGNAL PLANS FOR MORE DETAIL.

LEGEND

- DETECTABLE WARNING SURFACE
- PROPOSED CONCRETE
- PROPOSED ASPHALT SECTION
- EXISTING ASPHALT HATCH NOT SHOWN FOR CLARITY
- EXISTING CONCRETE

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER — MARK D. KIMBALL — No. 72613 — STATE OF CALIFORNIA — REGISTERED — EXPIRES 12/31/2023

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215
CHK BY: KM
DRW BY: MH

VISALIA Founded 1852

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS

RAMP DETAILS

PROJ. NO. 20205
DATE:2/1/22
DESIGN BY: KM | DRAWN BY:MH
SCALE: AS SHOWN
SHEET 30OF 59

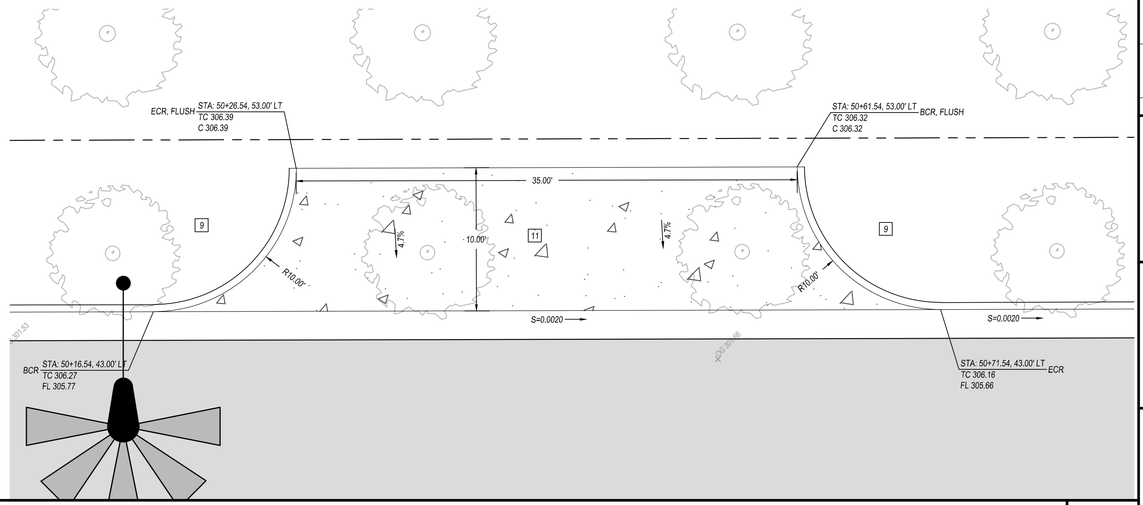
Know what's **below.**
Call before you dig.

WARNING
POWER LINES OVERHEAD

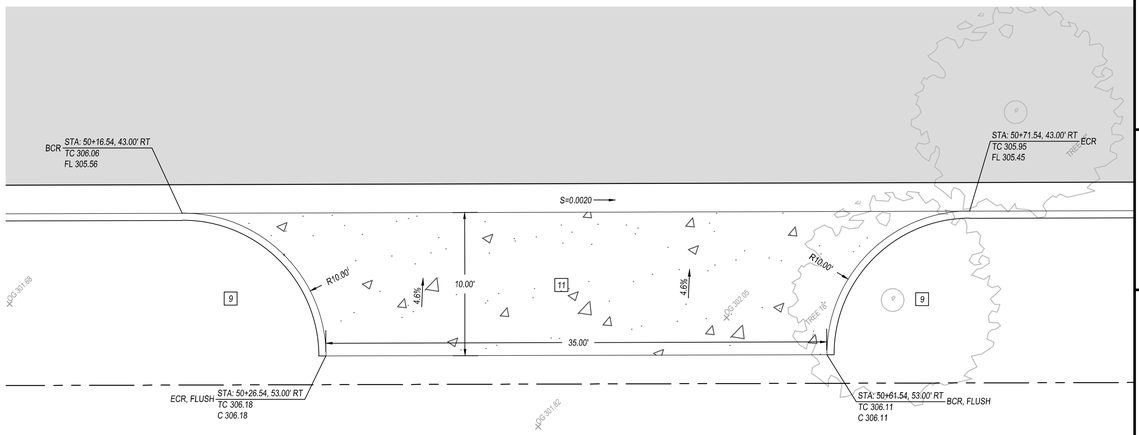
NORTH
5' 0' 5'

CONSTRUCTION AND GRADING KEYNOTES

1. GUTTER PAN SHALL NOT EXCEED 5% IN THE PATH OF TRAVEL. ASPHALT TO BE FLUSH WITH LIP AT BOTTOM OF RAMPS.
2. PROVIDE 4'x4' MIN. ADA LANDING, SLOPE SHALL NOT EXCEED 1.5% MAX IN ANY DIRECTION.
3. INSTALL CONCRETE COLD JOINT PER CITY STD. C-34
4. CONSTRUCT SIDEWALK PER THE DIMENSIONS SHOWN ON PLANS. SEE CITY STD. C-9.
5. CONSTRUCT RETAINING CURB PER CITY STD. C-8.
6. CONSTRUCT STORM DRAIN INLET PER CITY STD. D-12.
7. INSTALL TYPE I PEDESTRIAN BARRICADE PER CALTRANS STANDARD ES-7Q
8. CONSTRUCT DEPRESSED CURB W/ SMOOTH TRANSITION.
9. RE-GRADE LANDSCAPE AREAS TO MATCH NEW IMPROVEMENTS. ADJUST IRRIGATION & REPLACE LANDSCAPING IN-KIND.
10. CONSTRUCT BUS TURNOUT PER THE DIMENSIONS SHOWN ON THE PLANS. SEE DETAIL TR-5, SHEET 37.
11. CONSTRUCT COMMERCIAL DRIVE APPROACH PER THE DIMENSIONS SHOWN ON THE PLANS. SEE DETAIL C-24, SHEET 32.
12. CONSTRUCT V-GUTTER PER CITY STD. C-7
13. INSTALL TIMBER BARRICADE PER CITY STD. B-1



DRIVE APPROACH DETAIL @ STA. 50+44 NORTH SIDE OF RIGGIN AVE. DA-1



GENERAL NOTES

1. ALL CURBS AND CURB AND GUTTERS SHALL BE POURED PRIOR TO RAMPS AND SIDEWALKS, MONOLITHIC POURS WILL NOT BE ALLOWED.
2. CURBS AND GUTTER AT DRIVE APPROACHES SHALL BE PER CITY STD'S.
3. CROSS SLOPES PERPENDICULAR TO PATH OF TRAVEL ON ALL RAMPS AND SIDEWALKS TO BE 1.5% MAXIMUM
4. CURBS AND GUTTER AT DRIVE APPROACHES SHALL BE 8" THICK MINIMUM OR PER CITY STD'S, WHICHEVER IS THICKER.
5. CONTRACTOR SHALL REMOVE & DISPOSE OF ALL EXIST. CONCRETE IMPROVEMENTS NECESSARY TO INSTALL NEW IMPROVEMENTS.
6. ADJUST EXIST. UTILITY BOXES IN IMPROVEMENT AREAS TO FINISHED GRADE WHETHER SHOWN ON THE PLANS OR NOT.
7. CONTRACTOR TO DAYLIGHT GRADE TO EXIST. AT A 4:1 MAX. SLOPE.
8. TRAFFIC SIGNAL FOOTINGS SHOWN FOR REFERENCE. SEE TRAFFIC SIGNAL PLANS FOR MORE DETAIL.

LEGEND

- DETECTABLE WARNING SURFACE
- PROPOSED CONCRETE
- PROPOSED ASPHALT SECTION
- EXISTING ASPHALT HATCH NOT SHOWN FOR CLARITY
- EXISTING CONCRETE

DRIVE APPROACH DETAIL @ STA. 50+44 SOUTH SIDE OF RIGGIN AVE. DA-2

NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7293
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

DRW BY: MH | CHK BY: KM

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS
DRIVE APPROACH DETAILS

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 31 OF 59

GENERAL CONCRETE NOTES

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE UNLESS OTHERWISE SPECIFIED.
2. CLASS 2 CONCRETE SHALL CONTAIN NOT LESS THAN 590 POUNDS OF PORTLAND CEMENT PER CUBIC YARD WITH 1 INCH AGGREGATE. 5 INCH MAXIMUM SLUMP. 3000 P.S.I. AT 28 DAYS.
3. CLASS 3 CONCRETE SHALL CONTAIN NOT LESS THAN 505 POUNDS OF PORTLAND CEMENT PER CUBIC YARD WITH 1 INCH AGGREGATE. 5 INCH MAXIMUM SLUMP. 2500 P.S.I. AT 28 DAYS.
4. CLASS 4 CONCRETE SHALL CONTAIN NOT LESS THAN 420 POUNDS OF PORTLAND CEMENT PER CUBIC YARD WITH 1 INCH AGGREGATE. 5 INCH MAXIMUM SLUMP. 2500 P.S.I. AT 28 DAYS.
5. WHEN MAXIMUM DAYTIME TEMPERATURE EXCEEDS 50° F. ALL NEWLY PLACED CONCRETE SHALL BE SPRAYED UNIFORMLY WITH A CURING COMPOUND. CURING COMPOUND SHALL BE APPLIED AT A NOMINAL RATE OF ONE GALLON PER 150 SQUARE FEET, UNLESS OTHERWISE SPECIFIED.
6. ALL WORK CONSTRUCTED BY THESE STANDARDS SHALL BE IN COMPLIANCE WITH ALL CURRENT ADA REGULATIONS.
7. WHERE REBAR IS USED, CONTRACTOR SHALL INSTALL WIRE TIES SECURELY AT ALL REBAR CROSSINGS. CONCRETE BLOCK OR CHAIRS AS APPROVED BY THE CITY ENGINEER SHALL BE INSTALLED PRIOR TO CONCRETE INSTALLATION TO KEEP REBAR IN THE PROPER LOCATION.

CURBS AND GUTTERS

1. ALL CURB AND GUTTER, VEE GUTTER, MEDIAN CURB AND LANDSCAPE CURB SHALL BE CLASS 3 CONCRETE.
2. BARRIER TYPE CURB AND GUTTER SHALL HAVE A MINIMUM GRADIENT OF 0.20 FEET PER 100 FEET OR AS APPROVED BY THE CITY ENGINEER.
3. BARRIER TYPE CURB AND GUTTER ON THE CURVE OF CUL-DE-SACS AND STREET BULBS SHALL HAVE A MINIMUM GRADIENT OF 0.35 FEET PER 100 FEET OR AS APPROVED BY THE CITY ENGINEER.
4. ROLL TYPE CURB AND GUTTER SHALL HAVE A MINIMUM GRADIENT OF 0.35 FEET PER 100 FEET OR AS APPROVED BY THE CITY ENGINEER.
5. VEE GUTTER SHALL HAVE A MINIMUM GRADIENT OF 0.25 FEET PER 100 FEET OR AS APPROVED BY THE CITY ENGINEER.
6. ALL CURB AND GUTTER, VEE GUTTER, MEDIAN CURB AND LANDSCAPE CURB SHALL BE PLACED ON 6 INCH MOIST AND COMPACTED BASE MATERIALS. 95 PERCENT MINIMUM RELATIVE COMPACTION.
7. ALL CURB AND GUTTER, VEE GUTTER, MEDIAN CURB AND LANDSCAPE CURB SHALL HAVE A LIGHT BROOM FINISH.
8. ALL CURB AND GUTTER AND VEE GUTTER SHALL HAVE WEAKENED PLANE JOINTS CONSTRUCTED AT 15 FOOT CENTERS. MEDIAN CURB AND LANDSCAPE CURB SHALL HAVE WEAKENED PLANE JOINTS CONSTRUCTED AT 8 FOOT CENTERS. WEAKENED PLANE JOINTS SHALL BE A MINIMUM OF 1-1/2 INCHES IN DEPTH AND SHALL BE FINISHED WITH A SCORING TOOL LEAVING THE EDGES ROUNDED.
9. ALL EXPOSED SURFACES OF CURB AND GUTTER, VEE GUTTER, MEDIAN CURB AND LANDSCAPE CURB SHALL NOT VARY IN EXCESS OF 0.02 FEET WHEN A 10 FOOT STRAIGHT EDGE IS PLACED ON THE SURFACE, EXCEPT AT GRADE CHANGES OR CURVES.
10. ALL CURB AND GUTTER AND VEE GUTTER SHALL BE WATER TESTED FOR FLOW.
11. ALL CURB AND GUTTER, VEE GUTTER, MEDIAN CURB AND LANDSCAPE CURB SHALL BE CURED IN ACCORDANCE WITH THE PROVISIONS IN THE GENERAL CONCRETE NOTES IN THESE IMPROVEMENT STANDARDS.

APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

CONCRETE SPECIFICATIONS | REVISIONS 07/19/16 BK 2016 | C–1

CONCRETE SPECIFICATIONS 1 | C-1

SIDEWALKS AND RAMPS

1. ALL SIDEWALKS AND RAMPS SHALL BE CLASS 3 CONCRETE.
2. SIDEWALKS AND RAMPS SHALL BE PLACED ON 6 INCH MOIST AND COMPACTED BASE MATERIALS. 90 PERCENT RELATIVE COMPACTION UNDER SIDEWALKS. 95 PERCENT RELATIVE COMPACTION UNDER RAMPS AND SIDEWALKS AT CURB RETURNS.
3. SIDEWALKS AND RAMPS SHALL BE STEEL TROWELED AND HAVE A LIGHT BROOM FINISH UNLESS OTHERWISE NOTED. RAMPS SHALL HAVE A HEAVY BROOM FINISH ACROSS THE SLOPE OF THE RAMP.
4. SIDEWALKS AND RAMPS SHALL HAVE WEAKENED PLANE JOINTS CONSTRUCTED AT 15 FOOT CENTERS AND WHERE SHOWN IN THESE IMPROVEMENT STANDARDS. WEAKENED PLANE JOINTS SHALL BE A MINIMUM OF 1 INCH IN DEPTH AND SHALL BE FINISHED WITH A SCORING TOOL LEAVING THE EDGES ROUNDED.
5. ESTABLISHED SIDEWALK PATTERN IN BLOCK SHALL BE MATCHED.
6. SPECIAL SIDEWALK DESIGNS AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY ENGINEER.
7. SIDEWALK INSTALLED IN INFILL OR EXISTING AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.
8. ALL SIDEWALKS AND RAMPS SHALL BE CURED IN ACCORDANCE WITH THE PROVISIONS IN THE GENERAL CONCRETE NOTES OF THESE IMPROVEMENT STANDARDS.
9. DETECTABLE WARNING SURFACES SHALL BE INSTALLED PER THESE IMPROVEMENT STANDARDS AND AS REQUIRED BY THE CITY ENGINEER.

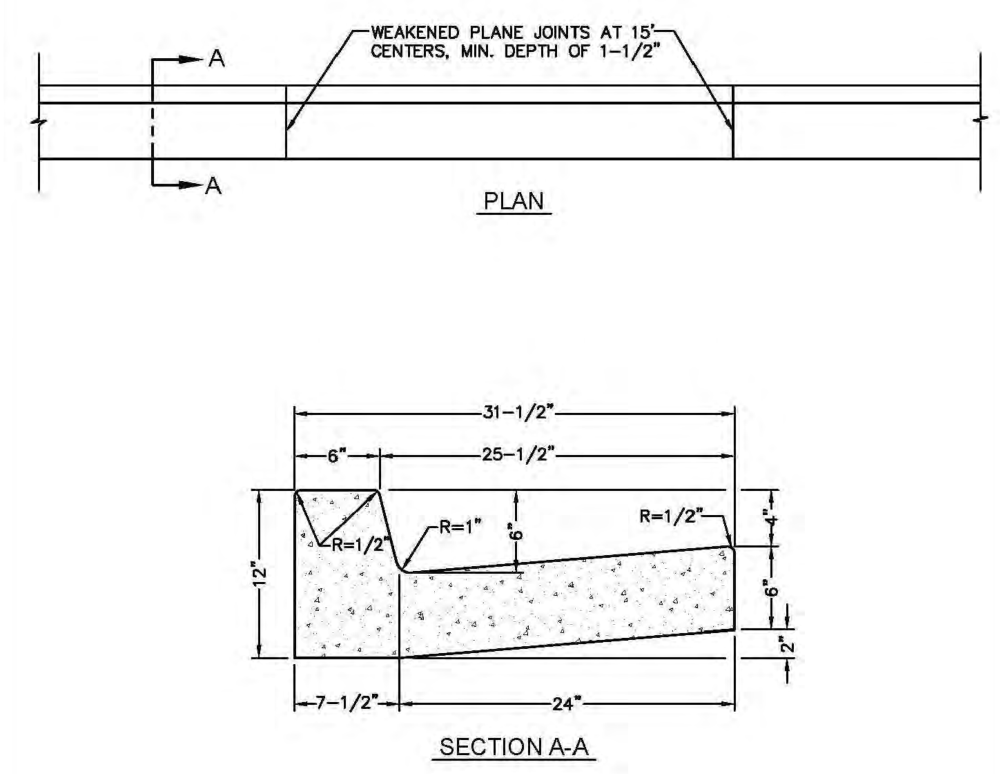
DRIVE APPROACHES

1. ALL DRIVE APPROACHES SHALL BE CLASS 3 CONCRETE UNLESS OTHERWISE NOTED.
2. SINGLE FAMILY RESIDENTIAL DRIVE APPROACHES SHALL BE PLACED ON 6 INCH MOIST AND COMPACTED BASE MATERIALS. 95 PERCENT RELATIVE COMPACTION.
3. MULTI-FAMILY RESIDENTIAL, OFFICE AND COMMERCIAL DRIVE APPROACHES SHALL BE PLACED ON 6 INCH MOIST AND COMPACTED BASE MATERIALS. 95 PERCENT RELATIVE COMPACTION.
4. MAJOR COMMERCIAL DRIVE APPROACHES SHALL BE PLACED ON 6 INCH MOIST AND COMPACTED CLASS 2 AGGREGATE BASE OVER 6 INCH MOIST AND COMPACTED BASE MATERIALS. 95 PERCENT RELATIVE COMPACTION.
5. DRIVE APPROACHES SHALL BE STEEL TROWELED AND HAVE A LIGHT BROOM FINISH.
6. DRIVE APPROACHES SHALL HAVE A WEAKENED PLANE JOINT CONSTRUCTED AT EACH EDGE AND AT THE CENTERLINE. WEAKENED PLANE JOINTS SHALL BE A MINIMUM OF 1-1/2 INCH IN DEPTH AND SHALL BE FINISHED WITH A SCORING TOOL LEAVING THE EDGES ROUNDED.
7. NOT MORE THAN 50 PERCENT OF PROPERTY FRONTAGE SHALL BE USED AS DRIVE APPROACH.
8. DRIVE APPROACHES ON STATE ROUTES ARE SUBJECT TO APPROVAL BY CALTRANS.
9. ALL EXPOSED SURFACES OF DRIVE APPROACHES AND FLOW LINES SHALL NOT VARY IN EXCESS OF 0.02 FEET WHEN A 10 FOOT STRAIGHT EDGE IS PLACED ON THE SURFACE, EXCEPT AT GRADE CHANGES OR CURVES.
10. ALL DRIVE APPROACHES SHALL BE CURED IN ACCORDANCE WITH THE PROVISIONS IN THE GENERAL CONCRETE NOTES OF THESE IMPROVEMENT STANDARDS.

APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

CONCRETE SPECIFICATIONS | REVISIONS 06/14/13 BK 2016 | C–2

CONCRETE SPECIFICATIONS 2 | C-2



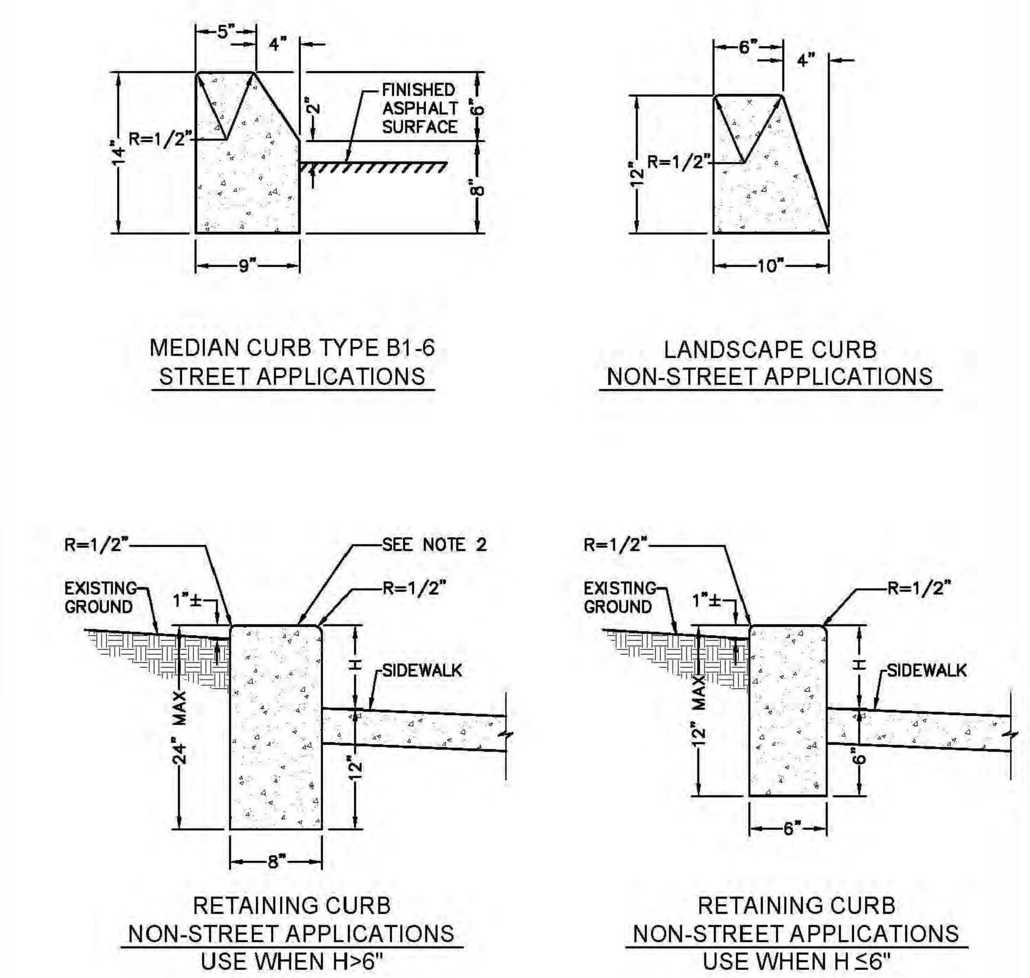
NOTES:

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE.
2. A WEAKENED PLANE JOINT OR COLD JOINT SHALL BE INSTALLED AT THE END OF CURB RETURNS AND AT THE CENTERLINE OF PROPOSED DRIVE APPROACHES.
3. CALTRANS FACILITIES REQUIRE STATE STANDARD CURB AND GUTTER.
4. WHERE ADA ACCESSIBLE PATH CROSSES GUTTER PAN, SLOPE IN THE DIRECTION OF TRAVEL SHALL BE 4% MININMUM AND 5% MAXIMUM.

APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

BARRIER CURB AND GUTTER TYPE A2–6 | REVISIONS 06/30/16 BK 2016 | C–4

BARRIER CURB & GUTTER | C-4



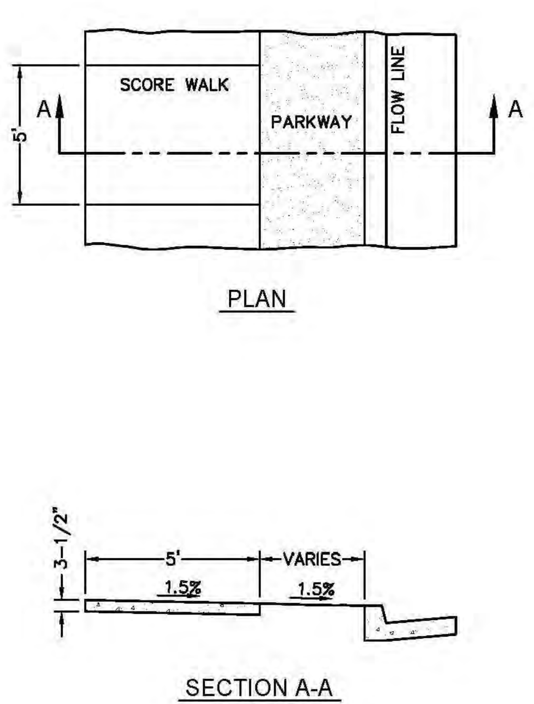
NOTES:

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE.
2. REBAR SHALL BE USED AT THE DISCRETION OF THE CITY ENGINEER.

APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

MEDIAN CURB TYPE B1–6, RETAINING CURB AND LANDSCAPE CURB | REVISIONS 06/14/13 BK 2016 | C–8

MEDIAN CURB | C-8



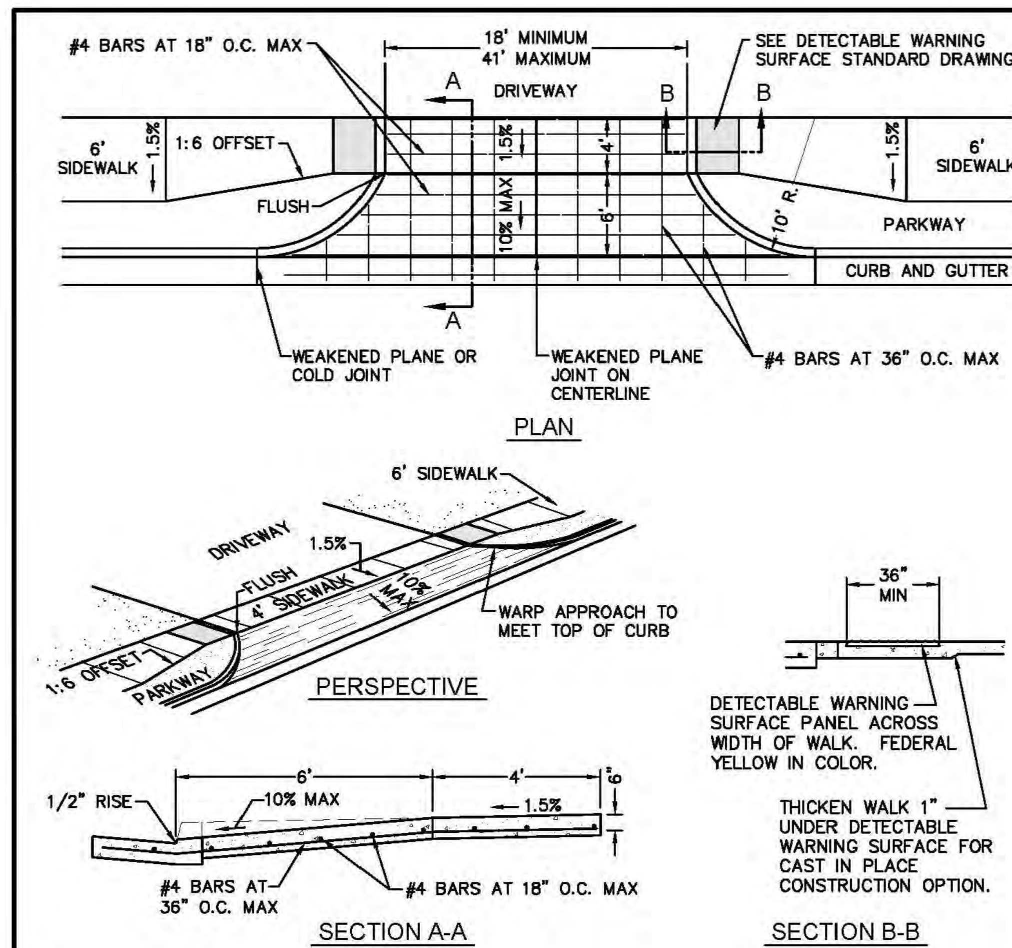
NOTES:

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE.

APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

SIDEWALK – RESIDENTIAL WITH PARKWAY | REVISIONS 06/30/16 BK 2016 | C–9

SIDEWALKS - RESIDENTIAL W/ PARKWAY | C-9



NOTES:

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE.
2. ON COLLECTOR AND ARTERIAL STREETS, THE MINIMUM DRIVE APPROACH WIDTH SHALL BE 21' FOR ONE-WAY DRIVE APPROACHES AND 36' FOR TWO-WAY DRIVE APPROACHES, OR AS APPROVED BY CITY ENGINEER.
3. REBAR SHALL BE DEFORMED STEEL BARS AND SHALL BE GRADE 40 MINIMUM. REBAR SHALL BE FREE OF RUST OR DIRT AND SHALL BE THOROUGHLY CLEANED BEFORE PLACEMENT.
4. REBAR SHALL HAVE A MINIMUM OF 2" OF CLEAR COVERAGE.
5. NOT MORE THAN 50% OF PROPERTY FRONTAGE SHALL BE USED AS DRIVE APPROACH.
6. WIDTH AND LOCATION OF DRIVE APPROACHES ON STATE ROUTES IS SUBJECT TO APPROVAL BY CALTRANS.

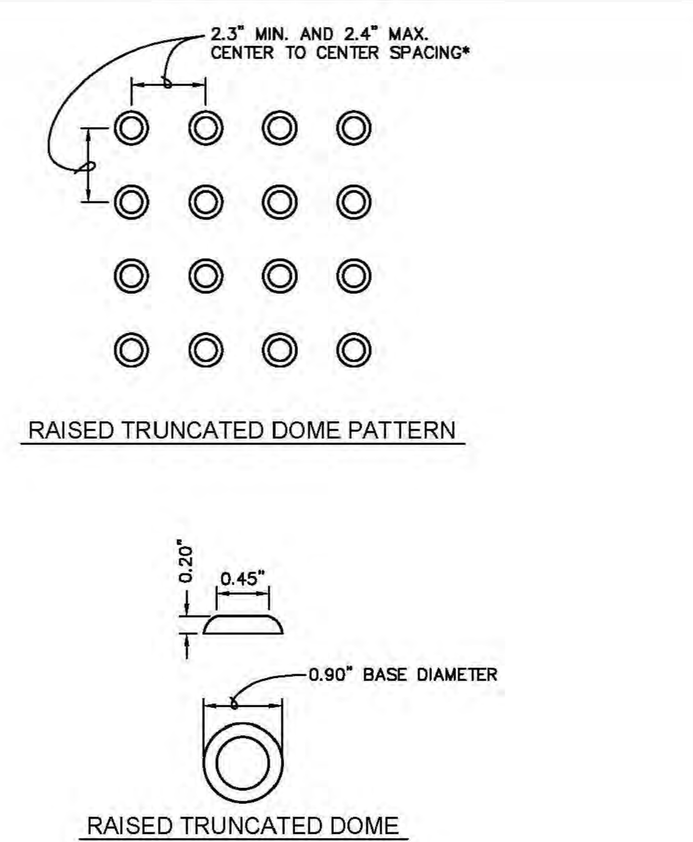
APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

OFFICE/COMMERCIAL DRIVE APPROACH (ALTERNATIVE – WITH CURB RETURNS) | REVISIONS 09/15/16 BK 2016 | C–24

COMMERCIAL DRIVE APPROACH | C-24

NOTE:

* WHERE INSTALLED IN A RADIAL PATTERN, TRUNCATED DOMES SHALL HAVE A CENTER TO CENTER SPACING OF 1.6" MINIMUM TO 2.4" MAXIMUM OR AS INDICATED PER CURRENT CBC.



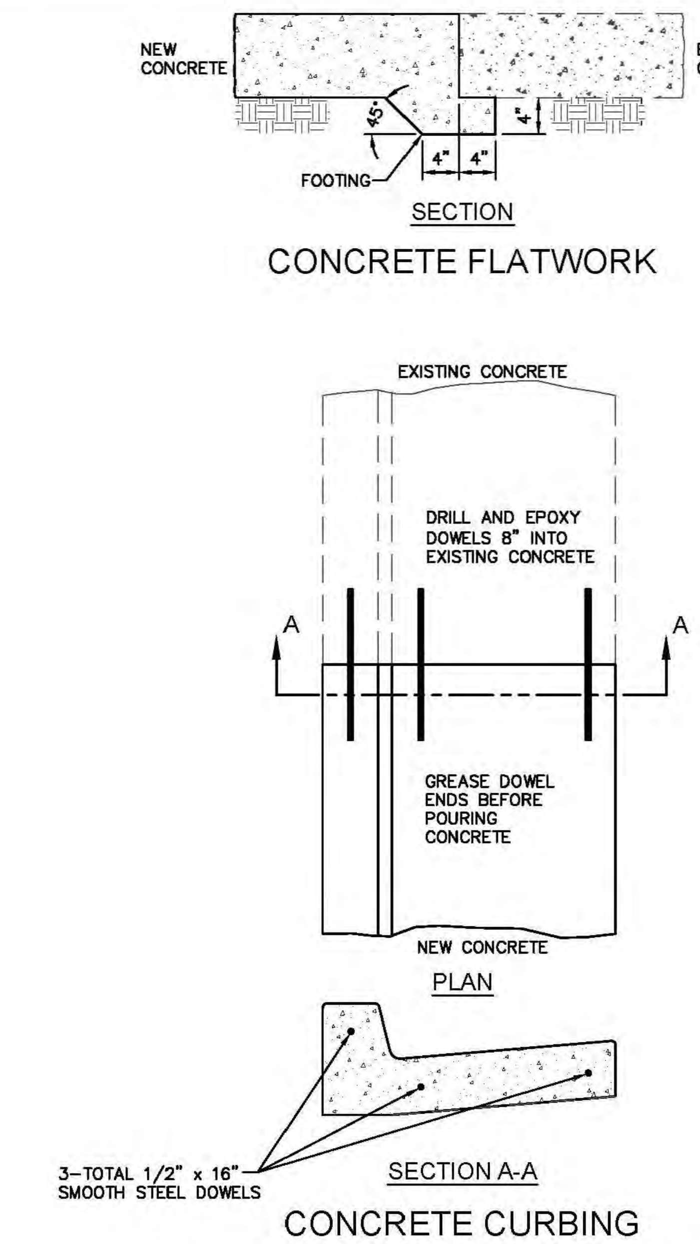
NOTES:

1. DETECTABLE WARNING SURFACE SHALL BE INSTALLED AT THE BOTTOM OF ALL CURB RAMPS.
2. DETECTABLE WARNING SHALL BE INSTALLED SO THAT IT BUTTS UP FLUSH AGAINST THE BACK OF ADJACENT CURB. WHERE CURBS ARE ON A CURVE, THE BACK OF CURB SHALL BE STRAIGHTENED AT THE DETECTABLE WARNING LOCATION SO THE WARNING BUTTS UP FLUSH AGAINST THE BACK OF CURB.
3. DETECTABLE WARNING SURFACE SHALL BE THE FULL WIDTH OF RAMP AND SHALL BE A MINIMUM OF 36" IN DEPTH.
4. DETECTABLE WARNING SURFACE SHALL BE PREMIXED FEDERAL YELLOW COLORED AND SHALL BE AN AUTHORIZED MATERIAL FROM THE CITY OF VISALIA DETECTABLE WARNING SURFACE AUTHORIZED MATERIAL LIST.
5. IN RETROFIT TYPE SITUATIONS ON EXISTING SURFACES THE CITY WILL ALLOW RETROFIT TYPE WARNING PANELS. RETROFIT PANEL MATERIALS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR ACCEPTANCE PRIOR TO CONSTRUCTION. PANELS SHALL BE GLUED AND BOLTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. BOTTOM OF PANELS SHALL BE FLUSH AGAINST THE ADJACENT CONCRETE SURFACE.

APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

DETECTABLE WARNING SURFACE DETAIL | REVISIONS 09/15/16 BK 2016 | C–33

DETECTABLE WARNING SURFACE | C-33



APPROVED BY: [signature] CITY ENGINEER R.P.E. 81734 09/16/16 DATE | CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

CONCRETE COLD JOINTS | REVISIONS 10/23/12 BK 2016 | C–34

CONCRETE COLD JOINTS | C-34

NO.	DATE	DESCRIPTION

PREPARED BY: 4CREEKS

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

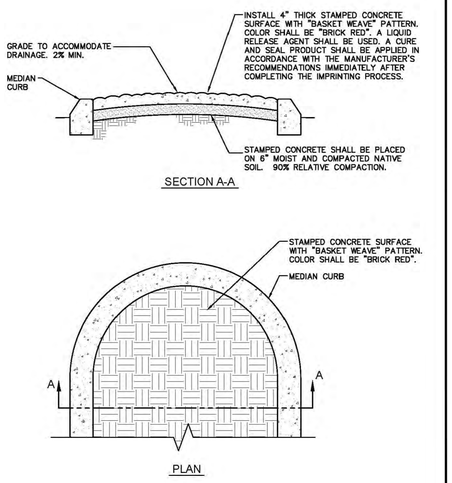
CHK BY: KM
DRW BY: MH

VISALIA Founded 1852

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
CIVIL DETAILS

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 32 OF 59



NOTES:

1. WHEN MATCHING AN EXISTING COBBLESTONE MEDIAN, "RIVER ROCK" PATTERN WITH "COBBLESTONE GRAY" COLOR AND A LIQUID RELEASE AGENT SHALL BE USED.

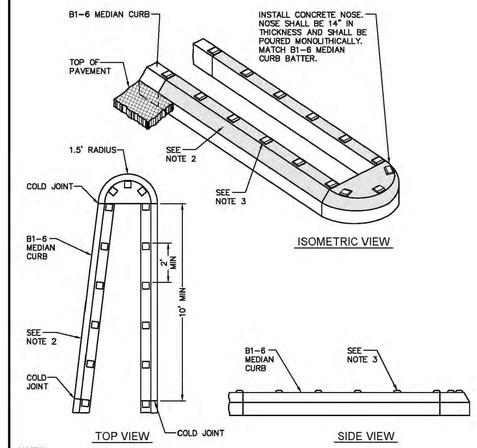
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

STAMPED CONCRETE MEDIAN

REVISIONS 07/19/16 BK 2016

C-35



NOTES:

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE.
2. THE TOP AND FACE OF THE CURB SHALL BE PAINTED WITH WHITE OR YELLOW WATERBORNE PAINT AND APPLY GLASS BEADS FOR RETROREFLECTIVITY IN ACCORDANCE TO CITY OF VISALIA STANDARD SPECIFICATIONS.
3. INSTALL TYPE G OR TYPE D RAISED PAVEMENT MARKERS PER CALTRANS STANDARD SPECIFICATIONS SECTION 81-3.02C. THE RAISED PAVEMENT MARKERS SHALL BE ATTACHED TO THE TOP OF THE CURB USING ADHESIVES PER CALTRANS STANDARD SPECIFICATIONS SECTIONS 81-3.020 AND 81-3.02E.

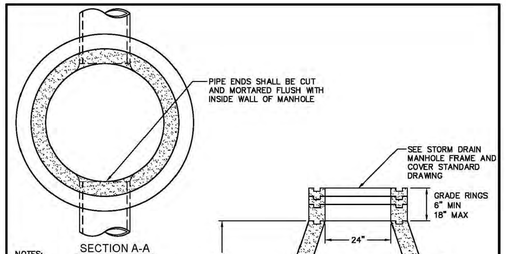
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

MEDIAN NOSE DETAIL

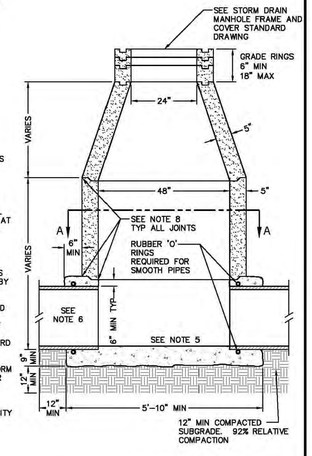
REVISIONS 09/08/16 BK 2016

C-36



NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MANHOLE PIPE, CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AS PER ASTM C478.
3. JOINTS SHALL BE RUBBER GASKET AS PER ASTM C443 OR JOINTS SHALL BE CONSTRUCTED WITH MASTIC (KENT SEAL NO. 2 OR EQUAL) AS PER ASTM C990 AT CONTRACTOR'S OPTION. MASTIC SHALL COVER A MINIMUM OF ONE-HALF THE COMPRESSED SURFACE. ALL JOINTS SHALL BE WATER TIGHT.
4. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET OR AS REQUIRED BY THE CITY ENGINEER.
5. SUMP BOTTOM MANHOLES ARE REQUIRED ON ALL STORM DRAIN SYSTEMS WITH PUMPS. 18" SUMP BELOW PIPE INVERT WHERE REQUIRED. SEE STORM DRAIN MANHOLE SUMP REQUIREMENTS STANDARD DRAWING.
6. 48" MANHOLES ARE REQUIRED FOR STORM DRAIN PIPE SIZES FROM 12" TO 24" OR AS REQUIRED BY THE CITY ENGINEER.
7. EXFILTRATION TEST REQUIRED AS PER ASTM C969-02, AS IMPLEMENTED BY CITY OF VISALIA.
8. SEE STORM DRAIN MANHOLE JOINT FINISHING REQUIREMENTS STANDARD DRAWING.



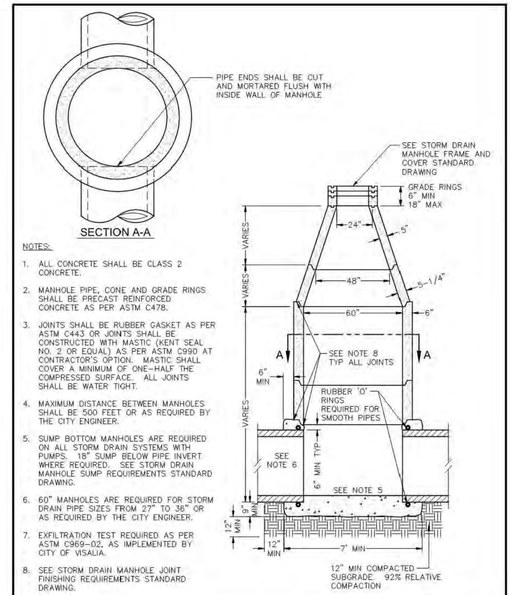
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

48" STORM DRAIN MANHOLE

REVISIONS 08/14/13 BK 2016

D-1



NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MANHOLE PIPE, CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AS PER ASTM C478.
3. JOINTS SHALL BE RUBBER GASKET AS PER ASTM C443 OR JOINTS SHALL BE CONSTRUCTED WITH MASTIC (KENT SEAL NO. 2 OR EQUAL) AS PER ASTM C990 AT CONTRACTOR'S OPTION. MASTIC SHALL COVER A MINIMUM OF ONE-HALF THE COMPRESSED SURFACE. ALL JOINTS SHALL BE WATER TIGHT.
4. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET OR AS REQUIRED BY THE CITY ENGINEER.
5. SUMP BOTTOM MANHOLES ARE REQUIRED ON ALL STORM DRAIN SYSTEMS WITH PUMPS. 18" SUMP BELOW PIPE INVERT WHERE REQUIRED. SEE STORM DRAIN MANHOLE SUMP REQUIREMENTS STANDARD DRAWING.
6. 60" MANHOLES ARE REQUIRED FOR STORM DRAIN PIPE SIZES FROM 27" TO 36" OR AS REQUIRED BY THE CITY ENGINEER.
7. EXFILTRATION TEST REQUIRED AS PER ASTM C969-02, AS IMPLEMENTED BY CITY OF VISALIA.
8. SEE STORM DRAIN MANHOLE JOINT FINISHING REQUIREMENTS STANDARD DRAWING.

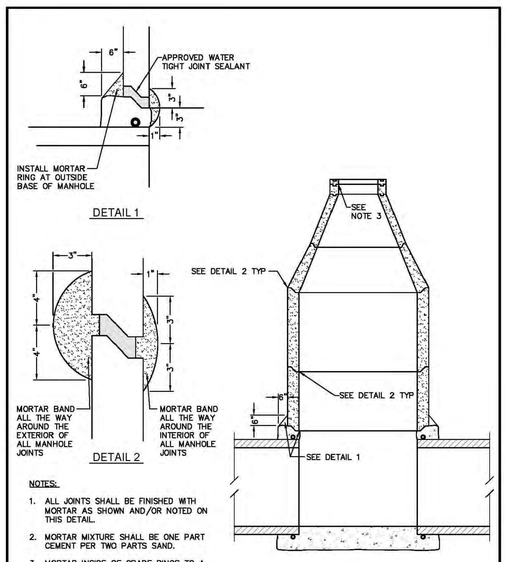
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

60" STORM DRAIN MANHOLE

REVISIONS 08/14/13 BK 2016

D-2



NOTES:

1. ALL JOINTS SHALL BE FINISHED WITH MORTAR AS SHOWN AND/OR NOTED ON THIS DETAIL.
2. MORTAR MIXTURE SHALL BE ONE PART CEMENT PER TWO PARTS SAND.
3. MORTAR INSIDE OF GRADE RINGS TO A SMOOTH SURFACE.
4. ALL JOINTS SHALL BE WATER TIGHT.

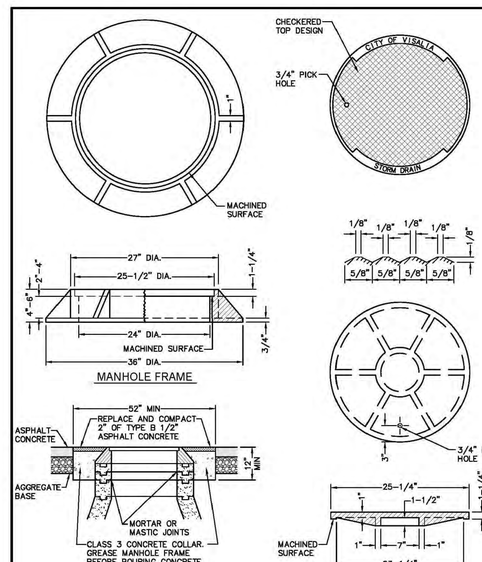
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

STORM DRAIN MANHOLE
JOINT FINISHING REQUIREMENTS

REVISIONS 06/14/13 BK 2016

D-7



NOTE: FRAME AND COVER SHALL MATCH CROSS SLOPE

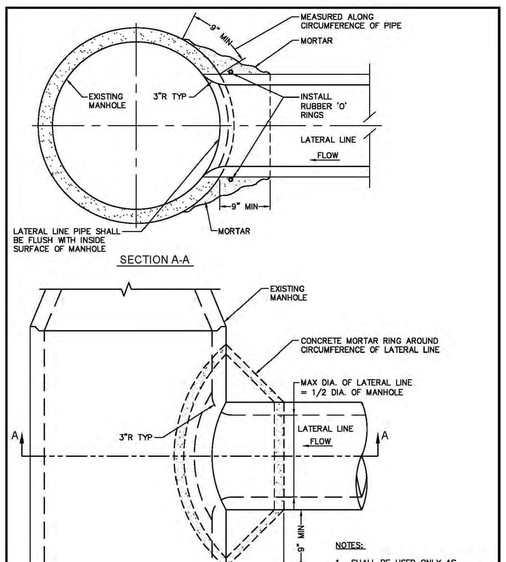
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

STORM DRAIN
MANHOLE FRAME AND COVER

REVISIONS 06/14/13 BK 2016

D-8



NOTES:

1. SHALL BE USED ONLY AS APPROVED BY THE CITY ENGINEER.
2. JOINT SHALL BE WATER TIGHT.

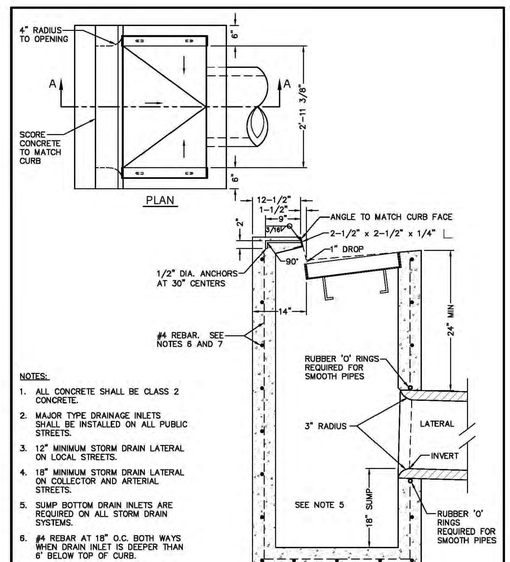
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

LATERAL LINE CONNECTION
AT EXISTING MANHOLE

REVISIONS 08/14/13 BK 2016

D-10



NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MAJOR TYPE DRAINAGE INLETS SHALL BE INSTALLED ON ALL PUBLIC STREETS.
3. 12" MINIMUM STORM DRAIN LATERAL ON LOCAL STREETS.
4. 18" MINIMUM STORM DRAIN LATERAL ON COLLECTOR AND ARTERIAL STREETS.
5. SUMP BOTTOM DRAIN INLETS ARE REQUIRED ON ALL STORM DRAIN SYSTEMS.
6. #4 REBAR AT 18" O.C. BOTH WAYS WHEN DRAIN INLET IS DEEPER THAN 6' BELOW TOP OF CURB.
7. MINIMUM CLEAR SPACING BETWEEN SURFACES OF CONCRETE AND REINFORCING STEEL SHALL BE 2".

APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

DRAINAGE INLET – GO TYPE

REVISIONS 06/14/13 BK 2016

D-12

NO.	DATE	DESCRIPTION

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM

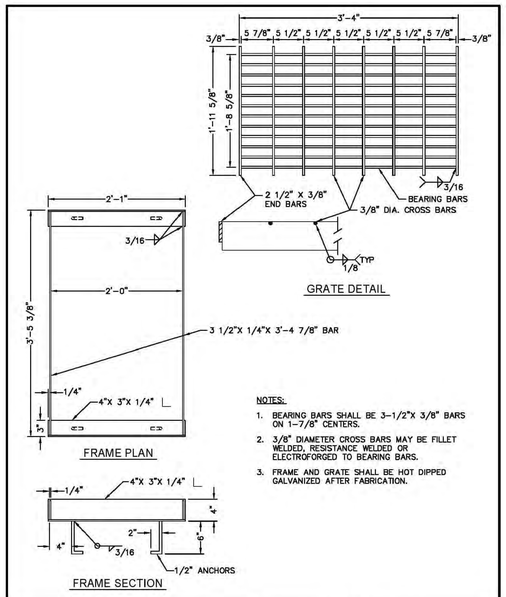
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
CIVIL DETAILS

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 33 OF 59

STAMPED CONCRETE MEDIAN C-35
MEDIAN NOSE DETAIL C-36
48" STORM DRAIN MANHOLE D-1
72" STORM DRAIN MANHOLE D-3
STORM DRAIN MANHOLE JOINT FINISHING REQUIREMENTS D-7
STORM DRAIN MANHOLE FRAME & COVER D-8
LATERAL LINE CONNECTION @ EXISTING MANHOLE D-10
DRAINAGE INLET D-12



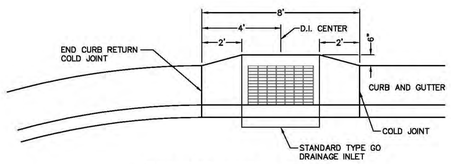
NOTES:

1. BEARING BARS SHALL BE 3-1/2"X 3/8" BARS ON 1-7/8" CENTERS.
2. 3/8" DIAMETER CROSS BARS MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.
3. THE FRAME AND GRATE SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.

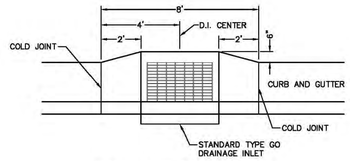
APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

DRAINAGE INLET – GO TYPE FRAME AND GRATE DETAIL — REVISIONS 05/17/04 BK 2016 — D-13

DRAINAGE INLET - FRAME & GRATE



TYPE GO DRAINAGE INLET (D.I.) INSTALLED AT CURB RETURN

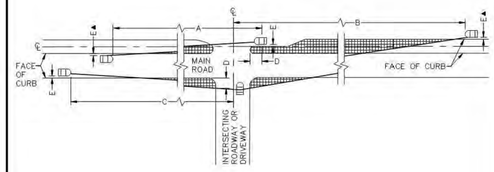


TYPE GO DRAINAGE INLET (D.I.) INSTALLED MID-BLOCK

APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

MISCELLANEOUS DRAINAGE INLET DETAILS — REVISIONS 08/26/16 BK 2016 — D-14

MISCELLANEOUS DRAINAGE INLET DETAILS — D-14



LEGEND:

▲ WHERE NO MEDIAN IS PRESENT USE CENTER OF ROADWAY AS A SUBSTITUTE FOR E

HEIGHT RESTRICTED AREA (SEE NOTE 4)

TABLE A

STREET	A	B*	C**	D	E
COLLECTOR	355'	500'	385'	18'	3'
ARTERIAL	480'	700'	480'	18'	3'

* REDUCE COLUMN "B" BY 165 FEET FOR SIGNALIZED INTERSECTIONS

** DIMENSION "C" IS FOR RIGHT-TURNS AT SIDE STREET APPROACHES PROVIDING ONLY RIGHT-IN/RIGHT-OUT MOVEMENTS. WHERE LEFT TURNS ARE ALLOWED, DIMENSION "C" SHALL EQUAL DIMENSION "B".

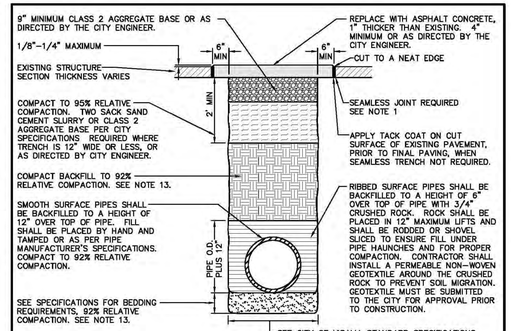
NOTES:

1. DIMENSIONS SHOWN IN TABLE "A" SHALL BE VERIFIED BASED ON AASHTO STANDARDS.
2. SIGHT DISTANCE FOR A COLLECTOR ROADWAY IS BASED ON A PASSENGER CAR ON A ROADWAY THAT PROVIDES 2-LANES IN EACH DIRECTION WITH A 14' RAISED MEDIAN, A DESIGN SPEED OF 40 MPH, AND AN APPROACH GRADE OF LESS THAN THREE PERCENT.
3. SIGHT DISTANCE FOR AN ARTERIAL ROADWAY IS BASED ON A PASSENGER CAR ON A ROADWAY THAT PROVIDES 3-LANES IN EACH DIRECTION WITH A 24' RAISED MEDIAN, A DESIGN SPEED OF 50 MPH, AND AN APPROACH GRADE OF LESS THAN THREE PERCENT.
4. NO SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES, OR OTHER PLANTS, (EXCLUDING TREES), OVER 30 INCHES IN HEIGHT SHALL BE PERMITTED WITHIN THE RESTRICTED AREAS.
5. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
   A. NO LIMBS, LEAVES NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
   B. TREES ARE PLANTED SO AS NOT TO OBSTRUCT 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.
6. SIGHT DISTANCE FOR TYPICAL RIGHT ANGLE INTERSECTION ONLY. SKEWED INTERSECTIONS WILL REQUIRE ADDITIONAL DESIGN FOR REVIEW AND APPROVAL FROM CITY ENGINEER.

APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

SIGHT DISTANCE REQUIREMENTS FOR ARTERIAL & COLLECTOR STREETS — REVISIONS 08/26/16 BK 2016 — SD-3

SIGHT DISTANCE REQUIREMENTS FOR ARTERIAL & COLLECTOR STREETS — SD-3



NOTES:

1. ALL CUTS IN EXISTING PAVEMENT THAT IS LESS THAN EIGHT YEARS OLD OR AS DIRECTED BY THE CITY ENGINEER SHALL BE REQUIRED TO HAVE SEAMLESS JOINTS WITH THE EXISTING PAVEMENT BY USING A HEATER-REMIX PROCESS.
2. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE CITY OF VISALIA STANDARD SPECIFICATIONS.
3. ALL PROVISIONS AND REQUIREMENTS OF THE CITY OF VISALIA MUNICIPAL CODE SHALL BE FOLLOWED.
4. STREET CUTS SHALL BE MADE PARALLEL OR AT RIGHT ANGLES TO THE CENTERLINE OF THE STREET.
5. ALL TRENCHES UNDER EXISTING CURB AND GUTTER OR OTHER CITY STRUCTURES SHALL REQUIRE A TWO SACK CEMENT SLURRY BACKFILL. CEMENT SLURRY BACKFILL SHALL HAVE NOT LESS THAN 188 POUNDS OF CEMENT PER CUBIC YARD OF MATERIAL PRODUCED.
6. MANHOLE AND WATER VALVE RAISING ASSOCIATED WITH NEW STREET CONSTRUCTION IS NOT REQUIRED TO FOLLOW NOTE 1.
7. MOISTURE CONDITION AND MIX BACKFILL MATERIAL PRIOR TO PLACEMENT.
8. TEMPORARY TRENCH RESURFACING SHALL CONSIST OF A MINIMUM OF 2" COLD MIX AND SHALL BE REQUIRED WHENEVER THE STREET IS TEMPORARILY OPENED TO TRAFFIC. ALL TEMPORARY MATERIAL SHALL BE COMPLETELY REMOVED PRIOR TO FINAL PAVING.
9. TRENCH RESURFACING STRUCTURAL SECTION IN OTHER THAN PERMANENTLY PAVED OR UNPAVED AREAS SHALL BE DETERMINED BY THE CITY ENGINEER.
10. NO JETTING OR FLOODING OF TRENCH BACKFILL WILL BE ALLOWED. BACKFILL IS TO BE PLACED IN MAXIMUM 8" LOOSE LIFTS, THEN COMPACTED AS DIRECTED BY THE CITY ENGINEER.
11. FOR UTILITY POTHOLES WITH DIAMETER 9" OR LESS OR MAXIMUM DIMENSION IN ANY DIRECTION OF 9" OR LESS, OR WHERE DIRECTED BY THE ENGINEER, BACKFILL SHALL COMPLY WITH THE STANDARD CITY DRAWING FOR UTILITY POTHOLE BACKFILL.
12. IF THERE IS LESS THAN 2 FEET BETWEEN THE EDGE OF A TRENCH CUT AND A CONCRETE IMPROVEMENT, OR EDGE OF PAVING, THEN REMOVE AND REPLACE THE A.C. PAVEMENT FROM THE EDGE OF THE TRENCH CUT TO THE CONCRETE IMPROVEMENT, OR EDGE OF PAVING.
13. UNLESS OTHERWISE NOTED BACKFILL AND BEDDING SHALL BE CLEAN GRANULAR NATIVE MATERIAL PER CITY SPECIFICATIONS.

APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

TRENCH BACKFILL/PATCH PAVING — REVISIONS 10/31/14 BK 2016 — E-1

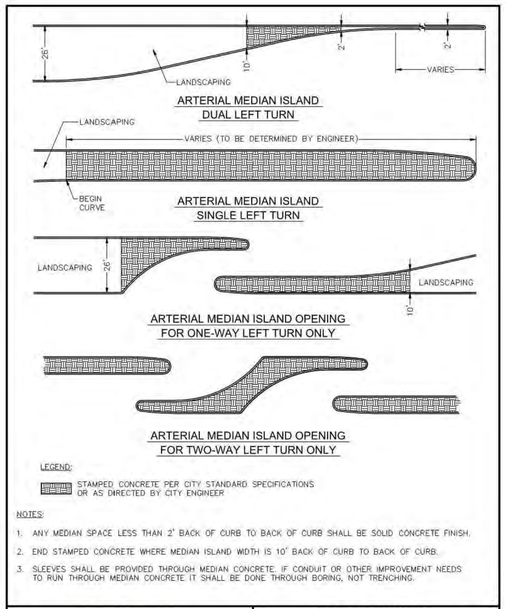
TRENCH BACKFILL / PATCH PAVING — E-1

NO.	DATE	DESCRIPTION

PREPARED BY: 4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215
CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
CIVIL DETAILS



LEGEND:

STAMPED CONCRETE PER CITY STANDARD SPECIFICATIONS OR AS DIRECTED BY CITY ENGINEER

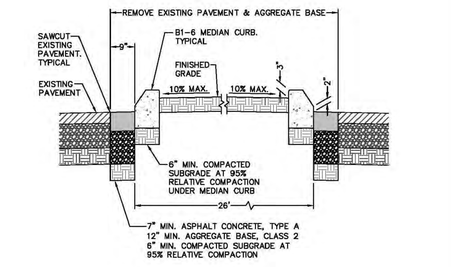
NOTES:

1. ANY MEDIAN SPACE LESS THAN 2' BACK OF CURB TO BACK OF CURB SHALL BE SOLID CONCRETE FINISH.
2. END STAMPED CONCRETE WHERE MEDIAN ISLAND WIDTH IS 10' BACK OF CURB TO BACK OF CURB.
3. SLEEVES SHALL BE PROVIDED THROUGH MEDIAN CONCRETE. IF CONDUIT OR OTHER IMPROVEMENT NEEDS TO RUN THROUGH MEDIAN CONCRETE IT SHALL BE DONE THROUGH BORING, NOT TRENCHING.

APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

STAMPED CONCRETE & LANSCAPING LOCATIONS IN ARTERIAL MEDIANS — REVISIONS 08/05/16 BK 2016 — P-13

STAMPED CONCRETE & LANDSCAPE LOATIONS — P-13



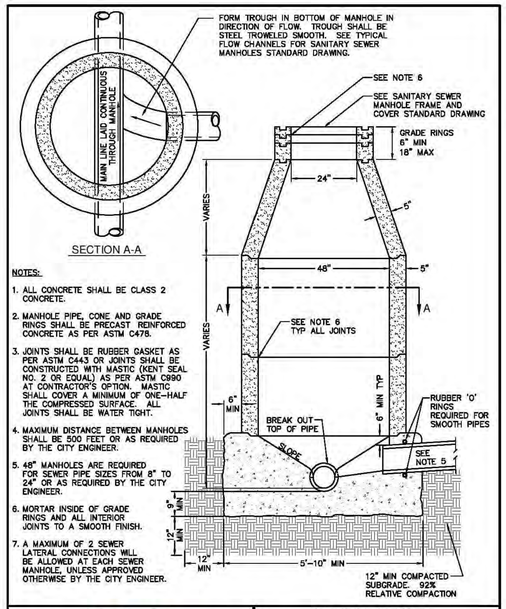
NOTE:

1. IF EXISTING PAVEMENT SECTION IS THICKER THAN SECTION THICKNESS MENTIONED ABOVE, THE PAVEMENT TO BE INSTALLED SHALL MATCH EXISTING.
2. IF MEDIAN WIDTH IS LESS THAN 6 FEET, THE MEDIAN SLOPE MAY BE INCREASED UP TO 25%.
3. MEDIAN IMPROVEMENTS, INCLUDING LANDSCAPING, SHALL NOT EXCEED 30" IN HEIGHT WITHIN THE SIGHT TRIANGLE AREA.
4. FULL DEPTH ASPHALT CONCRETE PLUG MAY BE ALLOWED WITH APPROVAL OF CITY ENGINEER.

APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

ARTERIAL MEDIAN INSTALLATION IN EXISTING PAVEMENT — REVISIONS 08/10/16 BK 2016 — P-14

ARTERIAL MEDIAN INSTALLATION IN EXISTING PAVEMENT — P-14



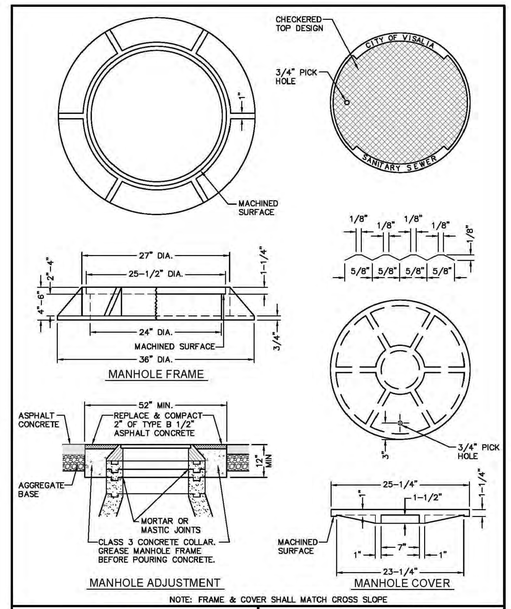
NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MANHOLE PIPE, CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AS PER ASTM C478.
3. JOINTS SHALL BE RUBBER GASKET AS PER ASTM C443 OR JOINTS SHALL BE CONSTRUCTED WITH MASTIC (KENT SEAL NO. 2 OR EQUAL) AS PER ASTM C990 AT CONTRACTOR'S OPTION. MASTIC SHALL COVER A MINIMUM OF ONE-HALF THE COMPRESSED SURFACE. ALL JOINTS SHALL BE WATER TIGHT.
4. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET OR AS REQUIRED BY THE CITY ENGINEER.
5. 48" MANHOLES ARE REQUIRED FOR SEWER PIPE SIZES FROM 8" TO 24" OR AS REQUIRED BY THE CITY ENGINEER.
6. MORTAR INSIDE OF GRADE RINGS AND ALL INTERIOR JOINTS TO A SMOOTH FINISH.
7. A MAXIMUM OF 2 SEWER LATERAL CONNECTIONS WILL BE ALLOWED AT EACH SEWER MANHOLE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.

APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

48" SANITARY SEWER MANHOLE — REVISIONS 09/27/13 BK 2016 — S-1

48" SANITARY SEWER MANHOLE — S-1



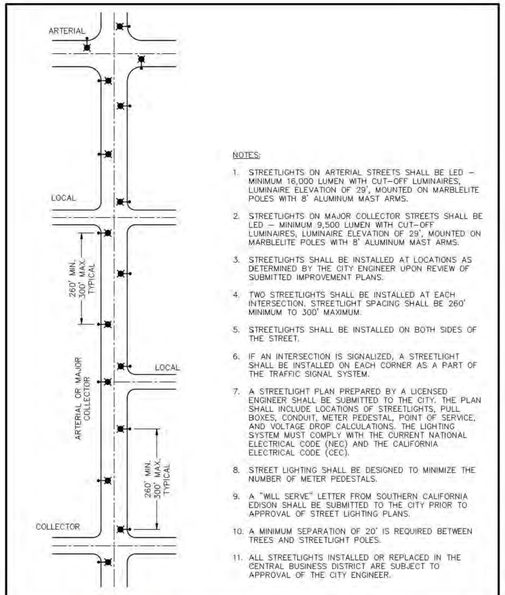
NOTE: FRAME & COVER SHALL MATCH CROSS SLOPE

APPROVED BY: _____ CITY ENGINEER R.P.E. 61734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

SANITARY SEWER MANHOLE FRAME AND COVER — REVISIONS 12/18/07 BK 2016 — S-6

SANITARY SEWER MANHOLE FRAME & COVER — S-6

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 34 OF 59

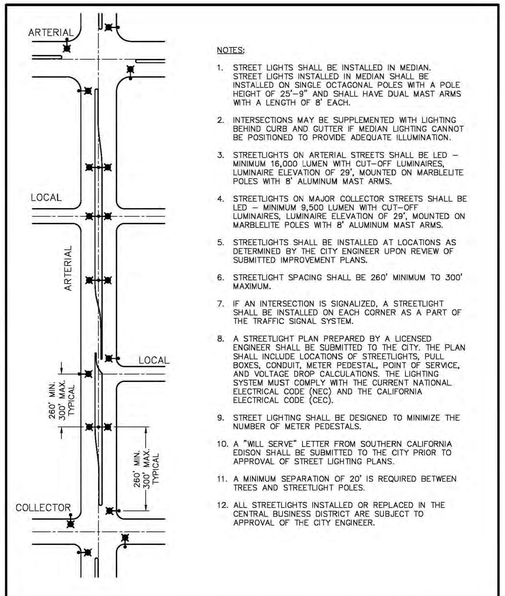


NOTES:

1. STREETLIGHTS ON ARTERIAL STREETS SHALL BE LED – MINIMUM 16,000 LUMEN WITH CUT–OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
2. STREETLIGHTS ON MAJOR COLLECTOR STREETS SHALL BE LED – MINIMUM 9,500 LUMEN WITH CUT–OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
3. STREETLIGHTS SHALL BE INSTALLED AT LOCATIONS AS DETERMINED BY THE CITY ENGINEER UPON REVIEW OF SUBMITTED IMPROVEMENT PLANS.
4. TWO STREETLIGHTS SHALL BE INSTALLED AT EACH INTERSECTION. STREETLIGHT SPACING SHALL BE 260' MINIMUM TO 300' MAXIMUM.
5. STREETLIGHTS SHALL BE INSTALLED ON BOTH SIDES OF THE STREET.
6. IF AN INTERSECTION IS SIGNALIZED, A STREETLIGHT SHALL BE INSTALLED ON EACH CORNER AS A PART OF THE TRAFFIC SIGNAL SYSTEM.
7. A STREETLIGHT PLAN PREPARED BY A LICENSED ENGINEER SHALL BE SUBMITTED TO THE CITY. THE PLAN SHALL INCLUDE LOCATIONS OF STREETLIGHTS, PULL BOXES, CONDUIT, METER PEDESTAL, POINT OF SERVICE, AND VOLTAGE DROP CALCULATIONS. THE LIGHTING SYSTEM MUST COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE (NEC) AND THE CALIFORNIA ELECTRICAL CODE (CEC).
8. STREET LIGHTING SHALL BE DESIGNED TO MINIMIZE THE NUMBER OF METER PEDESTALS.
9. A "WILL SERVE" LETTER FROM SOUTHERN CALIFORNIA EDISON SHALL BE SUBMITTED TO THE CITY PRIOR TO APPROVAL OF STREET LIGHTING PLANS.
10. A MINIMUM SEPARATION OF 20' IS REQUIRED BETWEEN TREES AND STREETLIGHT POLES.
11. ALL STREETLIGHTS INSTALLED OR REPLACED IN THE CENTRAL BUSINESS DISTRICT ARE SUBJECT TO APPROVAL OF THE CITY ENGINEER.

APPROVED BY: CITY ENGINEER R.P.E. 81734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

ARTERIAL AND MAJOR COLLECTOR STREET LIGHTING — REVISIONS 04/29/16 BK 2016 — SL–3



NOTES:

1. STREET LIGHTS SHALL BE INSTALLED IN MEDIAN. STREET LIGHTS INSTALLED IN MEDIAN SHALL BE INSTALLED ON SINGLE OCTAGONAL POLES WITH A POLE HEIGHT OF 25'–9" AND SHALL HAVE DUAL MAST ARMS WITH A LENGTH OF 8' EACH.
2. INTERSECTIONS MAY BE SUPPLEMENTED WITH LIGHTING BEHIND CURB AND GUTTER IF MEDIAN LIGHTING CANNOT BE POSITIONED TO PROVIDE ADEQUATE ILLUMINATION.
3. STREETLIGHTS ON ARTERIAL STREETS SHALL BE LED – MINIMUM 16,000 LUMEN WITH CUT–OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
4. STREETLIGHTS ON MAJOR COLLECTOR STREETS SHALL BE LED – MINIMUM 9,500 LUMEN WITH CUT–OFF LUMINAIRES, LUMINAIRE ELEVATION OF 29', MOUNTED ON MARBLELITE POLES WITH 8' ALUMINUM MAST ARMS.
5. STREETLIGHTS SHALL BE INSTALLED AT LOCATIONS AS DETERMINED BY THE CITY ENGINEER UPON REVIEW OF SUBMITTED IMPROVEMENT PLANS.
6. STREETLIGHT SPACING SHALL BE 260' MINIMUM TO 300' MAXIMUM.
7. IF AN INTERSECTION IS SIGNALIZED, A STREETLIGHT SHALL BE INSTALLED ON EACH CORNER AS A PART OF THE TRAFFIC SIGNAL SYSTEM.
8. A STREETLIGHT PLAN PREPARED BY A LICENSED ENGINEER SHALL BE SUBMITTED TO THE CITY. THE PLAN SHALL INCLUDE LOCATIONS OF STREETLIGHTS, PULL BOXES, CONDUIT, METER PEDESTAL, POINT OF SERVICE, AND VOLTAGE DROP CALCULATIONS. THE LIGHTING SYSTEM MUST COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE (NEC) AND THE CALIFORNIA ELECTRICAL CODE (CEC).
9. STREET LIGHTING SHALL BE DESIGNED TO MINIMIZE THE NUMBER OF METER PEDESTALS.
10. A "WILL SERVE" LETTER FROM SOUTHERN CALIFORNIA EDISON SHALL BE SUBMITTED TO THE CITY PRIOR TO APPROVAL OF STREET LIGHTING PLANS.
11. A MINIMUM SEPARATION OF 20' IS REQUIRED BETWEEN TREES AND STREETLIGHT POLES.
12. ALL STREETLIGHTS INSTALLED OR REPLACED IN THE CENTRAL BUSINESS DISTRICT ARE SUBJECT TO APPROVAL OF THE CITY ENGINEER.

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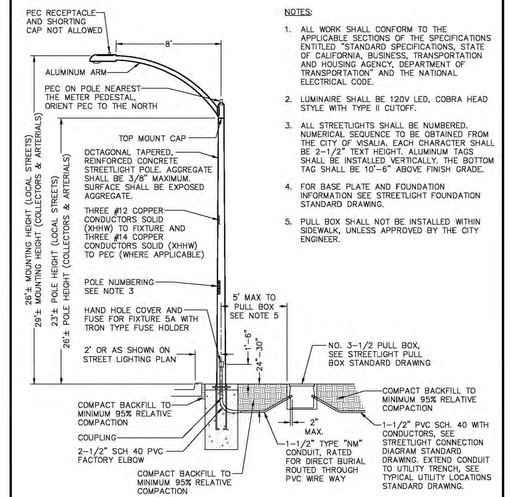
ARTERIAL STREET LIGHTING WITH MEDIAN CURB — REVISIONS 08/22/16 BK 2016 — SL–4



NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, BUSINESS, TRANSPORTATION AND HOUSING AGENCY, DEPARTMENT OF TRANSPORTATION" AND THE NATIONAL ELECTRICAL CODE.
2. LUMINAIRE SHALL BE 120V LED, COBRA HEAD STYLE WITH TYPE II CUTOFF.
3. ALL STREETLIGHTS SHALL BE NUMBERED. NUMERICAL SEQUENCE TO BE OBTAINED FROM THE CITY OF VISALIA. EACH CHARACTER SHALL BE 2–1/2" TEXT HEIGHT. ALUMINUM TAGS SHALL BE INSTALLED VERTICALLY. THE BOTTOM TAG SHALL BE 10'–6" ABOVE FINISH GRADE.
4. FOR BASE PLATE AND FOUNDATION INFORMATION SEE STREETLIGHT FOUNDATION STANDARD DRAWING.
5. PULL BOX SHALL NOT BE INSTALLED WITHIN SIDEWALK, UNLESS APPROVED BY THE CITY ENGINEER.

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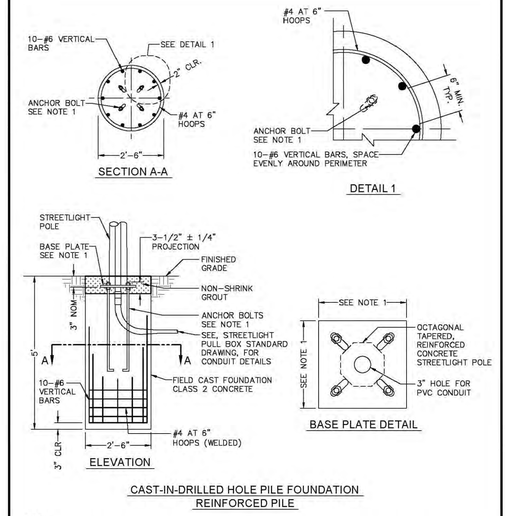
STREETLIGHT POLE — REVISIONS 08/22/16 BK 2016 — SL–5



CAST-IN-DRILLED HOLE PILE FOUNDATION
REINFORCED PILE

NOTE:

1. BASE PLATE AND ANCHOR BOLT DIMENSIONS PER MANUFACTURER SPECIFICATIONS. AT MINIMUM, ANCHOR BOLTS 1"#x36"x4". INSTALL PER MANUFACTURERS RECOMMENDATION.

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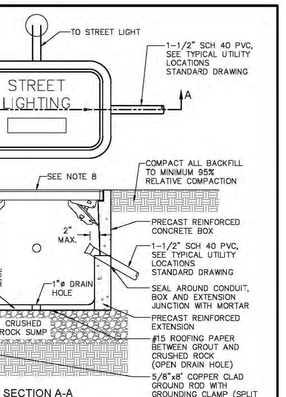
STREETLIGHT FOUNDATION — REVISIONS 08/22/16 BK 2016 — SL–6



SECTION A-A

NOTES:

1. PULL BOXES SHALL BE NO. 3–1/2 UNLESS OTHERWISE NOTED ON PLANS.
2. PULL BOXES SHALL BE GROUTED PRIOR TO INSTALLATION OF CONDUCTORS, SLOPED TOWARD THE DRAIN HOLE. PLACE A LAYER OF ROOFING PAPER BETWEEN THE CRUSHED ROCK AND GROUT. OPEN AT DRAIN HOLE.
3. PULL LIDS BEFORE POURING CONCRETE AROUND PULL BOXES.
4. WRAP BOX WITH ROOFING PAPER BEFORE BACKFILLING.
5. PULL BOX SHALL BE TRAFFIC RATED PER CALTRANS STANDARDS IF NOT LOCATED BEHIND A CURB.
6. STREET LIGHT CONDUCTORS SHALL BE INSTALLED CONTINUOUS. SPLICES SHALL ONLY BE PERMITTED AT THE PULL BOX.
7. FIRMLY INSTALL DUCT SEAL AFTER INSTALLATION OF CONDUCTORS.
8. A LOCKING LID SHALL BE INSTALLED. LID SHALL BE GALVANIZED STEEL DIAMOND PLATE, MINIMUM THICKNESS 3/16", WITH MINIMUM TWO CLAMPING JAWS. DELIVER ONE KEY PER PROJECT TO THE CITY OF VISALIA REPRESENTATIVE OR AS DIRECTED BY THE CITY REPRESENTATIVE. LID SHALL BE LOCKJAW BRAND OR APPROVED EQUAL. LID SHALL BE BONDED PER CALTRANS STANDARDS FOR TRAFFIC RATED LIDS.
9. A MINIMUM OF 2' OF SLACK IN EACH CONDUCTOR SHALL BE LEFT IN EACH PULL BOX. TWIST AND PUSH TO BOTTOM OF PULL BOX TO PREVENT WIRE FROM PULLING THROUGH.
10. CONDUIT SHALL HAVE BELL ENDS. EMPTY CONDUITS SHALL BE CAPPED WITHOUT GLUE.
11. CONDUIT SHALL BE MANDREL TESTED AFTER BACKFILL AND COMPACTION IN THE PRESENCE OF THE CITY OF VISALIA REPRESENTATIVE.
12. REFER TO TYPICAL UTILITY LOCATIONS STANARD DRAWING FOR PLACEMENT OF STREET LIGHTING CONDUIT IN UTILITY TRENCHES.
13. GROUND RODS REQUIRED ONLY IN PULL BOX FARTHEST FROM THE METER PEDESTAL AND IN THE METER PEDESTAL.

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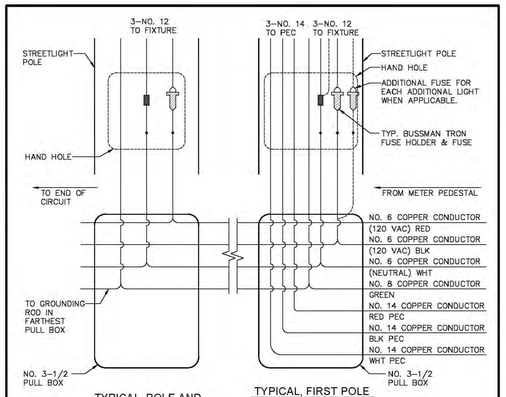
STREETLIGHT PULL BOX — REVISIONS 08/22/16 BK 2016 — SL–7



TYPICAL, POLE AND PULL BOX ALONG RUN

TYPICAL, FIRST POLE AND PULL BOX, NEAREST METER

NOTES:

1. ALL CONDUCTORS SHALL BE (XHHW) TYPE, OR AS APPROVED BY CITY ENGINEER.
2. VOLTAGE DROP CALCULATIONS SHALL BE PERFORMED BY A LICENSED ENGINEER AND SUBMITTED TO THE CITY OF VISALIA FOR REVIEW.
3. 240V CIRCUITS ARE NOT STANDARD BUT MAY BE USED IF WARRANTED BY SPECIAL CIRCUMSTANCES. 240V CIRCUITS REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL BE DESIGNED BY A LICENSED ENGINEER.
4. SPLICES SHALL BE PER CALTRANS STANDARD PLAN ES–13A, TYPE "S" OR TYPE "ST" AS APPLICABLE. SPLICES SHALL BE INSULATED IN ACCORDANCE WITH METHOD "B".
5. SPLIT BOLT CONNECTOR (KEARNEY CONNECTORS, OR EQUAL), MAY BE USED TO SPLICE NO. 8 CONDUCTORS OR LARGER WITH METHOD "B" INSULATION.
6. WIRE NUTS ARE NOT ALLOWED FOR SPLICING.
7. THIS WIRING DIAGRAM DOES NOT SHOW THE SEPARATE GFI CIRCUIT REQUIRED IN THE DOWNTOWN AREA.

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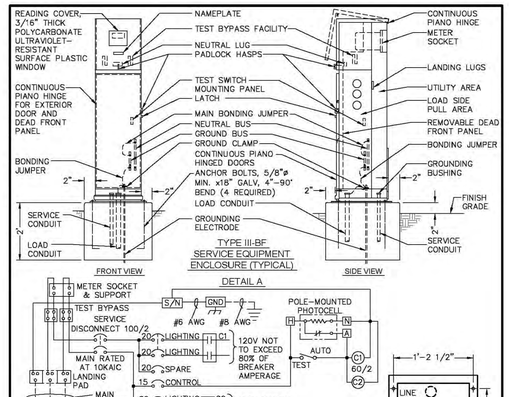
STREETLIGHT CONNECTION DIAGRAM — REVISIONS 08/22/16 BK 2016 — SL–8



ENCLOSURE CONSTRUCTION NOTES:

1. EXTERIOR, 1/8" ALUMINUM, AND INTERIOR 14 GA COLD ROLLED STEEL, ELECTRICALLY WELDED AND REINFORCED WHERE REQUIRED.
2. CONSTRUCTION WILL BE NEMA 3R, RAINTIGHT.
3. ALL NUTS, BOLTS AND SCREWS WILL BE STAINLESS STEEL.
4. NUTS, BOLTS & SCREWS WILL NOT BE VISIBLE FROM OUTSIDE OF ENCLOSURE.
5. NAMEPLATES WILL BE PROVIDED AS REQUIRED.
6. CONTROL WIRING WILL BE MARKED AT BOTH ENDS BY PERMANENT WIRE MARKERS.
7. A PLASTIC COVERED WIRING DIAGRAM WILL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.
8. ENCLOSURE WILL BE FACTORY WIRED AND CONFORM TO REQUIRED NEMA AND UL 508A STANDARDS.
9. COLOR TO BE: ANODIZED ALUMINUM
10. CONDUIT FROM SOUTHERN CALIFORNIA EDISON (SCE) POINT OF SERVICE SHALL BE 3" SCH. 80 PVC WITH A PULL ROPE PER SCE STANDARDS.
11. METER PEDESTAL SHALL CONFORM TO EUSERC DRAWING NO. 308.

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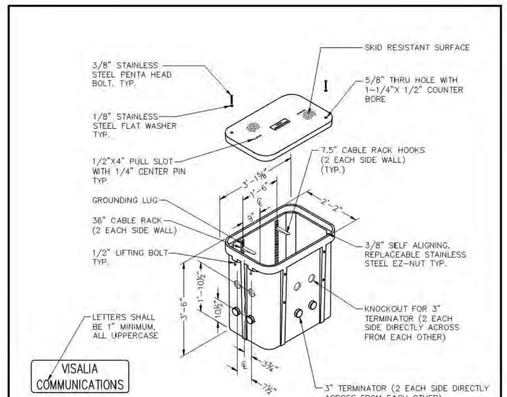
STREETLIGHT METER PEDESTAL TYPE III–BF — REVISIONS 08/22/16 BK 2016 — SL–9



TYPICAL PULL BOX

PLAN SYMBOL:

NEW

EXISTING

NOTE:

THE BOX OF THIS ASSEMBLY SHALL MEET BOTH PERFORMANCES AND TESTING OF ANSI/SCTE 77 TIER 15. INDEPENDENT THIRD PARTY VERIFICATION OF TEST REPORTS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER CERTIFYING THAT ALL TEST PROVISIONS OF THIS SPECIFICATION HAVE BEEN MET ARE REQUIRED WITH EACH SUBMITTAL. SEE THE FOLLOWING TYPICAL FIBER PULL BOX STANDARD DRAWINGS FOR INSTALLATION INFORMATION.

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TYPICAL FIBER PULL BOX — REVISIONS 09/09/16 BK 2016 — TE–5

ARTERIAL & MAJOR COLLECTOR STREET LIGHTING SL–3
ARTERIAL STREET LIGHTING W/ MEDIAN CURB SL–4
STREETLIGHT POLE SL–5
STREETLIGHT FOUNDATION SL–6
STREETLIGHT PULL BOX SL–7
STREETLIGHT CONNECTION DIAGRAM SL–8
STREETLIGHT METER PEDESTAL TYPE III - BF SL–9
TYPICAL FIBER PULL BOX TE–5

NO. DATE DESCRIPTION

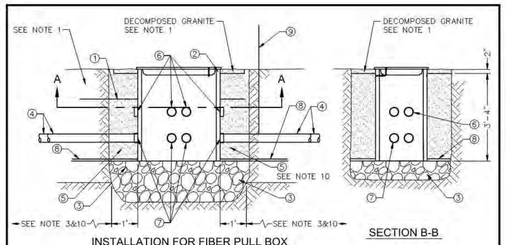
PREPARED BY: 4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

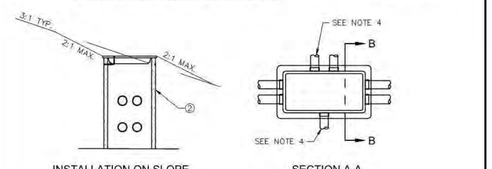
RIGGIN AVENUE
WIDENING & IMPROVEMENTS
CIVIL DETAILS

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 35 OF 59



INSTALLATION FOR FIBER PULL BOX

SECTION B-B



INSTALLATION ON SLOPE

SECTION A-A

NOTES:

1. SEE TYPICAL FIBER TRENCH DETAILS STANDARD DRAWING AND TYPICAL FIBER TRENCH & STREET LIGHT JOINT TRENCH DETAIL STANDARD DRAWING FOR TRENCH REQUIREMENTS.
2. SEE TYPICAL FIBER PULL BOX INSTALLATION NOTES STANDARD DRAWING FOR ADDITIONAL NOTES.
3. STRICTER REQUIREMENTS AS DIRECTED BY THE CITY ENGINEER IF PULL BOX IS WITHIN ROADWAY.

MATERIAL LIST

ITEM	DESCRIPTION
①	WARNING TAPE-"CAUTION FIBER OPTIC LINE BURIED BELOW"
②	CITY OF VISALIA FIBER PULL BOX – SEE TYPICAL FIBER PULL BOX STANDARD DRAWINGS
③	3/4" CLEAN CRUSHED ROCK
④	3" DIAMETER SCHEDULE 40 PVC CONDUITS
⑤	CONTROLLED LOW STRENGTH MATERIAL–SEE NOTE 10
⑥	3" TERMINATOR KNOCK OUT – SEE TYPICAL FIBER PULL BOX STANDARD DRAWINGS
⑦	3" TERMINATOR
⑧	30# FELT PAPER & GALVANIZED STEEL SCREEN – SEE NOTE 8
⑨	PULL BOX DELINEATOR (FLEXIBLE IDENTIFICATION MARKER)–SEE NOTE 9

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TYPICAL FIBER PULL BOX INSTALLATION 1 OF 2 | REVISIONS 09/13/16 BK 2016 | TE–6

TYPICAL FIBER PULL BOX INSTALLATION 1 OF 2 | TE-6

TYPICAL FIBER PULL BOX INSTALLATION NOTES:

1. BACKFILL WITH DESIGNATED 3/4" CLASS 2 AGGREGATE BASE TO SIX (6) INCHES BELOW FINISH GRADE. BACKFILL WITH FOUR (4) INCHES OF WITH SELECT EXCAVATED MATERIAL AND THOROUGHLY COMPACT. TWO (2) INCHES OF DECOMPOSED GRANITE SHALL BE USED TO MATCH SLOPES.
2. THIS PULL BOX IS DESIGNED FOR NON–TRAFFIC AREAS.
3. CONDUIT FROM THE TYPICAL TRENCH SECTION SHALL NOT DEFLECT BY MORE THAN ONE (1) INCHES PER FOOT FROM THE ALIGNMENT PRECEDING OR FOLLOWING THE PULL BOX.
4. LATERAL CONDUIT AS REQUIRED.
5. ALL POWER AND COMMUNICATIONS CABLE SHALL BE TAGGED WITH CABLE IDENTIFICATION.
6. "VISALIA COMMUNICATIONS" SHALL BE THE TITLE EMBOSSED ON THE LID.
7. PVC CONDUIT SHALL BE USED TO ATTACH TO PULL BOX TERMINATORS. SEE TYPICAL FIBER PULL BOX STANDARD DRAWING.
8. 30# FELT PAPER AND A GALVANIZED STEEL SCREEN WITH NO LARGER THAN THREE QUARTERS (3/4) OF AN INCH OPENINGS SHALL BE INSTALLED BETWEEN PULL BOX AND AGGREGATE.
9. INSTALL ORANGE FLEXIBLE IDENTIFICATION MARKERS TWELVE (12) INCHES IN FRONT OF EACH PULL BOX WITHOUT TOUCHING CONDUIT. MARKER HEIGHT SHALL BE THREE (3) FEET ABOVE GRADE AND LABELED "FIBER OPTIC CABLE". FLEXIBLE IDENTIFICATION MARKERS SHALL NOT BE INSTALLED AT PULL BOXES AT SIGNALIZED INTERSECTIONS.
10. POUR 2–SACK SLURRY, OR A CONTROLLED LOW STRENGTH MATERIAL THAT MEETS CALTRANS SPECIFICATIONS, WITHIN TWELVE (12) INCHES OF PULL BOX.
11. PULL BOX HEIGHT ABOVE FINISHED GRADE SHALL PERMIT TWO (2) INCHES OF DECOMPOSED GRANITE TO BE USED TO MATCH SLOPE.
12. REFER TO TYPICAL FIBER PULL BOX STANDARD DRAWING FOR PULL BOX DIMENSIONS.
13. EXISTING PULL BOX CONFIGURATIONS MAY VARY. LOCATIONS WHERE PULL BOXES ARE BEING REPLACED, FIBER PULL BOXES SHALL BE INSTALLED AS SHOWN ON THIS SHEET UNLESS DIRECTED OTHERWISE BY THE CITY ENGINEER OR DESIGNEE.
14. EXISTING CONDUIT ENTERING A PULL BOX MAY NOT BE CORRECTLY ALIGNED TO FACILITATE PULLING CABLES THROUGH THE PULL BOX BY USE OF A PULLING SHOE. THE FORCE ACCOUNT ITEM FOR CONDUIT RECONDITIONING DOES NOT COVER REALIGNMENT OF CONDUIT TO ALLOW FOR PULLING THROUGH AN EXISTING PULL BOX, THEREBY ELIMINATING IT AS A PULL POINT.
15. IN ALL LOCATIONS WHERE FIBER OPTIC CABLE ENTERS A PULL BOX, CABLE SLACK SHALL BE LOOSELY LOOPED USING THE RACK AND HOOK SYSTEM. THIRTY FOOT (30') OF SLACK SHALL BE LEFT WHERE THE FIBER OPTIC CABLE ENTERS/EXITS THE COMMUNICATION VAULT PROVIDING A SIXTY FOOT (60') COIL OF SLACK.
16. A GROUNDING ELECTRODE REQUIRED WHEN SPECIFIED.

INSTRUCTIONS:

IT IS INTENDED THAT THESE NOTES SHALL BE PLACED ON THE PLANS WHERE APPROPRIATE TO FIT SPECIFIC PROJECT CONDITIONS. IF THEY ARE EDITED OR ALTERED, THESE NOTES SHALL REQUIRE APPROVAL BY THE CITY ENGINEER OR DESIGNEE.

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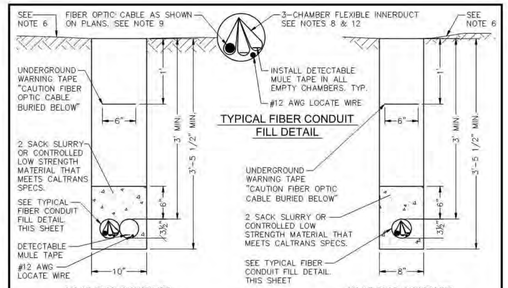
TYPICAL FIBER PULL BOX INSTALLATION 2 OF 2 | REVISIONS 09/15/16 BK 2016 | TE–7

TYPICAL FIBER PULL BOX INSTALLATION 2 OF 2 | TE-7



(2) 3" PVC CONDUIT OPEN TRENCH INSTALLATION

(1) 3" PVC CONDUIT OPEN TRENCH INSTALLATION

NOTES:

1. CONDUIT CONTENTS ARE ORIENTED ASSUMING THE SECTION FACING IN THE DIRECTION OF TRAVEL FOR THE MAJOR ARTERIAL.
2. ALL SPOIL MATERIAL SHALL BE REMOVED OFFSITE BY THE CONTRACTOR.
3. AREA SHALL BE RETURNED TO EXISTING GRADE.
4. CONDUIT COUPLINGS SHALL BE STAGGERED.
5. #12 AWG LOCATE WIRE SHALL BE INSTALLED IN ALL CONDUITS. DETECTABLE MULE TAPE SHALL BE INSTALLED IN ALL UNUSED CONDUITS AND FLEXIBLE INNERDUCT CHAMBERS. LEAVE A 10 FOOT LOOP OF WIRE IN A SMALL JUNCTION BOX WITHIN 5 FEET OF THE CONTROLLER CABINET, OR WITHIN THE CABINET.
6. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT TO 95% OF MAXIMUM DENSITY.
7. CONTROLLED LOW STRENGTH MATERIAL REQUIRED WHEN TRUNK AND/OR BRANCH FIBER–OPTIC CABLES INSTALLED IN CONDUIT (2–SACK SLURRY).
8. FLEXIBLE INNERDUCT, MULE TAPE, AND LOCATE WIRE SHALL BE INSTALLED AT TIME OF CONDUIT INSTALLATION AND SHALL TERMINATE AT EACH PULL BOX LOCATED ON PLANS.
9. IF FIBER IS BEING INSTALLED IN EXISTING CONDUIT AND INNERDUCT IS NOT PRESENT, THE 3 CHAMBER FLEXIBLE INNERDUCT SHALL BE INSTALLED PRIOR TO FIBER INSTALLATION.
10. TRENCH UNDER PAVEMENT OR SIDEWALK SHALL REQUIRE MINIMUM ONE–SACK SLURRY (DIRECTED BY CITY ENGINEER OR DESIGNEE) AND BACKFILL PER CITY OF VISALIA EXCAVATION STANDARD DRAWINGS.
11. FIBER INSTALLATION AND TESTING SHALL CONFORM TO THE CITY OF VISALIA STANDARDS AND SPECIFICATIONS.
12. IN CASES WHERE FIBER IS NOT BEING INSTALLED (I.E., CONDUIT ONLY INSTALLATIONS), THE FLEXIBLE INNERDUCT SHALL NOT BE INSTALLED.
13. WHERE CONDUIT IS PLACED IN AN OPEN TRENCH, IT SHALL NOT DEVIATE MORE THAN ONE INCH PER FOOT (1":12" MAX.) IN EITHER THE HORIZONTAL OR VERTICAL PLANES.
14. CONDUIT RUNS SHALL FOLLOW THE MOST DIRECT ROUTE POSSIBLE WITH NO MORE THAN TWO 90° BENDS BETWEEN PULL POINTS AND NO MORE THAN A TOTAL OF 270° OF BEND BETWEEN PULL POINTS.
15. NO MORE THAN ONE WEEK PRIOR TO THE INSTALLATION OF ANY CABLE, ALL NEW AND EXISTING CONDUIT RUNS IN WHICH CABLE IS TO BE INSTALLED SHALL BE CLEARED BY PULLING A METAL–DISC MANDREL OF 90% DIAMETER OF THE CONDUIT.
16. WHEN CONDUIT IS TRENCHED UNDER ROADWAY PAVEMENT, THERE SHALL BE SUFFICIENT VERTICAL CLEARANCE BETWEEN CONDUIT AND PAVEMENT STRUCTURAL SECTION AS DIRECTED BY THE CITY ENGINEER.

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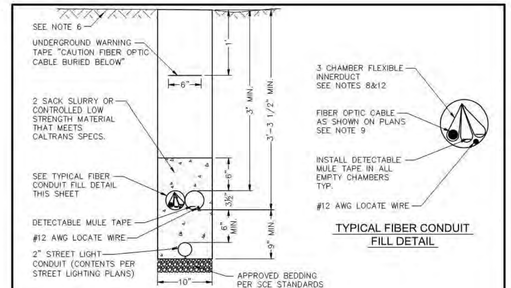
TYPICAL FIBER TRENCH DETAILS | REVISIONS 08/24/16 BK 2016 | TE–8

TYPICAL FIBER TRENCH DETAILS | TE-8



(2) 3" PVC CONDUIT OPEN TRENCH INSTALLATION

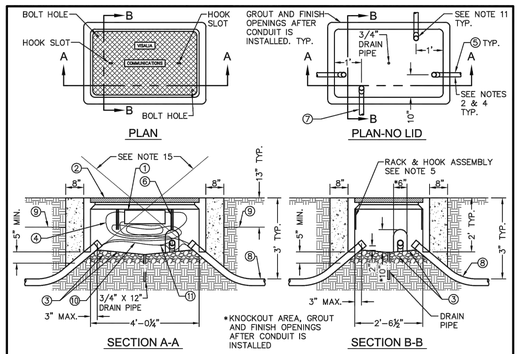
NOTES:

1. CONDUIT CONTENTS ARE ORIENTED ASSUMING THE SECTION FACING IN THE DIRECTION OF TRAVEL FOR THE MAJOR ARTERIAL.
2. ALL SPOIL MATERIAL SHALL BE REMOVED OFFSITE BY THE CONTRACTOR.
3. AREA SHALL BE RETURNED TO EXISTING GRADE.
4. CONDUIT COUPLINGS SHALL BE STAGGERED.
5. #12 AWG LOCATE WIRE SHALL BE INSTALLED IN ALL CONDUITS. LEAVE A 10 FOOT LOOP OF WIRE IN A SMALL JUNCTION BOX (CHRISTY FIBERLYTE FL9 OR APPROVED EQUAL) WITHIN 5 FEET OF THE CONTROLLER CABINET. DETECTABLE MULE TAPE SHALL BE INSTALLED IN ALL UNUSED CONDUITS AND FLEXIBLE INNERDUCT CHAMBERS.
6. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT TO 95% OF MAXIMUM DENSITY.
7. CONTROLLED LOW STRENGTH MATERIAL REQUIRED WHEN TRUNK AND/OR BRANCH FIBER–OPTIC CABLES INSTALLED IN CONDUIT.
8. FLEXIBLE INNERDUCT, MULE TAPE, AND LOCATE WIRE SHALL BE INSTALLED AT TIME OF CONDUIT INSTALLATION AND SHALL TERMINATE AT EACH PULL BOX LOCATED ON PLANS.
9. IF FIBER IS BEING INSTALLED IN EXISTING CONDUIT AND INNERDUCT IS NOT PRESENT, THE 3 CHAMBER FLEXIBLE INNERDUCT SHALL BE INSTALLED PRIOR TO FIBER INSTALLATION.
10. TRENCH UNDER PAVEMENT OR SIDEWALK SHALL REQUIRE MINIMUM ONE–SACK SLURRY (DIRECTED BY CITY ENGINEER OR DESIGNEE) BACKFILL PER CITY OF VISALIA EXCAVATION STANDARD DRAWINGS.
11. FIBER INSTALLATION AND TESTING SHALL CONFORM TO THE CITY OF VISALIA STANDARDS AND SPECIFICATIONS.
12. IN CASES WHERE FIBER IS NOT BEING INSTALLED (I.E., CONDUIT ONLY INSTALLATIONS), THE FLEXIBLE INNERDUCT SHALL NOT BE INSTALLED.
13. WHERE CONDUIT IS PLACED IN AN OPEN TRENCH, IT SHALL NOT DEVIATE MORE THAN ONE INCH PER FOOT (1":12" MAX.) IN EITHER THE HORIZONTAL OR VERTICAL PLANES.
14. CONDUIT RUNS SHALL FOLLOW THE MOST DIRECT ROUTE POSSIBLE WITH NO MORE THAN TWO 90° BENDS BETWEEN PULL POINTS AND NO MORE THAN A TOTAL OF 270° OF BEND BETWEEN PULL POINTS.
15. NO MORE THAN ONE WEEK PRIOR TO THE INSTALLATION OF ANY CABLE, ALL NEW AND EXISTING CONDUIT RUNS IN WHICH CABLE IS TO BE INSTALLED SHALL BE CLEARED BY PULLING A METAL–DISC MANDREL OF 90% DIAMETER OF THE CONDUIT.

APPROVED BY: CITY ENGINEER R.P.E. 81734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

TYPICAL FIBER AND STREET LIGHTING JOINT TRENCH DETAIL | REVISIONS 08/24/16 BK 2016 | TE–9

TYPICAL FIBER & STREET LIGHTING JOINT TRENCH DETAIL | TE-9



SECTION A-A

SECTION B-B

NOTE: STRICTER REQUIREMENTS AS DIRECTED BY THE CITY ENGINEER IF PULL BOX IS WITHIN ROADWAY.

LEGEND:

① FIBER OPTIC CABLE SPLICE CLOSURE.

② FIBER OPTIC SPLICE VAULT LID.

③ 1.5 INCH MAXIMUM COARSE AGGREGATE WITH 2 INCHES GROUT COVER OVER THE AGGREGATE. THE GROUT COVER SHALL BE SLOPED TOWARD THE DRAIN FOR DRAINAGE.

④ FIBER OPTIC CABLE. COIL AS REQUIRED.

⑤ PROPOSED SMFO BRANCH OR TRUNKLINE CONDUIT, IF NEEDED SEE PLANS

⑥ RACK & HOOK ASSEMBLY. SEE NOTE 5 ON TYPICAL COMMUNICATIONS VAULT INSTALLATION NOTES STANDARD DRAWING

⑦ TRAFFIC SIGNAL CONDUIT TYP. IF NEEDED. SEE PLANS.

⑧ 45 DEGREE ELBOW, 36" RADIUS MIN. ELBOW AND COUPLING MAY NOT BE NECESSARY FOR NEW CONDUIT INSTALLED BY DIRECTIONAL BORING. NEW CONDUIT INSTALLED BY DIRECTIONAL DRILLING SHALL ENTER SPLICE VAULT WITH BENDING RADIUS OF 36" MIN. SEE NOTE 15.

⑨ WARNING TAPE. FOR NEW CONDUIT INSTALLED BY TRENCHING

⑩ COIL 3 FEET OF TRACER WIRE.

⑪ SPLICE TRACER WIRE PER CALTRANS STANDARD SPECIFICATIONS FOR CONDUCTOR SPLICING.

APPROVED BY: CITY ENGINEER R.P.E. 81734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

TYPICAL COMMUNICATIONS VAULT INSTALLATION 1 OF 2 | REVISIONS 09/13/16 BK 2016 | TE–10

TYPICAL COMMUNICATIONS VAULT INSTALLATION 1 OF 2 | TE-10

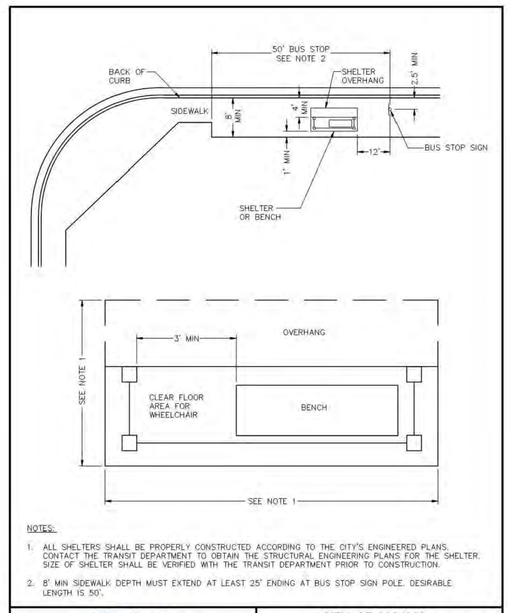
TYPICAL COMMUNICATIONS VAULT INSTALLATION NOTES:

1. TRUNKLINE CONDUIT(S) FROM THE TYPICAL BORE OR TRENCH SECTION SHOULD NOT DEFLECT BY MORE THAN ONE FOOT PER 10 FEET FROM THE ALIGNMENT PRECEDING OR FOLLOWING PULL BOX/SPLICE VAULT ENTRANCE/EXIT.
2. EXCESS CONDUIT FOR ALL CONDUIT ENDS SHALL BE CUT BACK TO PROVIDE STUB ENDS OF 1" MINIMUM TO 2" MAXIMUM.
3. SEE PLAN SHEETS FOR NUMBER AND SIZE OF CONDUIT.
4. IF MORE THAN 3 CONDUITS ARE REQUIRED IN SAME KNOCKOUT, KNOCKOUT SHALL BE WIDENED TO 1/2" MORE THAN THE COMBINED CONDUIT WIDTH.
5. ALL SPLICE VAULTS SHALL BE FURNISHED WITH TWO RACKS AND HOOKS INSTALLED ON EACH OF THE TWO LONG SIDES.
6. TRUNKLINE CONDUITS SHALL ENTER THROUGH KNOCKOUTS.
7. SPLICE VAULTS, VAULT EXTENSION, AND VAULT LIDS SHALL BE CHRISTY N48 UTILITY BOX OR APPROVED EQUIVALENT, AND SUPPORT MINIMUM TEST LOAD OF 12,500 LBS. IF SPLICE VAULT IS LOCATED IN TRAVEL WAY, SPLICE VAULT AND LID SHALL CONFORM VERTICAL PROOF LOAD STRENGTH REQUIREMENT AS PER CALTRANS STANDARD SPECIFICATIONS, SECTION 86–2.07.
8. LOCKING MECHANISM SHALL BE PROVIDED FOR VAULT LID. TWO 3/8" PENTA HEAD BOLTS AT 90° SHALL BE USED, ONE 3/8" PENTA HEAD SOCKET AND RATCHET SHALL BE PROVIDED TO CITY OF VISALIA FOR EVERY 10 SPLICE VAULTS.
9. "VISALIA COMMUNICATIONS" SHALL BE CASTED ON THE TOP FACE OF ALL VAULT LIDS.
10. CUT CONDUIT, DE–BURR, AND RE–THREAD PRIOR TO INSTALLING FIBER OPTIC CABLE AND/OR OTHER CABLES/CONDUCTORS. ALL METALLIC CONDUITS SHALL HAVE THREADED METALLIC BUSHINGS. ALL PVC AND HDPE CONDUITS SHALL HAVE BELL ENDS.
11. FURNISH AND INSTALL CAPS OR DUCT PLUGS FOR ALL UNUSED CONDUIT.
12. SPLICE CLOSURE SHALL BE ATTACHED TO THE RACK AND HOOK SYSTEM ON THE SAME SIDE AS THE FIBER OPTIC CABLE. THE SPLICE CLOSURE SHALL BE ANGLED TO FACILITATE MINIMUM BENDING RADIUS IN THE CABLE.
13. IF APPLICABLE, SPLICE VAULT HEIGHT ABOVE EXISTING DIRT GRADE SHALL PERMIT 1" OF FUTURE SURFACE LANDSCAPING. WHEN SPLICE VAULT IS INSTALLED IN EXISTING SIDEWALK, SPLICE VAULT LID SHALL SIT FLUSH WITH THE SIDEWALK. COORDINATE WITH ENGINEER WHERE THIS APPLIES.
14. EACH FIBER OPTIC SPLICE VAULT SHALL BE EQUIPPED WITH 50' MIN. OF SLACK IN THE TRUNKLINE CABLE AND 25' MIN. OF SLACK IN THE BRANCH CABLE ON EACH SIDE OF FIBER OPTIC SPLICE CLOSURE. (I.E. THE TRUNKLINE CABLE TYPICALLY WILL HAVE 50' OF SLACK AND THE BRANCH CABLE WILL TYPICALLY HAVE 25' OF SLACK.)
15. BOTTOM OF CONDUIT CENTERLINE SHALL BE ALIGNED TO EXIT TOP OF SPLICE VAULT TO FACILITATE CABLE PULLING.
16. MINIMUM SPLICE VAULT DEPTH SHALL BE 2'. IF NECESSARY, AN EXTENSION MAY BE USED TO MEET THIS REQUIREMENT.

APPROVED BY: CITY ENGINEER R.P.E. 81734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

TYPICAL COMMUNICATIONS VAULT INSTALLATION 2 OF 2 | REVISIONS 09/15/16 BK 2016 | TE–11

TYPICAL COMMUNICATIONS VAULT INSTALLATION 2 OF 2 | TE-11



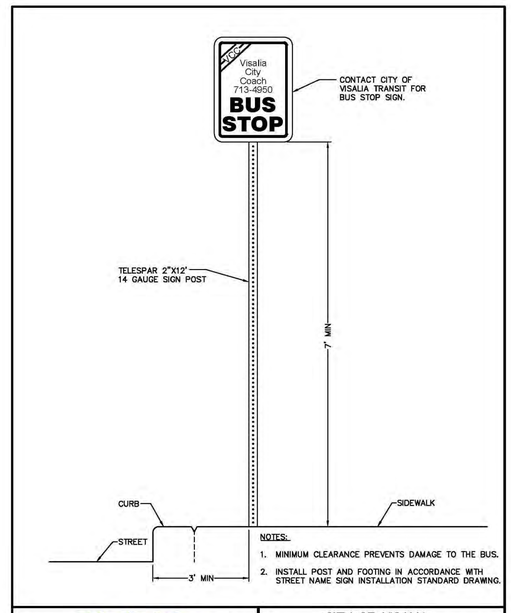
NOTES:

1. ALL SHELTERS SHALL BE PROPERLY CONSTRUCTED ACCORDING TO THE CITY'S ENGINEERED PLANS. CONTACT THE TRANSIT DEPARTMENT TO OBTAIN THE STRUCTURAL ENGINEERING PLANS FOR THE SHELTER. SIZE OF SHELTER SHALL BE VERIFIED WITH THE TRANSIT DEPARTMENT PRIOR TO CONSTRUCTION.
2. 8' MIN SIDEWALK DEPTH MUST EXTEND AT LEAST 25' ENDING AT BUS STOP SIGN POLE. DESIRABLE LENGTH IS 50'.

APPROVED BY: CITY ENGINEER R.P.E. 81734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

BUS SHELTER AND SIGN LOCATION WITH WHEELCHAIR AREA | REVISIONS 09/27/13 BK 2016 | TR–1

BUS SHELTER & SIGN LOCATION W/ WHEELCHAIR AREA | TR-1



NOTES:

1. MINIMUM CLEARANCE PREVENTS DAMAGE TO THE BUS.
2. INSTALL POST AND FOOTING IN ACCORDANCE WITH STREET NAME SIGN INSTALLATION STANDARD DRAWING.

APPROVED BY: CITY ENGINEER R.P.E. 81734 09/16/16 DATE — CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS

BUS STOP SIGN | REVISIONS 09/15/16 BK 2016 | TR–2

BUS STOP SIGN | TR-2

NO.	DATE	DESCRIPTION

324 S. SANTA FE, STE A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

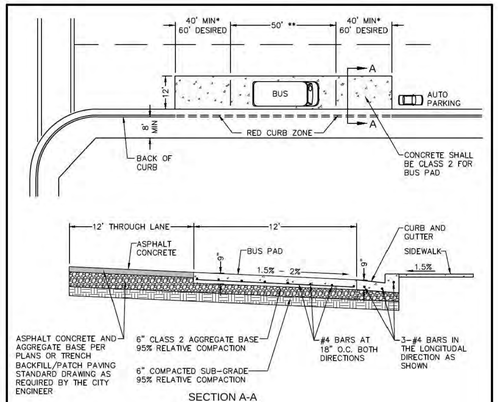
PREPARED BY: 4CREEKS

CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE
WIDENING & IMPROVEMENTS
CIVIL DETAILS

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 36 OF 59



SECTION A-A

NOTES:

1. CONCRETE FOR BUS PAD SHALL BE CLASS 2.
2. CONCRETE FOR SIDEWALK AND CURB AND GUTTER SHALL BE CLASS 2 OR CLASS 3.
3. REINFORCING BARS SHALL BE DEFORMED STEEL BARS AND SHALL BE GRADE 40 MINIMUM. REINFORCING BARS SHALL BE FREE OF RUST OR DIRT AND SHALL BE THOROUGHLY CLEANED BEFORE PLACEMENT.
4. REINFORCING BARS SHALL HAVE A MINIMUM OF 3" OF CLEAR COVERAGE.
5. WEAKEND PLANE JOINTS SHALL BE PLACED IN THE BUS PAD AT 10'-15' CENTERS, MINIMUM DEPTH OF 2". JOINTS IN CURB AND GUTTER SHALL ALIGN WITH JOINTS IN BUS PAD WHERE POSSIBLE.

* 40' MINIMUM FOR SPEED LIMIT 30 MPH AND UNDER. 60' DESIRABLE FOR SPEED LIMIT ABOVE 30 MPH.

** FOR EACH ADDITIONAL PASS THROUGH BUS BERTH ADD 50', AND FOR EACH ADDITIONAL LAYOVER BUS BERTH ADD 80'.

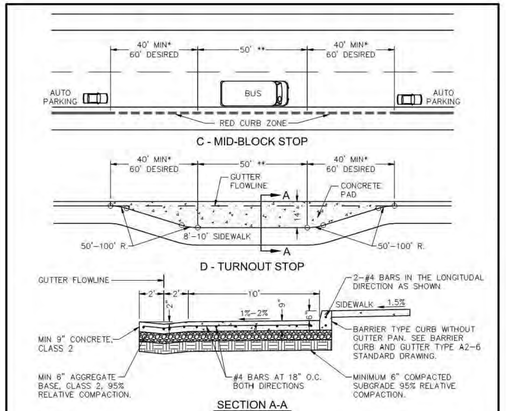
APPROVED BY: _____ CITY ENGINEER R.P.E. 76065 09/27/13 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

BUS PAD

REVISIONS 09/27/13 BK 2013

TR-3



C - MID-BLOCK STOP

D - TURNOUT STOP

SECTION A-A

NOTES:

1. CONCRETE FOR VEE GUTTER AND BUS PAD SHALL BE CLASS 2.
2. CONCRETE FOR SIDEWALK AND CURB AND GUTTER SHALL BE CLASS 2 OR CLASS 3.
3. REINFORCING BARS SHALL BE DEFORMED STEEL BARS AND SHALL BE GRADE 40 MINIMUM. REINFORCING BARS SHALL BE FREE OF RUST OR DIRT AND SHALL BE THOROUGHLY CLEANED BEFORE PLACEMENT.
4. REINFORCING BARS SHALL HAVE A MINIMUM OF 3" OF CLEAR COVERAGE.
5. WEAKEND PLANE JOINTS SHALL BE PLACED IN THE BUS PAD AT 12'-15' CENTERS, MINIMUM DEPTH OF 2". JOINTS IN CURB AND GUTTER SHALL ALIGN WITH JOINTS IN BUS PAD WHERE POSSIBLE.

* 40' MINIMUM FOR SPEED LIMIT 30 MPH AND UNDER. 60' DESIRABLE FOR SPEED LIMIT ABOVE 30 MPH.

** FOR EACH ADDITIONAL PASS THROUGH BUS BERTH ADD 50', AND FOR EACH ADDITIONAL LAYOVER BUS BERTH ADD 80'.

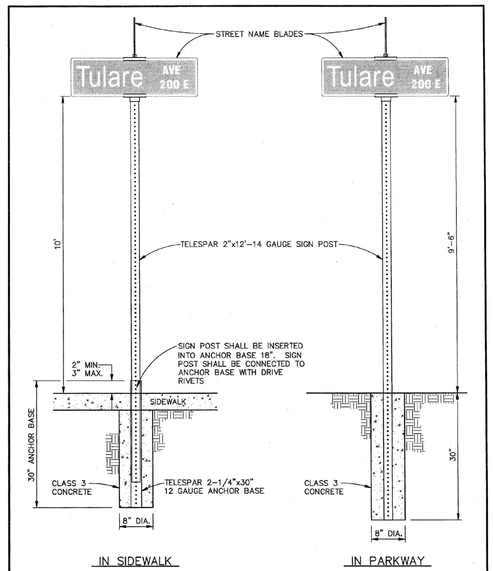
APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

BUS STOPS C & D

REVISIONS 09/27/13 BK 2016

TR-5



IN SIDEWALK IN PARKWAY

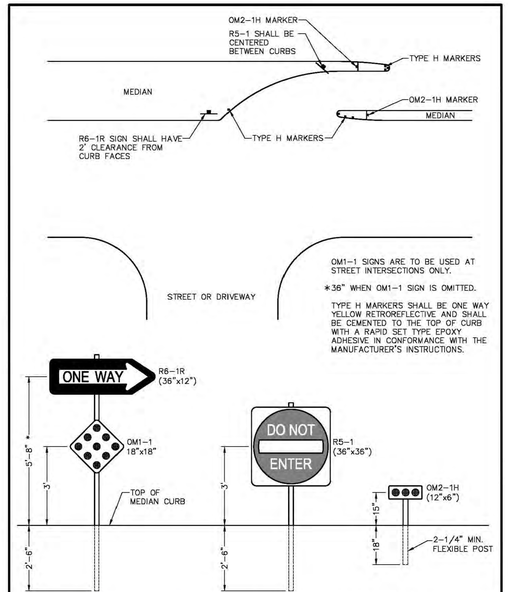
APPROVED BY: _____ PUBLIC WORKS DIRECTOR R.C.E. 50022 3/3/08 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

STREET NAME SIGN INSTALLATION

REVISIONS 12/18/07

TS-1



APPROVED BY: _____ CITY ENGINEER R.P.E. 81734 09/16/16 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

MEDIAN ISLAND OPENING SIGNING

REVISIONS 08/25/16 BK 2016

TS-8

BUS PAD	TR-3	BUS STOPS C & D	TR-5	MEDIAN ISLAND OPENING SIGNING	TS-1	MEDIAN ISLAND OPENING SIGNING	TS-8

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER MARK HOLLOWAY 76065 STATE OF CALIFORNIA

PREPARED BY:
4CREEKS
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215

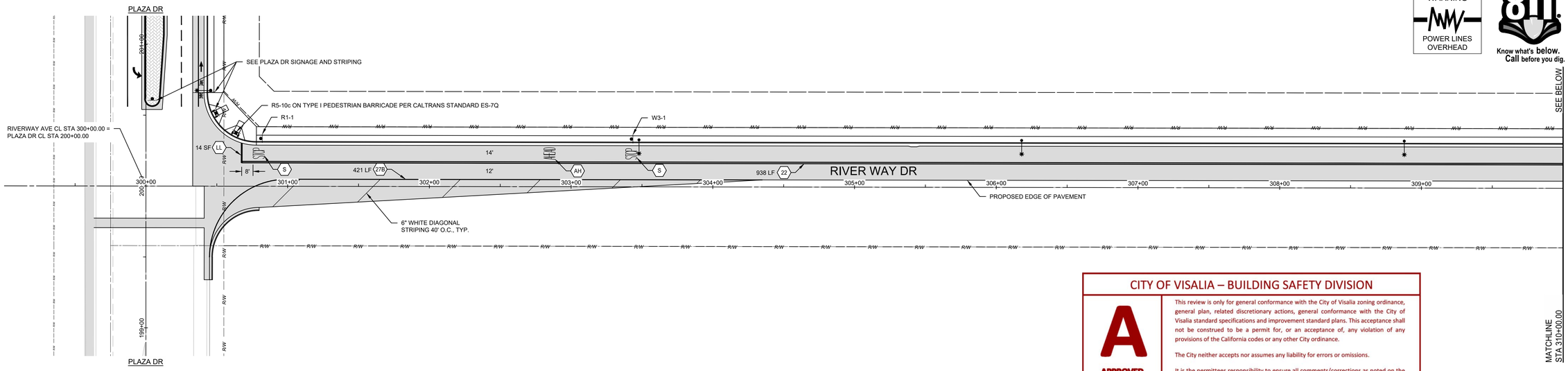
CHK BY: KM
DRW BY: MH

CITY OF VISALIA
315 E. ACEQUIA AVE.
VISALIA, CA 93291

RIGGIN AVENUE WIDENING & IMPROVEMENTS

CIVIL DETAILS

PROJ. NO. 20205
DATE: 2/1/22
DESIGN BY: KM | DRAWN BY: MH
SCALE: AS SHOWN
SHEET 37 OF 59



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POWER LINES OVERHEAD

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CITY OF VISALIA – BUILDING SAFETY DIVISION

A
APPROVED W/ CORRECTIONS

This review is only for general conformance with the City of Visalia zoning ordinance, general plan, related discretionary actions, general conformance with the City of Visalia standard specifications and improvement standard plans. This acceptance shall not be construed to be a permit for, or an acceptance of, any violation of any provisions of the California codes or any other City ordinance.

The City neither accepts nor assumes any liability for errors or omissions.

It is the permittees responsibility to ensure all comments/corrections as noted on the plan set are performed during the course of construction.

GENERAL SIGNING AND PAVEMENT MARKING NOTES

1. COMPLY WITH LATEST VERSION OF STATE STANDARD PLANS AND CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
2. ALL PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND CONFORM WITH CITY STD. SPECIFICATIONS SECTIONS 46–2.1 THROUGH 2.4.
3. WHERE PROPOSED STRIPING OVERLAPS WITH EXISTING PAVEMENT MARKINGS, REMOVE EXISTING PAVEMENT MARKINGS PER CITY STD. SPECIFICATIONS SECTION 15–2.2C.
4. STRIPING LENGTHS SHOWN AS APPROXIMATE TO NEAREST FOOT. FIELD CONDITIONS MAY NECESSITATE ADJUSTMENTS TO PRODUCE A COMPLETE PROJECT.
5. ALL TRAFFIC SIGNS SHALL BE FURNISHED AND INSTALLED PER CA MUTCD, CITY SPECIFICATION 46–2.5, AND CITY STANDARD DRAWINGS TS–1 THROUGH TS–9.
6. LANE WIDTHS SHOWN BETWEEN PAVEMENT MARKING CENTERLINES AND CURB FLOWLINES, UNLESS OTHERWISE NOTED.
7. STRIPING DETAILS PER STATE STANDARD PLANS A20A–A20E.
8. ARROW DETAILS PER STATE STANDARD PLAN A24A, CENTERED IN TRAFFIC LANE.
9. PAVEMENT MARKING WORDS PER STATE STANDARD PLAN A24D–A24E, CENTERED IN TRAFFIC LANE.
10. LIMIT LINES PER STATE STANDARD PLAN A24E.

SIGNING AND PAVEMENT MARKING LEGEND

## LF	INSTALL DETAIL NUMBER, LENGTH AS INDICATED.
I III (L/R) VI (L/R)	INSTALL ARROW, TYPE AND DIRECTION AS INDICATED.
LL ## SF	INSTALL 1'-WIDE LIMIT LINE, AREA AS INDICATED.
AH	INSTALL "AHEAD" WHITE WORD.
S	INSTALL "STOP" WHITE WORD.
SG	INSTALL "SIGNAL" WHITE WORD.
BL	INSTALL "BIKE LANE" WHITE WORDS AND ARROW.
BD	INSTALL BICYCLE DETECTOR PAVEMENT MARKING.
(E) ##–#	PROTECT IN PLACE EXISTING SIGN, DESIGNATION PER CA MUTCD.
(R) ##–#	RELOCATED SIGN, DESIGNATION PER CA MUTCD.
##–#	FURNISH AND INSTALL SIGN, DESIGNATION PER CA MUTCD.

SCALE IN FEET
0 15 30 60

ISSUE
FOR CONSTRUCTION
01/11/2022

NO.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER MATTHEW J. BARNES No. 79,145 STATE OF CALIFORNIA
DATE SIGNED: 01/11/22

VISALIA LOGISTICS CENTER II OFF-SITE
IMPROVEMENT PLANS
CAPROCK ACQUISITIONS
CITY OF VISALIA, CA
SIGNAGE & STRIPING
RIVER WAY DR

EST. 1950
PROVOST & PRITCHARD
CONSULTING GROUP
An Employee Owned Company
1301 NORTH GARDEN STREET
VISALIA, CALIFORNIA 93291-6452
(559) 636-1166 FAX (559) 636-1177
www.ppeng.com

DESIGN ENGINEER: MATTHEW J. BARNES
LICENSE NO: C79145
DRAFTED BY: JMN
CHECKED BY: MJB
DATE: 01/11/22
JOB NO: 291621001
PROJECT NO: 291621001
PHASE:
0 1"
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.
SHEET 33
33 OF 71

1/12/2022 4:58 PM G:\CapRock Acquisitions-291621001\Vis Logistics Ctr II\300 CAD\340 Sheet Sets\ORSheet\A_SignStripe\32 RIVER WAY DR.dwg -Nic.Lowell

COV Plan Check Intake Date 1/13/2022

CITY OF VISALIA – BUILDING SAFETY DIVISION

A

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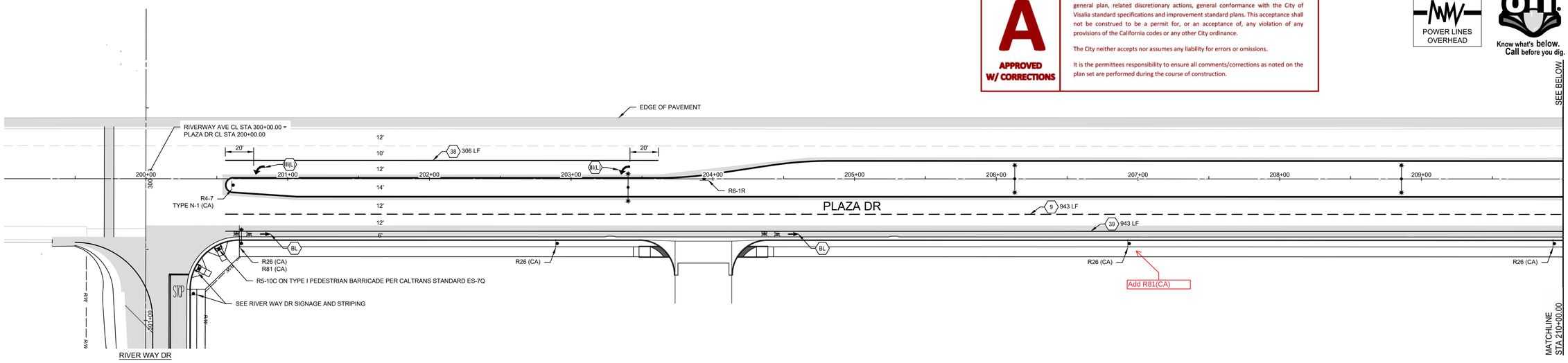

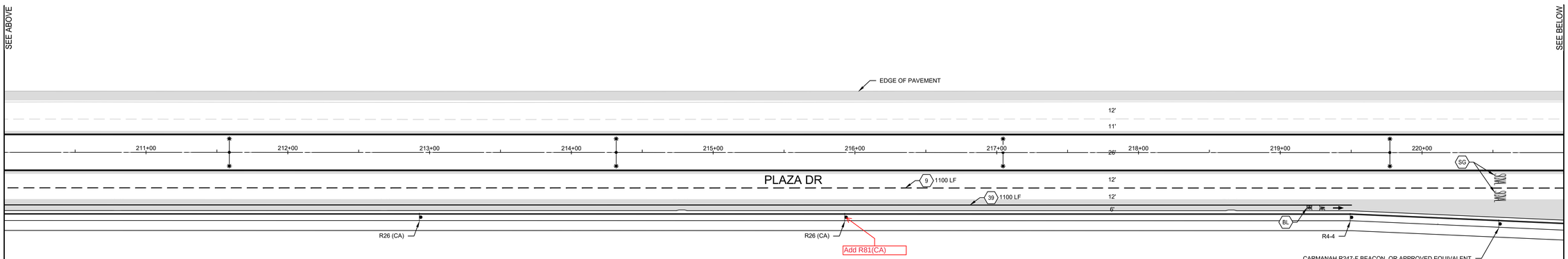

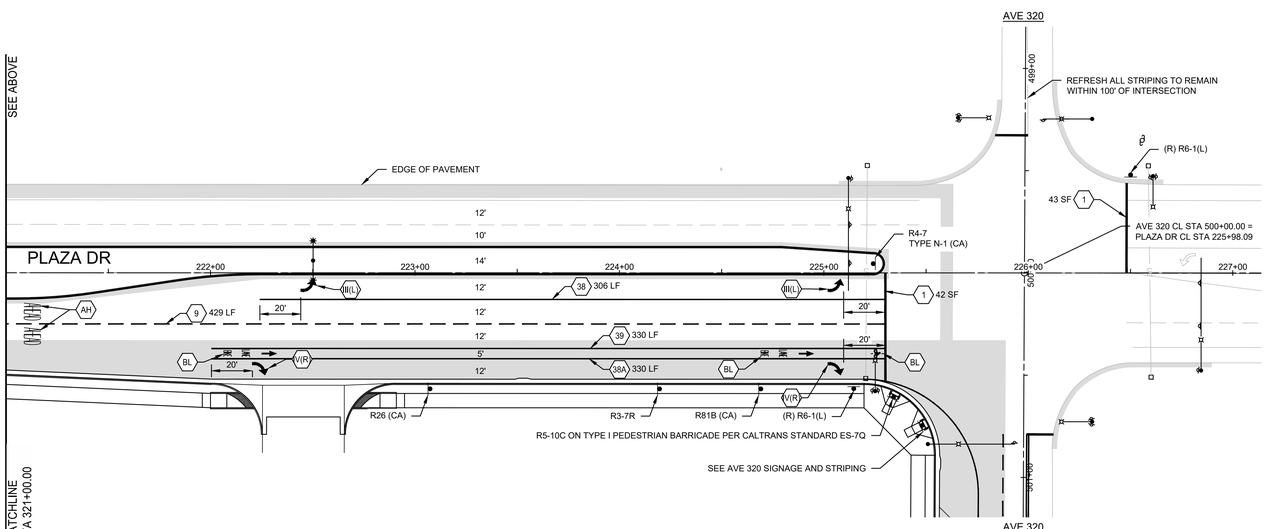

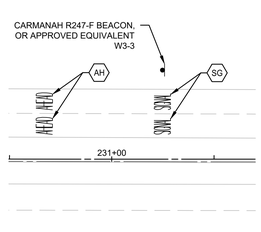

GENERAL SIGNING AND PAVEMENT MARKING NOTES

1. COMPLY WITH LATEST VERSION OF STATE STANDARD PLANS AND CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
2. ALL PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND CONFORM WITH CITY STD. SPECIFICATIONS SECTIONS 46–2.1 THROUGH 2.4.
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10. LIMIT LINES PER STATE STANDARD PLAN A24E.

SIGNING AND PAVEMENT MARKING LEGEND

## LF	INSTALL DETAIL NUMBER, LENGTH AS INDICATED.
I III (L/R) VII (L/R)	INSTALL ARROW, TYPE AND DIRECTION AS INDICATED.
LL ## SF	INSTALL 1'-WIDE LIMIT LINE, AREA AS INDICATED.
AH	INSTALL "AHEAD" WHITE WORD.
S	INSTALL "STOP" WHITE WORD.
SG	INSTALL "SIGNAL" WHITE WORD.
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SCALE IN FEET
0 15 30 60

ISSUE
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01/11/2022

NO.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER MATTHEW J. BARNES No. 79145 CIVIL STATE OF CALIFORNIA
DATE SIGNED: 01/11/22

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EST 1956
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ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.
SHEET 34
34 OF 71

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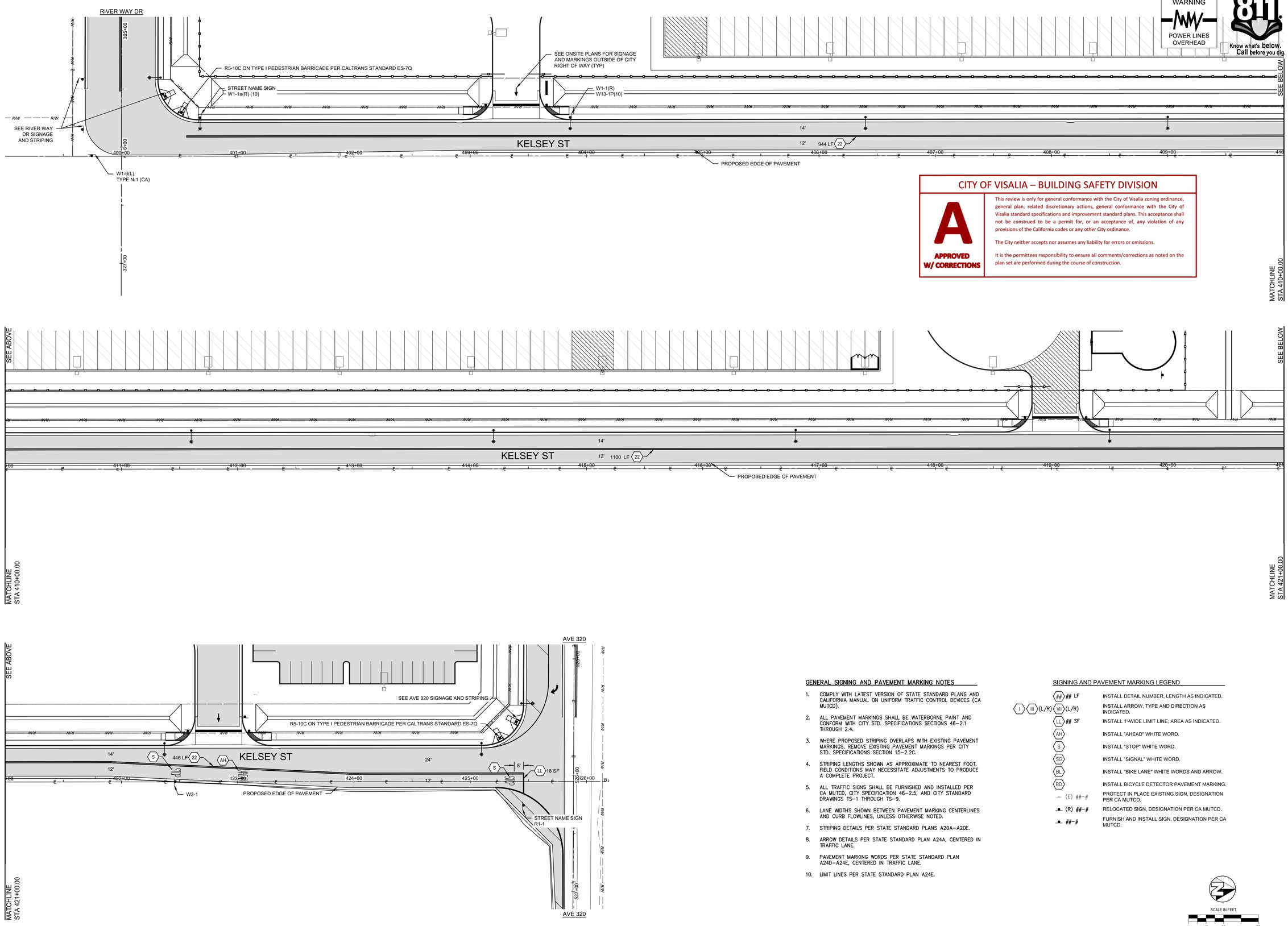
COV Plan Check Intake Date 1/13/2022



WARNING
POWER LINES OVERHEAD

811 Know what's below. Call before you dig.

CITY OF VISALIA – BUILDING SAFETY DIVISION

A
APPROVED W/ CORRECTIONS

This review is only for general conformance with the City of Visalia zoning ordinance, general plan, related discretionary actions, general conformance with the City of Visalia standard specifications and improvement standard plans. This acceptance shall not be construed to be a permit for, or an acceptance of, any violation of any provisions of the California codes or any other City ordinance.

The City neither accepts nor assumes any liability for errors or omissions.

It is the permittees responsibility to ensure all comments/corrections as noted on the plan set are performed during the course of construction.

GENERAL SIGNING AND PAVEMENT MARKING NOTES

1. COMPLY WITH LATEST VERSION OF STATE STANDARD PLANS AND CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
2. ALL PAVEMENT MARKINGS SHALL BE WATERBORNE PAINT AND CONFORM WITH CITY STD. SPECIFICATIONS SECTIONS 46–2.1 THROUGH 2.4.
3. WHERE PROPOSED STRIPING OVERLAPS WITH EXISTING PAVEMENT MARKINGS, REMOVE EXISTING PAVEMENT MARKINGS PER CITY STD. SPECIFICATIONS SECTION 15–2.2C.
4. STRIPING LENGTHS SHOWN AS APPROXIMATE TO NEAREST FOOT. FIELD CONDITIONS MAY NECESSITATE ADJUSTMENTS TO PRODUCE A COMPLETE PROJECT.
5. ALL TRAFFIC SIGNS SHALL BE FURNISHED AND INSTALLED PER CA MUTCD, CITY SPECIFICATION 46–2.5, AND CITY STANDARD DRAWINGS TS–1 THROUGH TS–9.
6. LANE WIDTHS SHOWN BETWEEN PAVEMENT MARKING CENTERLINES AND CURB FLOWLINES, UNLESS OTHERWISE NOTED.
7. STRIPING DETAILS PER STATE STANDARD PLANS A20A–A20E.
8. ARROW DETAILS PER STATE STANDARD PLAN A24A, CENTERED IN TRAFFIC LANE.
9. PAVEMENT MARKING WORDS PER STATE STANDARD PLAN A24D–A24E, CENTERED IN TRAFFIC LANE.
10. LIMIT LINES PER STATE STANDARD PLAN A24E.

SIGNING AND PAVEMENT MARKING LEGEND

## ## LF	INSTALL DETAIL NUMBER, LENGTH AS INDICATED.
I III (L/R) VII (L/R)	INSTALL ARROW, TYPE AND DIRECTION AS INDICATED.
LL ## SF	INSTALL 1'-WIDE LIMIT LINE, AREA AS INDICATED.
AH	INSTALL "AHEAD" WHITE WORD.
S	INSTALL "STOP" WHITE WORD.
SG	INSTALL "SIGNAL" WHITE WORD.
BL	INSTALL "BIKE LANE" WHITE WORDS AND ARROW.
BD	INSTALL BICYCLE DETECTOR PAVEMENT MARKING.
(E) ##–#	PROTECT IN PLACE EXISTING SIGN, DESIGNATION PER CA MUTCD.
(R) ##–#	RELOCATED SIGN, DESIGNATION PER CA MUTCD.
##–#	FURNISH AND INSTALL SIGN, DESIGNATION PER CA MUTCD.

SCALE IN FEET
0 15 30 60

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ISSUE
FOR CONSTRUCTION
01/11/2022

NO.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER MATTHEW J. BARNES No. 79145 CIVIL STATE OF CALIFORNIA
DATE SIGNED: 01/11/22

VISALIA LOGISTICS CENTER II OFF-SITE
IMPROVEMENT PLANS
CAPROCK ACQUISITIONS
CITY OF VISALIA, CA
SIGNAGE & STRIPING
KELSEY ST

PROVOST & PRITCHARD
EST 1955
CONSULTING ENGINEERS
An Employee Owned Company
130 NORTH GARDEN STREET
VISALIA, CALIFORNIA 93291-6362
VOICE 559.636.1166 FAX 559.636.1177
www.ppeng.com

DESIGN ENGINEER: MATTHEW J. BARNES
LICENSE NO: C79145
DRAFTED BY: JMN | CHECKED BY: MJB
DATE: 01/11/22
JOB NO: 291621001
PROJECT NO: 291621001
PHASE:
0 1"
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.
SHEET 35
35 OF 71

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COV Plan Check Intake Date 1/13/2022

CITY OF VISALIA – BUILDING SAFETY DIVISION

A

APPROVED W/ CORRECTIONS

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PLAZA DR

REFRESH ALL STRIPING TO REMAIN WITHIN 100' OF INTERSECTION

L STA 499+98.39 = CL STA 226+00.00

16 SF

16 SF (REPAINT)

CARMANAH R247-F BEACON, OR APPROVED EQUIVALENT W3-3

CARMANAH R247-F BEACON, OR APPROVED EQUIVALENT W3-3

EXISTING EDGE OF PAVEMENT

AVE 320

267 LF 27B

821 LF 22

821 LF 9

433 LF 27B

129 LF 27B

6" WHITE DIAGONAL STRIPING 40' O.C., TYP.

R5-10C ON TYPE I PEDESTRIAN BARRICADE PER CALTRANS STANDARD ES-7Q

SEE PLAZA DR SIGNAGE AND STRIPING

SEE BELOW

MATCHLINE STA 509+00.00

SEE ABOVE

304 LF 27B

286 LF 27B

1100 LF 22

905 LF 9

341 LF 27B

195 LF 37B

28 LF 27B

W74(CA)

W73A(CA)

SEE ONSITE PLANS FOR SIGNAGE AND MARKINGS OUTSIDE OF CITY RIGHT OF WAY (TYP)

MATCHLINE STA 520+00.00

SEE ABOVE

R3-2

EXISTING EDGE OF PAVEMENT

550 LF 22

550 LF 37B

313 LF 27B

150 LF 38

266 LF 27B

33 SF

284 LF 27B

R3-7(R)

R5-10C ON TYPE I PEDESTRIAN BARRICADE PER CALTRANS STANDARD ES-7Q

SEE KELSEY SIGNAGE AND STRIPING

KELSEY ST

GENERAL SIGNING AND PAVEMENT MARKING NOTES

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10. LIMIT LINES PER STATE STANDARD PLAN A24E.

SIGNING AND PAVEMENT MARKING LEGEND

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SCALE IN FEET
0 15 30 60

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FOR CONSTRUCTION
01/11/2022

NO.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER MATTHEW J. BARNES No. 79145 STATE OF CALIFORNIA
DATE SIGNED: 01/11/22

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ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.
SHEET 36
36 OF 71

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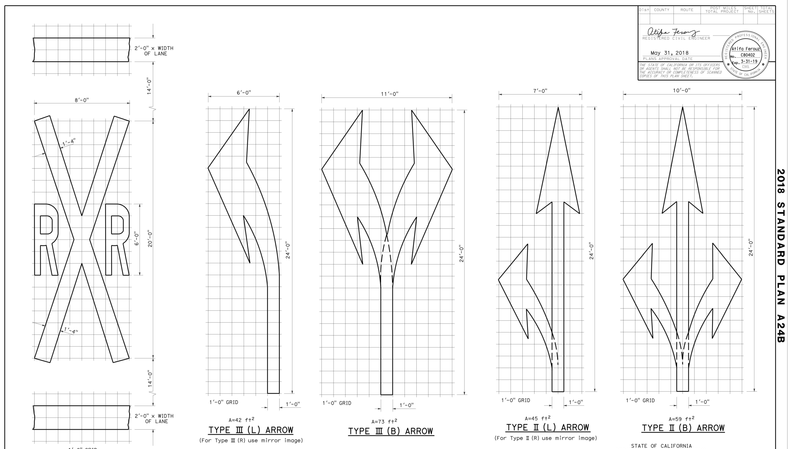
COV Plan Check Intake Date 1/13/2022

2018 STANDARD PLAN A24B



RAILROAD CROSSING SYMBOL

※ 70 ft² does not include the 2'-0" x variable width transverse lines.

TYPE III (L) ARROW

(For Type III (R) use mirror image)

TYPE III (B) ARROW

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

TYPE II (L) ARROW

(For Type II (R) use mirror image)

TYPE II (B) ARROW

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
ARROWS AND SYMBOLS

NO SCALE

A24B

2018 STANDARD PLAN A20A

CENTERLINES
(2 LANE HIGHWAYS)

DETAIL 1
DETAIL 2
~~DETAIL 3~~ DETAIL 3 DELETED
~~DETAIL 4~~ DETAIL 4 DELETED

LANELINES
(MULTILANE HIGHWAYS)

DETAIL 8
DETAIL 9
DETAIL 9A SEE NOTE
~~DETAIL 10~~ DETAIL 10 DELETED
DETAIL 11

LANELINES (Cont)
(MULTILANE HIGHWAYS)

DETAIL 12
DETAIL 12A SEE NOTE
~~DETAIL 13~~ DETAIL 13 DELETED
~~DETAIL 14~~ DETAIL 14 DELETED
~~DETAIL 14A~~ DETAIL 14A DELETED

NO PASSING ZONES-ONE DIRECTION

DETAIL 15
DETAIL 16
~~DETAIL 17~~ DETAIL 17 DELETED
DETAIL 18
DETAIL 19
~~DETAIL 20~~ DETAIL 20 DELETED

NOTE:
FOR FREEWAY APPLICATION ONLY

NO PASSING ZONES-TWO DIRECTION

DETAIL 21
DETAIL 22
~~DETAIL 23~~ DETAIL 23 DELETED

LEGEND
MARKERS
TYPE C RED-CLEAR RETROREFLECTIVE
TYPE D TWO-WAY YELLOW RETROREFLECTIVE
TYPE G ONE-WAY CLEAR RETROREFLECTIVE
TYPE H ONE-WAY YELLOW RETROREFLECTIVE

LINES
6" WHITE
6" YELLOW

TYPE C AND TYPE D

TYPE G AND TYPE H

RETROREFLECTIVE FACE

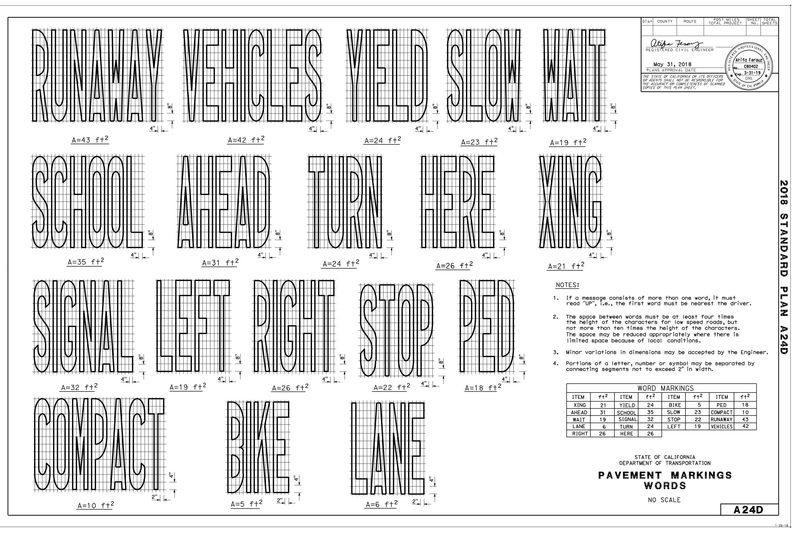
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS

NO SCALE

A20A

2018 STANDARD PLAN A24D



NOTES:

1. If a message consists of more than one word, it must read "UP", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.

WORD MARKINGS							
ITEM	ft²	ITEM	ft²	ITEM	ft²	ITEM	ft²
XING	21	YIELD	24	BIKE	5	PED	18
AHEAD	31	SCHOOL	35	SLOW	23	COMPACT	10
WAIT	19	SIGNAL	32	STOP	22	RUNAWAY	43
LANE	6	TURN	24	LEFT	19	VEHICLES	42
RIGHT	26	HERE	26				

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
WORDS

NO SCALE

A24D

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2018 REVISED STANDARD PLAN RSP A20B

LEFT EDGE LINES
(DIVIDED HIGHWAYS)
See Note

DETAIL 24
DETAIL 25
DETAIL 25A
DETAIL 25B
DETAIL 26
DETAIL 26A
DETAIL 26B
DETAIL 27

RIGHT EDGE LINES

~~DETAIL 27A~~ DETAIL 27A DELETED
DETAIL 27B

RIGHT EDGE LINE EXTENSION THROUGH INTERSECTIONS

DETAIL 27C

LEFT EDGE LINES NOTE:
On freeways use traffic stripe details with Type RY markers.

MEDIAN ISLANDS

DETAIL 28
DETAIL 29
~~DETAIL 30~~ DETAIL 30 DELETED

TWO-WAY LEFT TURN LANES

DETAIL 31
DETAIL 32
~~DETAIL 33~~ DETAIL 33 DELETED

LEGEND
MARKERS
TYPE D TWO-WAY YELLOW RETROREFLECTIVE
TYPE H ONE-WAY YELLOW RETROREFLECTIVE
TYPE RY RED-YELLOW RETROREFLECTIVE

LINES
6" WHITE
6" YELLOW

INTERSECTION TREATMENTS

TO ACCOMPANY PLANS DATED

DETAIL 34
DETAIL 34A
DETAIL 35
DETAIL 35A

MARKER DETAILS

TYPE RY AND TYPE D

TYPE H

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND
TRAFFIC LINES TYPICAL DETAILS

NO SCALE

RSP A20B DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN A20B DATED MAY 31, 2018 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A20B

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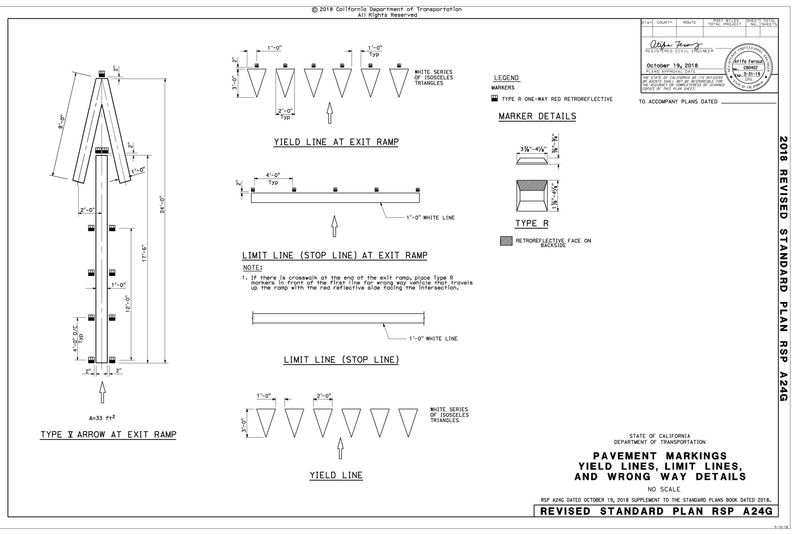
2018 REVISED STANDARD PLAN RSP A24G



TYPE X ARROW AT EXIT RAMP

NOTE:
1. If there is crosswalk at the end of the exit ramp, place Type R markers in front of the first line for wrong way vehicle that travels up the ramp with the red retroflective side facing the intersection.

LEGEND
MARKERS
TYPE R ONE-WAY RED RETROREFLECTIVE

MARKER DETAILS

TYPE R

RETROREFLECTIVE FACE ON BACKSIDE

TO ACCOMPANY PLANS DATED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
YIELD LINES, LIMIT LINES,
AND WRONG WAY DETAILS

NO SCALE

RSP A24G DATED OCTOBER 19, 2018 SUPPLEMENT TO THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A24G

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2018 REVISED STANDARD PLAN RSP A20D

CHANNELIZING LINE

DETAIL 38
DETAIL 38A
DETAIL 38B
~~DETAIL 38C~~ DETAIL 38C DELETED
DETAIL 38D
(EXIT RAMPS ONLY)

BIKE LANE LINE

DETAIL 39

INTERSECTION LINE
BIKE LANE

DETAIL 39A

LANE LINE EXTENSIONS THROUGH INTERSECTIONS

~~DETAIL 40A~~ DETAIL 40A DELETED
DETAIL 40

CENTER LINE EXTENSIONS THROUGH INTERSECTIONS

~~DETAIL 41A~~ DETAIL 41A DELETED
DETAIL 41

LEGEND
MARKERS
TYPE C RED-CLEAR RETROREFLECTIVE
TYPE G ONE-WAY CLEAR RETROREFLECTIVE
6" YELLOW LINE

MARKER DETAILS

TYPE C

TYPE G

RETROREFLECTIVE FACE

DETAIL FOR RECESSED TRAFFIC STRIPE
See Notes A and B.

RECESSED NOTES:
A. See typical traffic line details for pavement marking patterns.
B. See standard specifications for recess depth and recess striping material thickness.

SECTION B-B

SECTION A-A

PLAN TYPE 1

PLAN TYPE 2

RECESS DETAIL FOR RETROREFLECTIVE PAVEMENT MARKER
See Note 4

TYPE C, TYPE RY, AND TYPE D

TYPE G, TYPE R, AND TYPE H

RETROREFLECTIVE PAVEMENT MARKER FOR RECESSED INSTALLATION
See Notes 1 and 2.

RECESSED MARKER NOTES:
1. See typical traffic line details for marker patterns to be used with recessed pavement markers.
2. The retroreflective pavement markers shown in these recess details are not to be used for non-recessed installations.
3. The top of pavement marker for the type recesses shall be 0 to ⅛" below the pavement surface.
4. Use Type I recess for pavement markers with one-way retroreflective face. Use Type II recess for pavement markers with two-way retroreflective face.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

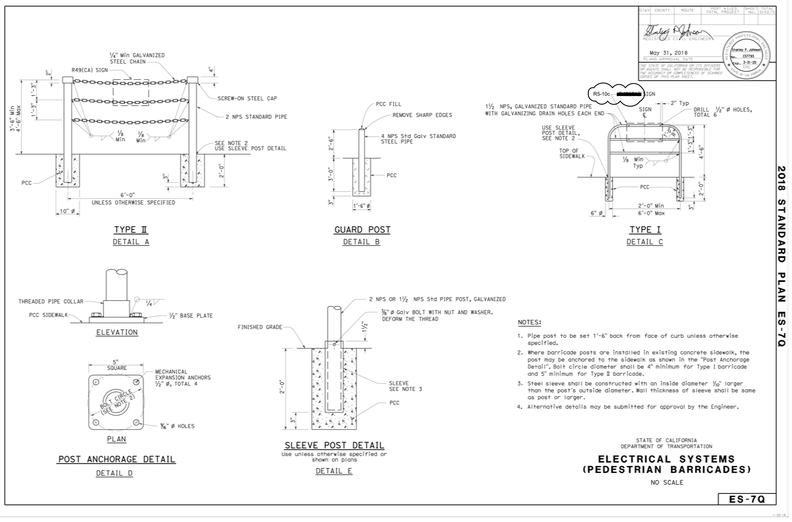
PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS

NO SCALE

RSP A20D DATED OCTOBER 19, 2018 SUPERSEDES STANDARD PLAN A20D DATED MAY 31, 2018 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP A20D

2018 STANDARD PLAN ES-7Q



NOTES:

1. Pipe post to be set 1'-6" back from face of curb unless otherwise specified.
2. Where barricade posts are installed in existing concrete sidewalk, the post may be anchored to the sidewalk as shown in the "Post Anchorage Detail". Bolt circle diameter shall be 4" minimum for Type I barricade and 5" minimum for Type II barricade.
3. Steel sleeve shall be constructed with an inside diameter ½" larger than the post's outside diameter. Wall thickness of sleeve shall be same as post or larger.
4. Alternative details may be submitted for approval by the Engineer.

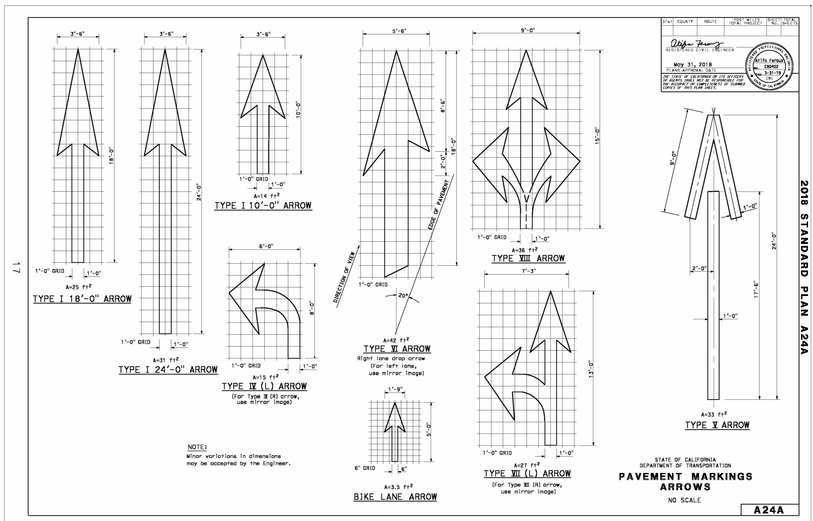
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS
(PEDESTRIAN BARRICADES)

NO SCALE

ES-7Q

2018 STANDARD PLAN A24A



NOTE:
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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
ARROWS

NO SCALE

A24A

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CITY OF VISALIA - BUILDING SAFETY DIVISION

APPROVED
Jim Ross
Jan 31, 2022 11:31:19 PST

DESIGN ENGINEER: MATTHEW J. BARNES	DRAFTED BY: JMN	CHECKED BY: MJB	
LICENSE NO: C79145	DATE: 01/11/22		
JOB NO: 2916210001			
PROJECT NO: 2916210001			
PHASE: 0			

ORIGINAL SCALE SHOWN IS ONE INCH (1") WIDE. IF NOT, PLANS REDUCED OR ENLARGED

SHEET 37 OF 71

EST. 1968
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CONSULTING GROUP
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VISALIA, CALIFORNIA 93291-6362
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VISALIA LOGISTICS CENTER II OFF-SITE
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CAPROCK ACQUISITIONS
CITY OF VISALIA, CA

SIGNAGE & STRIPING

STRIPING DETAILS

REGISTERED PROFESSIONAL ENGINEER
MATTHEW J. BARNES
No. 79,145
CIVIL
STATE OF CALIFORNIA

DATE SIGNED: 01/11/22

ISSUE
FOR CONSTRUCTION
01/11/2022

NO.	REVISION	BY	DATE

COV Plan Check Intake Date: 1/13/2022

1/12/2022 5:03 PM G:\CapRock Acquisitions-2916\2916210001-Vis Logistics Ctr II\300 CAD\340 Sheet Sets\OffSite\03_Details\37 STRIPING DETAILS.dwg -Nic Lowell

SIGNING, STRIPING, AND MARKINGS NOTES

1. ALL WORK SHALL CONFORM TO THE 2018 EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, THE CURRENT EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), THE LATEST EDITION OF THE CITY OF VISALIA IMPROVEMENT STANDARDS AND SPECIFICATIONS, AND THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL VERIFY THE INFORMATION SHOWN ON THESE PLANS WITH THE REFERENCED DOCUMENTS AND NOTIFY THE CITY OF VISALIA OF ANY DISCREPANCIES 48-HOURS PRIOR TO COMMENCING WORK.
2. ALL CONFLICTING TRAFFIC LINES AND PAVEMENT MARKINGS SHALL BE COMPLETELY REMOVED BY LIGHTLY GRINDING. GRINDING DEPTH SHALL BE LIMITED TO ONLY WHAT IS REQUIRED TO REMOVE THE STRIPING FROM THE ROADWAY SURFACE AND NO MORE. TYPE II SLURRY SEAL SHALL BE APPLIED TO THE AREAS AFFECTED BY GRINDING.
3. STRIPING PROCEDURES SHALL BE PER THE CITY OF VISALIA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
4. ALL CROSSWALKS SHALL BE 10 FEET, INSIDE EDGE TO INSIDE EDGE.
5. ALL EXISTING SIGNS AND POSTS TO BE REMOVED SHALL BE SALVAGED AND RETURNED TO THE CITY.
6. THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE LOWEST SIGN ON A POST, TO THE SIDEWALK, CURB FACE, OR PEDESTRIAN PATH OF TRAVEL SHALL BE 7'. SIGN INSTALLATIONS SHALL BE IN CONFORMANCE WITH THE CURRENT CA MUTCD AND CITY STANDARD DETAIL TS-2. SEE SHEET 32.

CONSTRUCTION NOTES

1. REMOVE EXISTING SIGN(S), AS NOTED, AND SIGN POST. REINSTALL/RELOCATE EXISTING SIGN(S) ON NEW SIGN POST. SALVAGE EXISTING SIGN POST.
2. INSTALL 12" WIDE LIMIT LINE OR CROSSWALK AS SHOWN.
3. INSTALL NEW SIGN(S), AS NOTED, ON NEW SIGN POST.
4. REMOVE AND SALVAGE EXISTING SIGN(S), AS NOTED, AND POST.
5. REMOVE EXISTING SIGN(S), AS NOTED, AND SIGN POST. REINSTALL EXISTING SIGN AND POST.
6. REMOVE EXISTING TRAFFIC STRIPE. INSTALL 50 LF OF DETAIL 22 PER STATE STANDARD PLAN RSP A20A. SEE SHEET 33.
7. REINSTALL "STOP" PAVEMENT MARKING PER STATE STANDARD PLAN A24D. SEE SHEET 34.
8. IMPROVEMENTS TO BE DONE BY OTHERS.
9. INSTALL NEW CONTINENTAL PAVEMENT MARKING CROSSWALK.

LEGEND

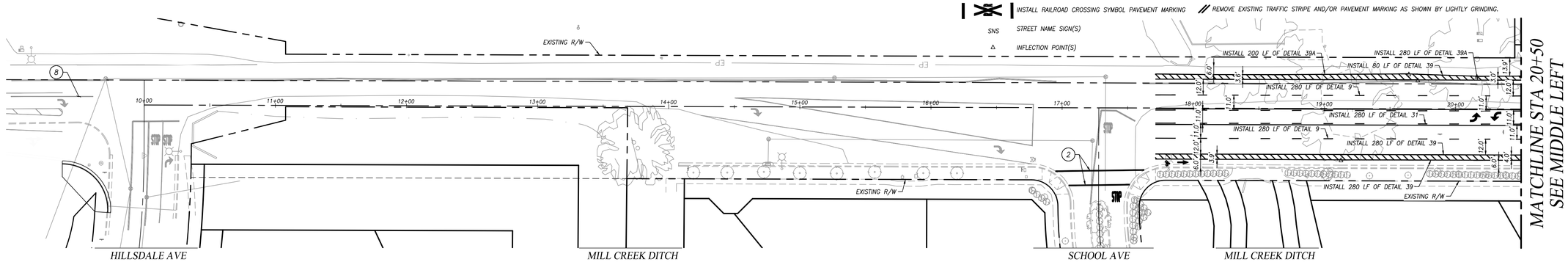
- EXISTING SIGN(S), AS NOTED, AND SIGN POST TO REMAIN UNLESS OTHERWISE INDICATED
- NEW OR RELOCATED SIGN(S), AS NOTED, AND SIGN POST
- INSTALL BICYCLE LANE SYMBOL WITH PERSON AND BIKE LANE ARROW PAVEMENT MARKING
- INSTALL CLASS III BICYCLE LANE SHARROW PAVEMENT MARKING
- INSTALL TYPE IV(L) PAVEMENT MARKING ARROW
- INSTALL TYPE IV(R) PAVEMENT MARKING ARROW
- SIGNAL — INSTALL "SIGNAL" PAVEMENT MARKING
- AHEAD — INSTALL "AHEAD" PAVEMENT MARKING
- STOP — INSTALL "STOP" PAVEMENT MARKING
- INSTALL RAILROAD CROSSING SYMBOL PAVEMENT MARKING
- REMOVE EXISTING TRAFFIC STRIPE AND/OR PAVEMENT MARKING AS SHOWN BY LIGHTLY GRINDING.
- SNS — STREET NAME SIGN(S)
- △ — INFLECTION POINT(S)

N

40' 0' 40'

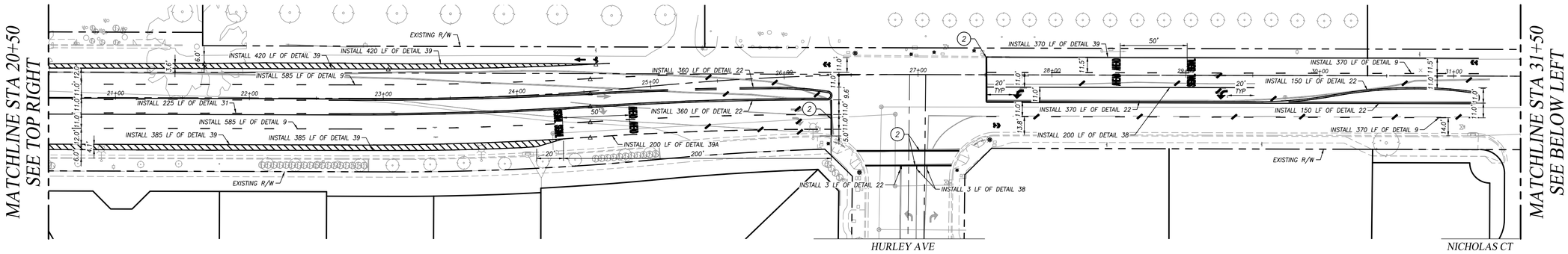
SCALE: 1"= 40'

811 Know what's below. Call before you dig.



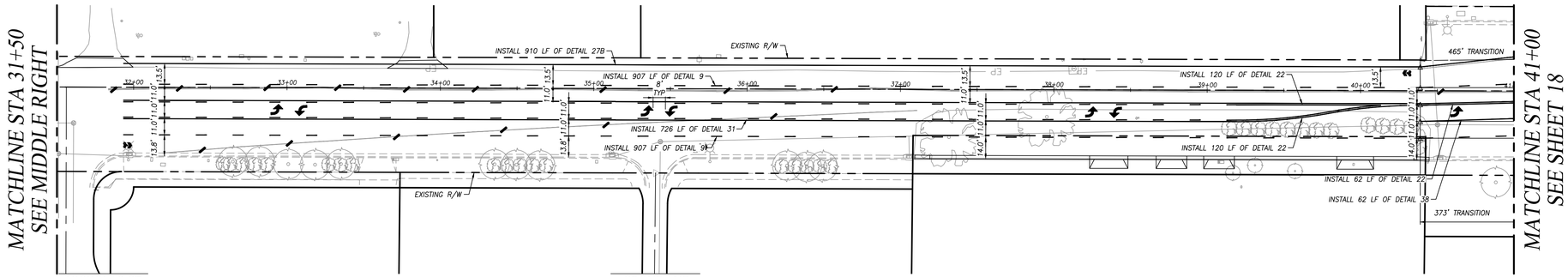
SHIRK STREET

STA 10+00 - 20+50



SHIRK STREET

STA 20+50 - 31+50



SHIRK STREET

STA 31+50 - 41+00

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BY:
QK
TEL: (559) 733-0440
WWW.QUADKNOPF.COM
901 EAST MAIN STREET
VISALIA, CA 93292

NO.	DATE	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER LISA MARIE WALLIS-DUTRA NO. 18888 TRAFFIC STATE OF CALIFORNIA

R.C.E. 18888

LISA MARIE WALLIS-DUTRA
PROJECT ENGINEER

APPROVED BY:

DATE:

VISALIA Founded 1852

SHIRK CAPACITY ENHANCEMENT PROJECT

SIGNING, STRIPING, AND MARKINGS

COV PROJ.:	CP0369
CONSULT PROJ.:	190393
DATE:	9/3/2021
DESIGN BY: A.O.	DRAWN BY: T.R.
SCALE:	AS SHOWN

SHEET 17 OF 42

60% PROGRESS SET - NOT FOR CONSTRUCTION

SIGNING, STRIPING, AND MARKINGS NOTES

1. ALL WORK SHALL CONFORM TO THE 2018 EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, THE CURRENT EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), THE LATEST EDITION OF THE CITY OF VISALIA IMPROVEMENT STANDARDS AND SPECIFICATIONS, AND THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL VERIFY THE INFORMATION SHOWN ON THESE PLANS WITH THE REFERENCED DOCUMENTS AND NOTIFY THE CITY OF VISALIA OF ANY DISCREPANCIES 48-HOURS PRIOR TO COMMENCING WORK.
2. ALL CONFLICTING TRAFFIC LINES AND PAVEMENT MARKINGS SHALL BE COMPLETELY REMOVED BY LIGHTLY GRINDING. GRINDING DEPTH SHALL BE LIMITED TO ONLY WHAT IS REQUIRED TO REMOVE THE STRIPING FROM THE ROADWAY SURFACE AND NO MORE. TYPE II SLURRY SEAL SHALL BE APPLIED TO THE AREAS AFFECTED BY GRINDING.
3. STRIPING PROCEDURES SHALL BE PER THE CITY OF VISALIA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
4. ALL CROSSWALKS SHALL BE 10 FEET, INSIDE EDGE TO INSIDE EDGE.
5. ALL EXISTING SIGNS AND POSTS TO BE REMOVED SHALL BE SALVAGED AND RETURNED TO THE CITY.
6. THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE LOWEST SIGN ON A POST, TO THE SIDEWALK, CURB FACE, OR PEDESTRIAN PATH OF TRAVEL SHALL BE 7'. SIGN INSTALLATIONS SHALL BE IN CONFORMANCE WITH THE CURRENT CA MUTCD AND CITY STANDARD DETAIL TS-2. SEE SHEET 32.

CONSTRUCTION NOTES

1. REMOVE EXISTING SIGN(S), AS NOTED, AND SIGN POST. REINSTALL/RELOCATE EXISTING SIGN(S) ON NEW SIGN POST. SALVAGE EXISTING SIGN POST.
2. INSTALL 12" WIDE LIMIT LINE OR CROSSWALK AS SHOWN.
3. INSTALL NEW SIGN(S), AS NOTED, ON NEW SIGN POST.
4. REMOVE AND SALVAGE EXISTING SIGN(S), AS NOTED, AND POST.
5. REMOVE EXISTING SIGN(S), AS NOTED, AND SIGN POST. REINSTALL EXISTING SIGN AND POST.
6. REMOVE EXISTING TRAFFIC STRIPE. INSTALL 50 LF OF DETAIL 22 PER STATE STANDARD PLAN RSP A20A. SEE SHEET 33.
7. REINSTALL "STOP" PAVEMENT MARKING PER STATE STANDARD PLAN A24D. SEE SHEET 34.
8. IMPROVEMENTS TO BE DONE BY OTHERS.
9. INSTALL NEW CONTINENTAL PAVEMENT MARKING CROSSWALK.

LEGEND

- EXISTING SIGN(S), AS NOTED, AND SIGN POST TO REMAIN UNLESS OTHERWISE INDICATED
- NEW OR RELOCATED SIGN(S), AS NOTED, AND SIGN POST
- INSTALL BICYCLE LANE SYMBOL WITH PERSON AND BIKE LANE ARROW PAVEMENT MARKING
- INSTALL CLASS III BICYCLE LANE SHARROW PAVEMENT MARKING
- INSTALL TYPE IV(L) PAVEMENT MARKING ARROW
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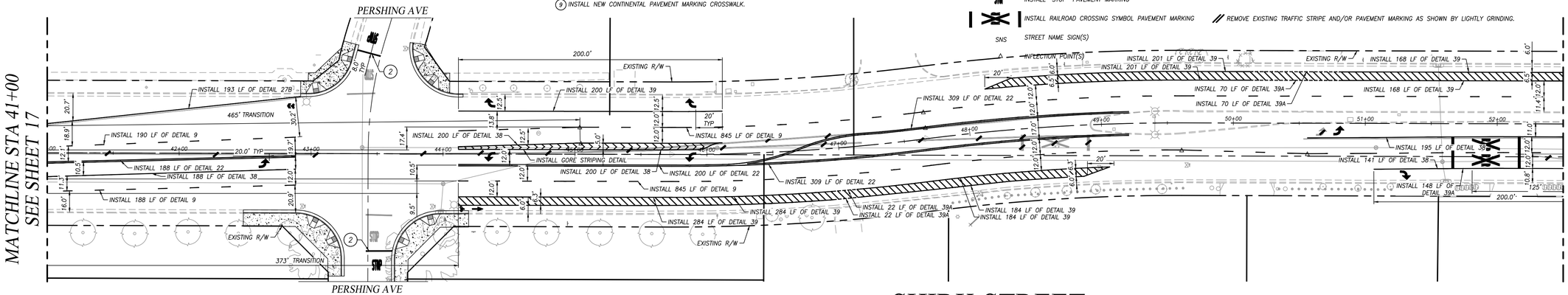
- REMOVE EXISTING TRAFFIC STRIPE AND/OR PAVEMENT MARKING AS SHOWN BY LIGHTLY GRINDING.
- SNS — STREET NAME SIGN(S)
- INFLECTION POINT(S)

N

40' 0' 40'

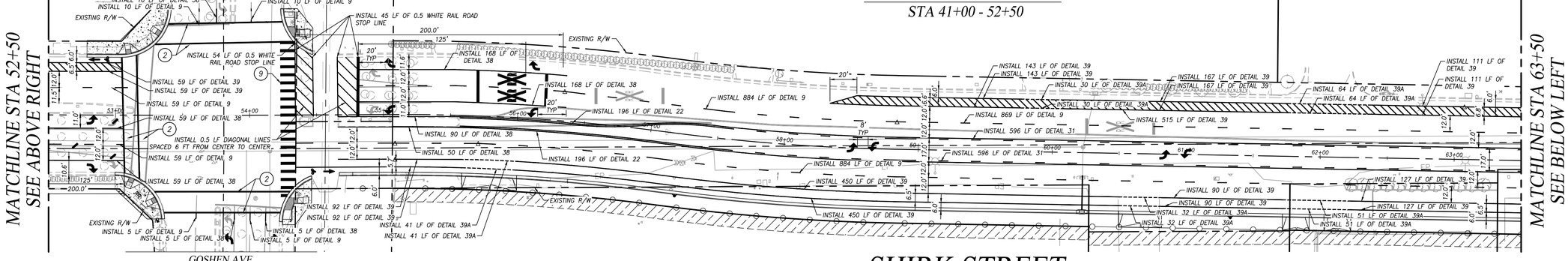
SCALE: 1"= 40'

811 Know what's below. Call before you dig.



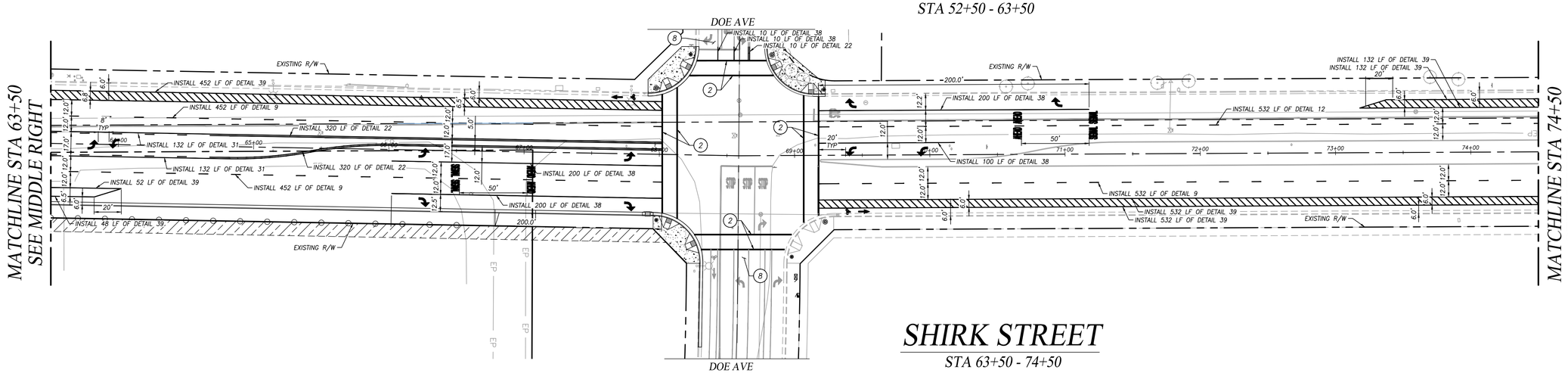
SHIRK STREET

STA 41+00 - 52+50



SHIRK STREET

STA 52+50 - 63+50



SHIRK STREET

STA 63+50 - 74+50

BY: QK
901 EAST MAIN STREET
VISALIA, CA 93292
TEL: (559) 733-0440
WWW.QKCA.COM

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NO.	DATE	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER LISA MARIE WALLIS-DUTRA NO. 18888 CIVIL STATE OF CALIFORNIA

R.C.E. 18888

APPROVED BY: LISA MARIE WALLIS-DUTRA PROJECT ENGINEER

DATE:

VISALIA Founded 1852

SHIRK CAPACITY ENHANCEMENT PROJECT

SIGNING, STRIPING, AND MARKINGS

COV PROJ.:	CP0369
CONSULT PROJ.:	190393
DATE:	9/3/2021
DESIGN BY: A.O.	DRAWN BY: T.R.
SCALE:	AS SHOWN

SHEET 18 OF 42

60% PROGRESS SET - NOT FOR CONSTRUCTION

SIGNING, STRIPING, AND MARKINGS NOTES

1. ALL WORK SHALL CONFORM TO THE 2018 EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, THE CURRENT EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), THE LATEST EDITION OF THE CITY OF VISALIA IMPROVEMENT STANDARDS AND SPECIFICATIONS, AND THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL VERIFY THE INFORMATION SHOWN ON THESE PLANS WITH THE REFERENCED DOCUMENTS AND NOTIFY THE CITY OF VISALIA OF ANY DISCREPANCIES 48-HOURS PRIOR TO COMMENCING WORK.
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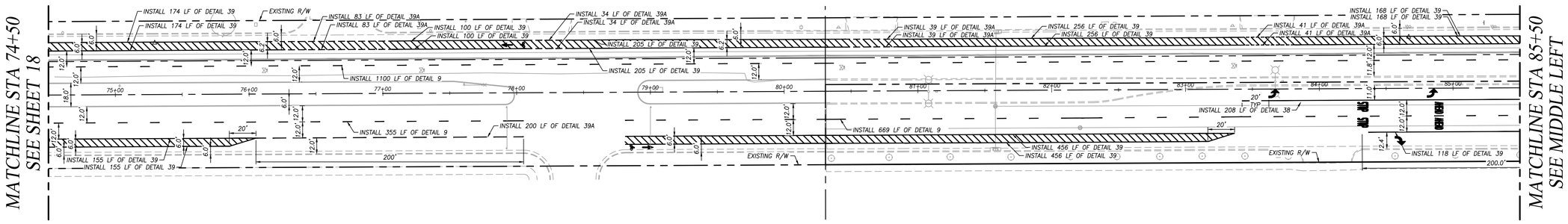
- REMOVE EXISTING TRAFFIC STRIPE AND/OR PAVEMENT MARKING AS SHOWN BY LIGHTLY GRINDING.
- SNS — STREET NAME SIGN(S)
- △ — INFLECTION POINT(S)

N

40' 0' 40'

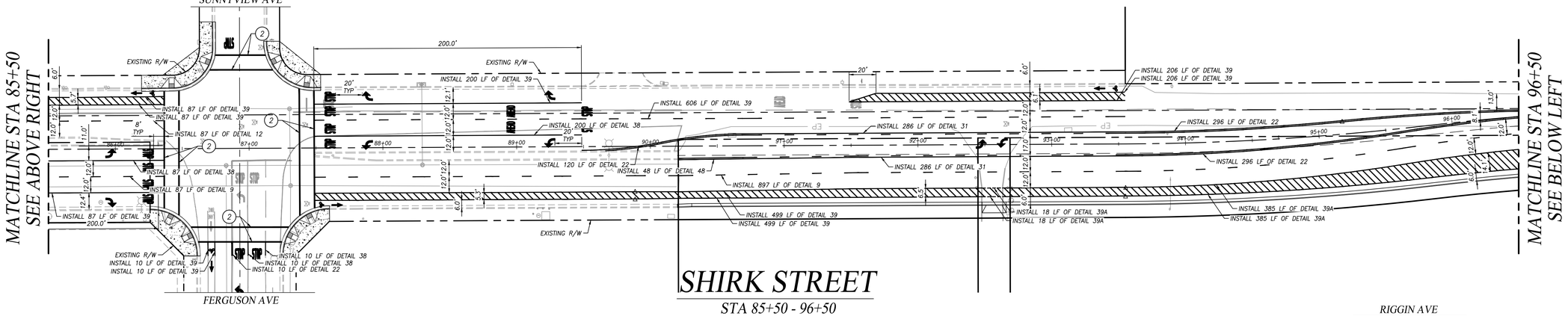
SCALE: 1"= 40'

811 Know what's below. Call before you dig.



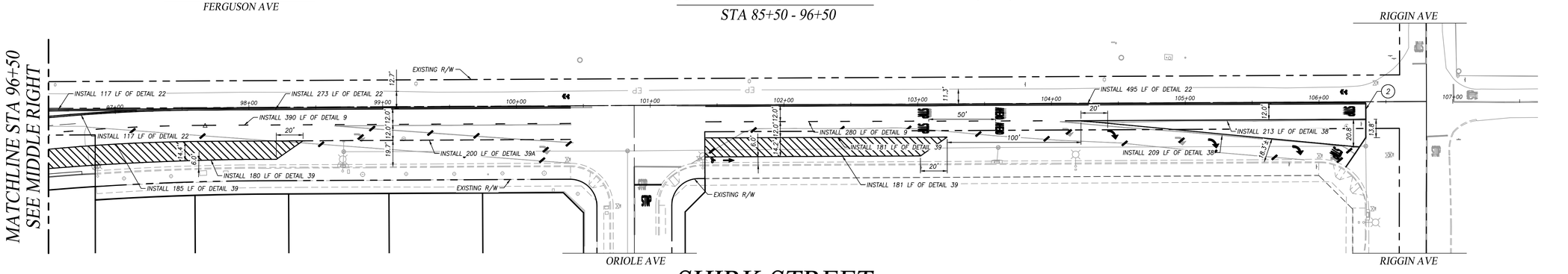
SHIRK STREET

STA 74+50 - 85+50



SHIRK STREET

STA 85+50 - 96+50



SHIRK STREET

STA 96+50 - 106+50

NO.	DATE	DESCRIPTION

BY: QK — 501 EAST MAIN STREET VISALIA, CA 93292 — TEL: (559) 733-0440 WWW.QKINC.COM

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REGISTERED PROFESSIONAL ENGINEER — LISA MARIE WALLIS-DUTRA — NO. 1888 — CIVIL — STATE OF CALIFORNIA

R.C.E. 1888
LISA MARIE WALLIS-DUTRA
PROJECT ENGINEER

APPROVED BY: LISA
DATE:

VISALIA — Founded 1852

SHIRK CAPACITY ENHANCEMENT PROJECT

SIGNING, STRIPING, AND MARKINGS

COV PROJ.:	CP0369
CONSULT PROJ.:	190393
DATE:	9/3/2021
DESIGN BY: A.O.	DRAWN BY: T.R.
SCALE:	AS SHOWN

SHEET 19 OF 42

60% PROGRESS SET - NOT FOR CONSTRUCTION

I – CA MUTCD Traffic Signal Warrants

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use			
Source: ITE *Trip Generation Manual* , 11th Edition			
Land Use Code	110		
Land Use	General Light Industrial		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	27		
	% of 24-Hour Truck Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.0%	0.0%	0.0%
1:00 - 2:00 AM	0.0%	0.0%	0.0%
2:00 - 3:00 AM	0.4%	0.0%	0.8%
3:00 - 4:00 AM	0.0%	0.0%	0.0%
4:00 - 5:00 AM	0.0%	0.0%	0.0%
5:00 - 6:00 AM	0.0%	0.0%	0.0%
6:00 - 7:00 AM	0.0%	0.0%	0.0%
7:00 - 8:00 AM	7.6%	9.8%	5.3%
8:00 - 9:00 AM	9.5%	9.1%	9.8%
9:00 - 10:00 AM	15.5%	15.2%	15.9%
10:00 - 11:00 AM	14.8%	12.1%	17.4%
11:00 - 12:00 PM	6.1%	7.6%	4.5%
12:00 - 1:00 PM	8.7%	9.1%	8.3%
1:00 - 2:00 PM	12.9%	12.9%	12.9%
2:00 - 3:00 PM	10.6%	10.6%	10.6%
3:00 - 4:00 PM	9.1%	9.8%	8.3%
4:00 - 5:00 PM	3.4%	3.0%	3.8%
5:00 - 6:00 PM	1.5%	0.8%	2.3%
6:00 - 7:00 PM	0.0%	0.0%	0.0%
7:00 - 8:00 PM	0.0%	0.0%	0.0%
8:00 - 9:00 PM	0.0%	0.0%	0.0%
9:00 - 10:00 PM	0.0%	0.0%	0.0%
10:00 - 11:00 PM	0.0%	0.0%	0.0%
11:00 - 12:00 AM	0.0%	0.0%	0.0%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use			
Source: ITE *Trip Generation Manual* , 11th Edition			
Land Use Code	110		
Land Use	General Light Industrial		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	27		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.0%	0.0%	0.0%
1:00 - 2:00 AM	0.0%	0.0%	0.1%
2:00 - 3:00 AM	0.0%	0.0%	0.1%
3:00 - 4:00 AM	0.0%	0.1%	0.0%
4:00 - 5:00 AM	0.3%	0.6%	0.0%
5:00 - 6:00 AM	2.9%	5.4%	0.4%
6:00 - 7:00 AM	3.9%	7.2%	0.7%
7:00 - 8:00 AM	10.1%	18.0%	2.3%
8:00 - 9:00 AM	7.7%	10.8%	4.6%
9:00 - 10:00 AM	7.3%	7.3%	7.3%
10:00 - 11:00 AM	7.7%	7.7%	7.8%
11:00 - 12:00 PM	7.5%	6.5%	8.5%
12:00 - 1:00 PM	9.9%	9.0%	10.8%
1:00 - 2:00 PM	7.9%	8.5%	7.3%
2:00 - 3:00 PM	8.1%	7.3%	8.9%
3:00 - 4:00 PM	8.7%	6.0%	11.3%
4:00 - 5:00 PM	7.5%	4.1%	10.8%
5:00 - 6:00 PM	9.0%	1.2%	16.7%
6:00 - 7:00 PM	1.2%	0.1%	2.4%
7:00 - 8:00 PM	0.0%	0.0%	0.1%
8:00 - 9:00 PM	0.0%	0.0%	0.0%
9:00 - 10:00 PM	0.0%	0.0%	0.0%
10:00 - 11:00 PM	0.0%	0.0%	0.0%
11:00 - 12:00 AM	0.0%	0.0%	0.0%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use			
Source: ITE *Trip Generation Manual* , 11th Edition			
Land Use Code	945		
Land Use	Convenience Store/Gas Station		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	5		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	1.3%	1.2%	1.3%
1:00 - 2:00 AM	0.8%	0.8%	0.9%
2:00 - 3:00 AM	0.6%	0.6%	0.6%
3:00 - 4:00 AM	0.8%	0.8%	0.7%
4:00 - 5:00 AM	1.5%	1.6%	1.5%
5:00 - 6:00 AM	3.1%	3.1%	3.0%
6:00 - 7:00 AM	4.6%	4.7%	4.5%
7:00 - 8:00 AM	5.9%	6.0%	5.9%
8:00 - 9:00 AM	6.5%	6.5%	6.4%
9:00 - 10:00 AM	5.7%	5.6%	5.7%
10:00 - 11:00 AM	5.3%	5.3%	5.3%
11:00 - 12:00 PM	5.8%	5.8%	5.7%
12:00 - 1:00 PM	6.6%	6.6%	6.6%
1:00 - 2:00 PM	6.1%	6.2%	5.9%
2:00 - 3:00 PM	6.1%	6.0%	6.2%
3:00 - 4:00 PM	6.8%	6.8%	6.8%
4:00 - 5:00 PM	6.4%	6.3%	6.5%
5:00 - 6:00 PM	6.8%	6.7%	6.9%
6:00 - 7:00 PM	5.4%	5.3%	5.4%
7:00 - 8:00 PM	4.0%	3.9%	4.0%
8:00 - 9:00 PM	3.4%	3.4%	3.4%
9:00 - 10:00 PM	2.7%	2.8%	2.7%
10:00 - 11:00 PM	2.1%	2.1%	2.1%
11:00 - 12:00 AM	1.9%	1.9%	2.0%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use			
Source: ITE *Trip Generation Manual* , 11th Edition			
Land Use Code	949		
Land Use	Car Wash and Detail Center		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	1		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.0%	0.0%	0.0%
1:00 - 2:00 AM	0.0%	0.0%	0.0%
2:00 - 3:00 AM	0.0%	0.0%	0.0%
3:00 - 4:00 AM	0.0%	0.0%	0.0%
4:00 - 5:00 AM	0.1%	0.1%	0.1%
5:00 - 6:00 AM	0.3%	0.3%	0.3%
6:00 - 7:00 AM	0.1%	0.1%	0.0%
7:00 - 8:00 AM	3.3%	4.8%	1.7%
8:00 - 9:00 AM	5.5%	6.6%	4.4%
9:00 - 10:00 AM	7.4%	7.8%	6.9%
10:00 - 11:00 AM	7.6%	7.5%	7.6%
11:00 - 12:00 PM	9.7%	10.4%	9.0%
12:00 - 1:00 PM	9.7%	9.8%	9.7%
1:00 - 2:00 PM	8.3%	7.9%	8.6%
2:00 - 3:00 PM	9.9%	9.7%	10.2%
3:00 - 4:00 PM	10.0%	9.6%	10.4%
4:00 - 5:00 PM	8.7%	8.4%	9.0%
5:00 - 6:00 PM	7.2%	7.1%	7.3%
6:00 - 7:00 PM	8.1%	7.5%	8.8%
7:00 - 8:00 PM	3.5%	1.7%	5.4%
8:00 - 9:00 PM	0.5%	0.5%	0.5%
9:00 - 10:00 PM	0.0%	0.0%	0.0%
10:00 - 11:00 PM	0.1%	0.1%	0.1%
11:00 - 12:00 AM	0.0%	0.0%	0.0%

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use			
Source: ITE *Trip Generation Manual* , 11th Edition			
Land Use Code	934		
Land Use	Fast-Food Restaurant with Drive-Through Windo		
Setting	General Urban/Suburban		
Time Period	Weekday		
# Data Sites	53		
	% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting
12:00 - 1:00 AM	0.8%	0.8%	0.8%
1:00 - 2:00 AM	0.4%	0.4%	0.5%
2:00 - 3:00 AM	0.3%	0.3%	0.3%
3:00 - 4:00 AM	0.3%	0.2%	0.3%
4:00 - 5:00 AM	0.3%	0.3%	0.3%
5:00 - 6:00 AM	0.7%	0.8%	0.7%
6:00 - 7:00 AM	2.1%	2.3%	1.9%
7:00 - 8:00 AM	3.3%	3.4%	3.1%
8:00 - 9:00 AM	3.5%	3.5%	3.4%
9:00 - 10:00 AM	3.3%	3.4%	3.3%
10:00 - 11:00 AM	3.8%	4.0%	3.7%
11:00 - 12:00 PM	8.4%	9.1%	7.7%
12:00 - 1:00 PM	11.9%	11.9%	12.0%
1:00 - 2:00 PM	8.3%	7.9%	8.7%
2:00 - 3:00 PM	6.2%	5.9%	6.5%
3:00 - 4:00 PM	5.7%	5.7%	5.7%
4:00 - 5:00 PM	5.7%	5.9%	5.6%
5:00 - 6:00 PM	6.7%	6.9%	6.5%
6:00 - 7:00 PM	7.4%	7.4%	7.4%
7:00 - 8:00 PM	6.5%	6.3%	6.6%
8:00 - 9:00 PM	5.7%	5.6%	5.8%
9:00 - 10:00 PM	4.4%	4.1%	4.6%
10:00 - 11:00 PM	2.7%	2.5%	2.9%
11:00 - 12:00 AM	1.6%	1.4%	1.8%

Linked Cell

			Phase 1 Trips											Phase 1+2 Trips											Full Build Out											CP Distribution
			Industrial Vehicles	5,221	Industrial Trucks	1,063	C-Store	0	Car Wash	0	Restaurant	0	Total Project	Industrial Vehicles	6,658	Industrial Trucks	1,355	C-Store	4,848	Car Wash	108	Restaurant	2,214	Total Project	Industrial Vehicles	9,281	Industrial Trucks	1,854	C-Store	4,848	Car Wash	108	Restaurant	2,214	Total Project	General Office
			% Daily	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	% Daily	Trips	Trips	% Daily
6:00	to	7:00	3.9	206	0.0	0	4.6	0	0.1	0	2.1	0	206	3.9	263	0	0	4.6	222	0.1	0	2.1	46	530	3.9	366	0.0	0	4.6	222	0.1	0	2.1	46	634	3.4%
7:00	to	8:00	10.1	529	7.6	81	5.9	0	3.3	0	3.3	0	529	10.1	675	8	103	5.9	287	3.3	4	3.3	72	1038	10.1	941	7.6	140	5.9	287	3.3	4	3.3	72	1303	8.2%
8:00	to	9:00	7.7	401	9.5	101	6.5	0	5.5	0	3.5	0	401	7.7	401	9	128	6.5	314	5.5	6	3.5	76	798	7.7	401	9.5	494	6.5	314	5.5	6	3.5	76	798	7.6%
9:00	to	10:00	7.3	381	15.5	165	5.7	0	7.4	0	3.3	0	381	7.3	381	16	210	5.7	275	7.4	8	3.3	74	737	7.3	381	15.5	811	5.7	275	7.4	8	3.3	74	737	5.7%
10:00	to	11:00	7.7	404	14.8	157	5.3	0	7.6	0	3.8	0	404	7.7	404	15	200	5.3	257	7.6	8	3.8	85	754	7.7	404	14.8	771	5.3	257	7.6	8	3.8	85	754	6.1%
11:00	to	12:00	7.5	391	6.1	64	5.8	0	9.7	0	8.4	0	391	7.5	391	6	82	5.8	280	9.7	11	8.4	186	868	7.5	391	6.1	316	5.8	280	9.7	11	8.4	186	868	7.0%
12:00	to	13:00	9.9	519	8.7	93	6.6	0	9.7	0	11.9	0	519	9.9	519	9	118	6.6	320	9.7	11	11.9	264	1114	9.9	519	8.7	455	6.6	320	9.7	11	11.9	264	1114	8.6%
13:00	to	14:00	7.9	412	12.9	137	6.1	0	8.3	0	8.3	0	412	7.9	412	13	175	6.1	294	8.3	9	8.3	184	898	7.9	412	12.9	672	6.1	294	8.3	9	8.3	184	898	7.3%
14:00	to	15:00	8.1	422	10.6	113	6.1	0	9.9	0	6.2	0	422	8.1	422	11	144	6.1	296	9.9	11	6.2	136	866	8.1	422	10.6	554	6.1	296	9.9	11	6.2	136	866	7.4%
15:00	to	16:00	8.7	454	9.1	97	6.8	0	10.0	0	5.7	0	454	8.7	454	9	123	6.8	329	10.0	11	5.7	126	919	8.7	454	9.1	475	6.8	329	10.0	11	5.7	126	919	8.0%
16:00	to	17:00	7.5	391	3.4	36	6.4	0	8.7	0	5.7	0	391	7.5	391	3	46	6.4	311	8.7	9	5.7	126	838	7.5	391	3.4	178	6.4	311	8.7	9	5.7	126	838	8.9%
17:00	to	18:00	9.0	469	1.5	16	6.8	0	7.2	0	6.7	0	469	9.0	469	2	21	6.8	331	7.2	8	6.7	149	957	9.0	469	1.5	79	6.8	331	7.2	8	6.7	149	957	9.2%
18:00	to	19:00	1.2	65	0.0	0	5.4	0	8.1	0	7.4	0	65	1.2	65	0	0	5.4	259	8.1	9	7.4	164	497	1.2	65	0.0	0	5.4	259	8.1	9	7.4	164	497	3.5%
19:00	to	20:00	0.0	3	0.0	0	4.0	0	3.5	0	6.5	0	3	0.0	3	0	0	4.0	193	3.5	4	6.5	143	343	0.0	3	0.0	0	4.0	193	3.5	4	6.5	143	343	2.3%
																	ADT	5710	30				ADT	5710	30			ADT	5710	30					
																	AM	289	1	60	2		AM	289	1	61	2		AM	289	1	63	2		AM	352	6
																	PM	282	2	138	0		PM	282	2	141	0		PM	282	2	145	0		PM	427	2

#7 N Kelsey Street & Shannon Pkwy/Riverway

Count Sheet u24

Existing Volumes

			NB/SB	WB			
			Major	Minor Highest (WB)	Major %	Minor %	
6:00	to	7:00	125	1	82%	100%	
7:00	to	8:00	153	1	100%	100%	
8:00	to	9:00	56	1	37%	100%	
9:00	to	10:00	49	1	32%	100%	
10:00	to	11:00	54	1	35%	100%	
11:00	to	12:00	72	1	47%	100%	
12:00	to	13:00	105	1	54%	100%	
13:00	to	14:00	71	1	36%	100%	
14:00	to	15:00	80	1	41%	100%	
15:00	to	16:00	73	1	37%	100%	
16:00	to	17:00	70	1	36%	100%	
17:00	to	18:00	185	1	95%	100%	
18:00	to	19:00	195	1	100%	100%	
19:00	to	20:00	24	1	12%	100%	

Trip Distribution - West

P1	NB	SB	EB	WB
Vehicles	8%	5%	0%	3%
Trucks	8%	5%	0%	3%

Trip Distribution - East

P1	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%

Trip Distribution - West

P2	NB	SB	EB	WB
Vehicles	7%	5%	0%	2%
Trucks	7%	5%	0%	2%

Trip Distribution - East

P2	NB	SB	EB	WB
Vehicles	1%	1%	0%	1%
Trucks	1%	1%	0%	1%

Trip Distribution - West

BO	NB	SB	EB	WB
Vehicles	7%	5%	0%	2%
Trucks	7%	5%	0%	2%

Trip Distribution - East

BO	NB	SB	EB	WB
Vehicles	1%	1%	0%	1%
Trucks	1%	1%	0%	1%

Trip Assignment

	Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
	26	5	72	13	86	16
	76	15	154	28	195	36
	63	13	126	23	175	32
	68	14	128	23	209	38
	70	14	129	24	206	38
	57	11	128	23	160	30
	76	15	167	30	211	40
	69	14	144	27	212	40
	67	13	136	25	191	35
	69	14	141	26	188	35
	53	11	120	22	137	25
	61	12	132	25	140	26
	8	2	67	12	67	12
	0	0	46	8	46	8

	Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO		LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
	196	1	245	3	271	8	196	1	246	3	318	16	196	1	247	3	333	19	288	5	374	21	288	7	374	23	288	10	374	26
	466	2	526	4	602	19	466	2	527	4	681	32	466	2	529	4	724	40	352	6	547	42	352	9	547	45	352	12	547	48
	432	2	454	4	517	17	432	2	454	4	580	27	432	2	455	4	630	36	129	2	304	34	129	3	304	35	129	4	304	36
	327	2	346	4	414	18	327	2	347	4	475	27	327	2	347	4	556	42	113	2	322	40	113	3	322	41	113	4	322	42
	350	2	371	4	441	18	350	2	372	4	501	28	350	2	372	4	578	42	124	2	330	40	124	3	330	41	124	4	330	42
	398	2	426	4	483	15	398	2	427	4	555	27	398	2	428	4	588	34	166	3	326	33	166	4	326	34	166	6	326	36
	491	3	565	3	641	18	491	3	567	3	734	33	491	3	569	3	780	43	230	1	441	41	230	1	441	41	230	1	441	41
	414	2	464	2	533	16	414	2	465	2	609	29	414	2	467	2	679	42	155	1	367	41	155	1	367	41	155	1	367	41
	420	2	477	2	544	15	420	2	478	2	614	27	420	2	479	2	670	37	175	1	366	36	175	1	366	36	175	1	366	36
	457	2	509	2	578	16	457	2	510	2	651	28	457	2	511	2	699	37	160	1	348	36	160	1	348	36	160	1	348	36
	509	3	559	3	612	14	509	3	560	3	680	25	509	3	561	3	698	28	153	1	290	26	153	1	290	26	153	1	290	26
	525	3	656	3	717	15	525	3	659	3	791	28	525	3	663	3	803	29	405	2	545	28	405	2	545	28	405	2	545	28
	201	1	339	1	347	3	201	1	342	1	409	13	201	1	346	1	413	13	427	2	494	14	427	2	494	14	427	2	494	14
	130	1	147	1	147	1	130	1	147	1	193	9	130	1	148	1	194	9	53	0	99	8	53	0	99	8	53	0	99	8

#10 Future N Clancy St & Unnamed North Road

Count Sheet 10_TMC.xls

Existing Volumes

			NB/SB	WB			
			Major	Minor Highest App (SB)	Major %	Minor %	
6:00	to	7:00	2	5	100%	31%	
7:00	to	8:00	2	8	100%	50%	
8:00	to	9:00	1	7	50%	44%	
9:00	to	10:00	2	16	100%	100%	
10:00	to	11:00	1	6	50%	38%	
11:00	to	12:00	1	8	50%	50%	
12:00	to	13:00	0	4	0%	67%	
13:00	to	14:00	0	2	0%	33%	
14:00	to	15:00	0	5	0%	83%	
15:00	to	16:00	0	0	0%	0%	
16:00	to	17:00	1	6	100%	100%	
17:00	to	18:00	0	4	0%	67%	
18:00	to	19:00	0	0	0%	0%	
19:00	to	20:00	0	2	0%	33%	

Trip Distribution - West

P1	NB	SB	EB	WB
Vehicles	0%	0%	3%	3%
Trucks	0%	0%	3%	3%

Trip Distribution - East

P1	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%

Trip Distribution - West

P2	NB	SB	EB	WB
Vehicles	0%	0%	2%	2%
Trucks	0%	0%	2%	2%

Trip Distribution - East

P2	NB	SB	EB	WB
Vehicles	0%	0%	1%	1%
Trucks	0%	0%	1%	1%

Trip Distribution - West

BO	NB	SB	EB	WB
Vehicles	0%	0%	2%	2%
Trucks	0%	0%	2%	2%

Trip Distribution - East

BO	NB	SB	EB	WB
Vehicles	0%	0%	1%	1%
Trucks	0%	0%	1%	1%

Trip Assignment

	Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
	10	0	27	0	32	0
	30	0	57	0	72	0
	25	0	47	0	65	0
	27	0	47	0	77	0
	28	0	48	0	77	0
	23	0	47	0	60	0
	31	0	62	0	78	0
	27	0	53	0	78	0
	27	0	50	0	71	0
	28	0	52	0	70	0
	21	0	45	0	50	0
	24	0	49	0	52	0
	3	0	25	0	25	0
	0	0	17	0	17	0

	Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO		LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB	EB/WB	SB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
	0	0	1	5	11	5	0	0	1	5	28	5	0	0	1	5	33	5	6	9	38	9	8	11	40	11	13	15	45	15
	0	0	1	5	31	5	0	0	1	5	58	5	0	0	1	5	73	5	6	9	78	9	8	11	80	11	13	15	85	15
	0	0	1	3	26	3	0	0	1	3	48	3	0	0	1	3	66	3	3	5	68	5	4	6	69	6	7	8	72	8
	0	0	1	5	28	5	0	0	1	5	48	5	0	0	1	5	78	5	6	9	83	9	8	11	85	11	13	15	90	15
	0	0	1	3	29	3	0	0	1	3	49	3	0	0	1	3	78	3	3	5	80	5	4	6	81	6	7	8	84	8
	0	0	1	3	24	3	0	0	1	3	48	3	0	0	1	3	61	3	3	5	63	5	4	6	64	6	7	8	67	8
	0	0	0	0	31	0	0	0	0	0	62	0	0	0	0	0	78	0	0	0	78	0	0	0	78	0	0	0	78	0
	0	0	0	0	27	0	0	0	0	0	53	0	0	0	0	0	78	0	0	0	78	0	0	0	78	0	0	0	78	0
	0	0	0	0	27	0	0	0	0	0	50	0	0	0	0	0	71	0	0	0	71	0	0	0	71	0	0	0	71	0
	0	0	0	0	28	0	0	0	0	0	52	0	0	0	0	0	70	0	0	0	70	0	0	0	70	0	0	0	70	0
	0	0	0	4	21	4	0	0	0	4	45	4	0	0	0	4	50	4	0	6	50	6	0	6	50	6	0	8	50	8
	0	0	0	0	24	0	0	0	0	0	49	0	0	0	0	0	52	0	0	0	52	0	0	0	52	0	0	0	52	0
	0	0	0	0	3	0	0	0	0	0	25	0	0	0	0	0	25	0	0	0	25	0	0	0	25	0	0	0	25	0
	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	17	0	0	0	17	0	0	0	17	0	0	0	17	0

#11 Future N Clancy St & W Riggin Ave

Count Sheet

Existing Volumes

	EB/WB Major	SB Minor Highest App (SB)	Major %	Minor %
6:00 to 7:00	322	1	78%	100%
7:00 to 8:00	413	1	100%	100%
8:00 to 9:00	350	1	85%	100%
9:00 to 10:00	230	1	56%	100%
10:00 to 11:00	242	1	59%	100%
11:00 to 12:00	214	1	52%	100%
12:00 to 13:00	267	1	96%	100%
13:00 to 14:00	270	1	97%	100%
14:00 to 15:00	270	1	97%	100%
15:00 to 16:00	269	1	96%	100%
16:00 to 17:00	262	1	94%	100%
17:00 to 18:00	279	1	100%	100%
18:00 to 19:00	224	1	80%	100%
19:00 to 20:00	146	1	52%	100%

Trip Distribution

Trip Distribution	Phase		NB	SB	EB	WB
West	P1	Vehicles	0%	27%	15%	26%
West	P1	Trucks	0%	27%	15%	26%
East	P1	Vehicles	0%	0%	0%	0%
East	P1	Trucks	0%	0%	0%	0%
West	P2	Vehicles	0%	19%	12%	20%
West	P2	Trucks	0%	19%	12%	20%
East	P2	Vehicles	0%	0%	1%	1%
East	P2	Trucks	0%	0%	1%	1%
West	BO	Vehicles	0%	19%	12%	20%
West	BO	Trucks	0%	19%	12%	20%
East	BO	Vehicles	0%	0%	1%	1%
East	BO	Trucks	0%	0%	1%	1%

Trip Assignment

	Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
6:00 to 7:00	82	56	181	101	216	120
7:00 to 8:00	244	165	388	217	491	274
8:00 to 9:00	201	136	315	176	440	246
9:00 to 10:00	218	147	322	180	526	294
10:00 to 11:00	224	151	324	181	519	290
11:00 to 12:00	182	123	323	180	403	225
12:00 to 13:00	245	165	419	234	533	298
13:00 to 14:00	219	148	364	204	534	298
14:00 to 15:00	214	144	343	192	482	270
15:00 to 16:00	220	149	355	198	474	265
16:00 to 17:00	171	115	301	168	345	193
17:00 to 18:00	194	131	333	186	352	197
18:00 to 19:00	26	18	169	94	169	94
19:00 to 20:00	1	1	117	65	117	65

	Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO	
	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor
ADT	7970	30					7970	30					8170	40				
AM	309	0	677	0			309	0	689	0			319	0	715	0		
PM	488	3	751	0			488	3	764	0			498	4	792	0		
6:00 to 7:00	274	1	802	1	884	57	274	1	811	1	992	102	280	1	837	1	1053	121
7:00 to 8:00	650	2	1327	2	1571	167	650	2	1339	2	1727	219	666	3	1381	3	1872	277
8:00 to 9:00	603	2	1177	2	1378	138	603	2	1187	2	1502	178	618	3	1224	3	1664	249
9:00 to 10:00	456	2	833	2	1051	149	456	2	840	2	1162	182	467	2	865	2	1391	296
10:00 to 11:00	488	2	885	2	1109	153	488	2	892	2	1216	183	500	2	919	2	1438	292
11:00 to 12:00	555	2	906	2	1088	125	555	2	912	2	1235	182	569	3	939	3	1342	228
12:00 to 13:00	686	3	1405	3	1650	168	686	3	1417	3	1836	237	703	3	1461	3	1994	301
13:00 to 14:00	578	2	1305	2	1524	150	578	2	1317	2	1681	206	593	3	1359	3	1893	301
14:00 to 15:00	586	2	1313	2	1527	146	586	2	1325	2	1668	194	601	3	1367	3	1849	273
15:00 to 16:00	638	2	1362	2	1582	151	638	2	1375	2	1730	200	654	3	1418	3	1892	268
16:00 to 17:00	710	3	1415	3	1586	118	710	3	1427	3	1728	171	728	4	1472	4	1817	197
17:00 to 18:00	732	3	1483	3	1677	134	732	3	1496	3	1829	189	750	4	1542	4	1894	201
18:00 to 19:00	281	1	884	1	910	19	281	1	894	1	1063	95	288	1	924	1	1093	95
19:00 to 20:00	182	1	575	1	576	2	182	1	582	1	699	66	186	1	600	1	717	66

	LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor	EB/WB Major	SB Minor
AM	1070	1			1070	1			1104	1		
PM	1315	4			1315	4			1340	3		
6:00 to 7:00	834	1	1050	121	834	1	1050	121	861	1	1077	121
7:00 to 8:00	1070	1	1561	275	1070	1	1561	275	1104	1	1595	275
8:00 to 9:00	907	1	1347	247	907	1	1347	247	936	1	1376	247
9:00 to 10:00	596	1	1122	295	596	1	1122	295	615	1	1141	295
10:00 to 11:00	627	1	1146	291	627	1	1146	291	647	1	1166	291
11:00 to 12:00	554	1	957	226	554	1	957	226	572	1	975	226
12:00 to 13:00	1258	4	1791	302	1258	4	1791	302	1282	3	1815	301
13:00 to 14:00	1273	4	1807	302	1273	4	1807	302	1297	3	1831	301
14:00 to 15:00	1273	4	1755	274	1273	4	1755	274	1297	3	1779	273
15:00 to 16:00	1268	4	1742	269	1268	4	1742	269	1292	3	1766	268
16:00 to 17:00	1235	4	1580	197	1235	4	1580	197	1258	3	1603	196
17:00 to 18:00	1315	4	1667	201	1315	4	1667	201	1340	3	1692	200
18:00 to 19:00	1056	4	1225	98	1056	4	1225	98	1076	3	1245	97
19:00 to 20:00	688	4	805	69	688	4	805	69	701	3	818	68

#12 N Shirk St & Avenue 320

Count Sheet 12_TMC.xls

Existing Volumes

	EB/WB Major	NB Minor Highest App (NB)	Major %	Minor %
6:00 to 7:00	67	45	33%	79%
7:00 to 8:00	203	46	100%	81%
8:00 to 9:00	114	57	56%	100%
9:00 to 10:00	70	46	34%	81%
10:00 to 11:00	38	52	19%	91%
11:00 to 12:00	66	31	33%	54%
12:00 to 13:00	74	49	49%	62%
13:00 to 14:00	88	74	58%	94%
14:00 to 15:00	95	72	63%	91%
15:00 to 16:00	141	79	93%	100%
16:00 to 17:00	148	70	97%	89%
17:00 to 18:00	152	61	100%	77%
18:00 to 19:00	95	23	63%	29%
19:00 to 20:00	62	10	41%	13%

Trip Distribution

Trip Distribution	Phase		NB	SB	EB	WB
West	P1	Vehicles	2%	0%	1%	3%
West	P1	Trucks	2%	0%	1%	3%
East	P1	Vehicles	0%	0%	0%	0%
East	P1	Trucks	0%	0%	0%	0%
West	P2	Vehicles	2%	0%	1%	3%
West	P2	Trucks	2%	0%	1%	3%
East	P2	Vehicles	0%	0%	1%	1%
East	P2	Trucks	0%	0%	1%	1%
West	BO	Vehicles	2%	0%	1%	3%
West	BO	Trucks	2%	0%	1%	3%
East	BO	Vehicles	0%	0%	1%	1%
East	BO	Trucks	0%	0%	1%	1%

Trip Assignment

	Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
6:00 to 7:00	7	3	30	8	35	10
7:00 to 8:00	21	9	63	17	80	22
8:00 to 9:00	18	8	51	14	71	19
9:00 to 10:00	19	8	52	14	85	23
10:00 to 11:00	20	8	52	14	84	23
11:00 to 12:00	16	7	52	14	65	18
12:00 to 13:00	21	9	68	18	86	24
13:00 to 14:00	19	8	59	16	86	24
14:00 to 15:00	19	8	55	15	78	21
15:00 to 16:00	19	8	57	16	77	21
16:00 to 17:00	15	6	49	13	56	15
17:00 to 18:00	17	7	54	15	57	16
18:00 to 19:00	2	1	27	7	27	7
19:00 to 20:00	0	0	19	5	19	5

	Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO	
	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor
ADT	540	470					540	470					660	490				
AM	20	7	204	48			20	7	208	48			26	7	216	50		
PM	34	40	154	85			34	40	156	87			40	42	161	90		
6:00 to 7:00	19	16	86	54	93	57	19	16	88	54	118	62	23	17	94	56	129	66
7:00 to 8:00	44	38	248	77	269	86	44	38	252	77	315	94	54	40	270	80	350	102
8:00 to 9:00	41	36	156	84	174	92	41	36	158	84	209	98	50	37	171	87	242	106
9:00 to 10:00	31	27	101	66	120	74	31	27	103	66	155	80	38	28	112	68	197	91
10:00 to 11:00	33	29	71	73	91	81	33	29	72	73	124	87	40	30	80	76	164	99
11:00 to 12:00	38	33	104	59	120	66	38	33	106	59	158	73	46	34	116	61	181	79
12:00 to 13:00	46	40	121	93	142	102	46	40	122	94	190	112	57	42	135	98	221	122
13:00 to 14:00	39	34	128	114	147	122	39	34	129	115	188	131	48	36	141	120	227	144
14:00 to 15:00	40	35	136	112	155	120	40	35	138	114	193	129	49	36	150	118	228	139
15:00 to 16:00	43	38	186	123	205	131	43	38	188	125	245	141	53	39	202	129	279	150
16:00 to 17:00	48	42	198	117	213	123	48	42	200	119	249	132	59	44	216	124	272	139
17:00 to 18:00	50	43	204	109	221	116	50	43	206	110	260	125	61	45	222	114	279	130
18:00 to 19:00	19	17	115	42	117	43	19	17	117	42	144	49	23	17	124	43	151	50
19:00 to 20:00	12	11	75	22	75	22	12	11	76	22	95	27	15	11	81	22	100	27

	LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor	EB/WB Major	NB Minor
AM	261	69			261	69			287	79		
PM	221	149			239	149			284	163		
6:00 to 7:00	86	54	121	64	86	54	121	64	95	62	130	72
7:00 to 8:00	261	56	341	78	261	56	341	78	287	64	367	86
8:00 to 9:00	147	69	218	88	147	69	218	88	161	79	232	98
9:00 to 10:00	90	56	175	79	90	56	175	79	99	64	184	87
10:00 to 11:00	49	63	133	86	49	63	133	86	54	72	138	95
11:00 to 12:00	85	38	150	56	85	38	150	56	93	43	158	61
12:00 to 13:00	108	92	194	116	116	92	202	116	138	101	224	125
13:00 to 14:00	128	140	214	164	138	140	224	164	164	153	250	177
14:00 to 15:00	138	136	216	157	149	136	227	157	178	149	256	170
15:00 to 16:00	205	149	282	170	222	149	299	170	263	163	340	184
16:00 to 17:00	215	132	271	147	233	132	289	147	277	144	333	159
17:00 to 18:00	221	115	278	131	239	115	296	131	284	126	341	142
18:00 to 19:00	138	43	165	50	149	43	176	50	178	47	205	54
19:00 to 20:00	90	19	109	24	97	19	116	24	116	21	135	26

#13 N Shirk St & Shannon Pkwy

Existing Volumes

	NB/SB Major	EB Minor Highest App (EB)	Major %	Minor %
6:00 to 7:00	99	1	63%	100%
7:00 to 8:00	157	1	100%	100%
8:00 to 9:00	120	0	76%	0%
9:00 to 10:00	110	0	70%	0%
10:00 to 11:00	88	1	56%	100%
11:00 to 12:00	84	0	54%	0%
12:00 to 13:00	108	0	79%	0%
13:00 to 14:00	92	0	67%	0%
14:00 to 15:00	137	1	100%	100%
15:00 to 16:00	119	0	87%	0%
16:00 to 17:00	101	0	74%	0%
17:00 to 18:00	95	0	69%	0%
18:00 to 19:00	49	0	36%	0%
19:00 to 20:00	30	0	22%	0%

Trip Distribution

Trip Distribution	Phase		NB	SB	EB	WB
West	P1	Vehicles	4%	2%	3%	0%
West	P1	Trucks	4%	2%	3%	0%
East	P1	Vehicles	0%	0%	0%	0%
East	P1	Trucks	0%	0%	0%	0%
West	P2	Vehicles	3%	2%	2%	0%
West	P2	Trucks	3%	2%	2%	0%
East	P2	Vehicles	0%	0%	1%	0%
East	P2	Trucks	0%	0%	1%	0%
West	BO	Vehicles	3%	2%	2%	0%
West	BO	Trucks	3%	2%	2%	0%
East	BO	Vehicles	0%	0%	1%	0%
East	BO	Trucks	0%	0%	1%	0%

Trip Assignment

	Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
6:00 to 7:00	11	5	24	13	29	16
7:00 to 8:00	34	15	51	28	65	36
8:00 to 9:00	28	13	42	23	58	32
9:00 to 10:00	30	14	43	23	70	38
10:00 to 11:00	31	14	43	24	69	38
11:00 to 12:00	25	11	43	23	53	30
12:00 to 13:00	34	15	55	30	71	40
13:00 to 14:00	30	14	48	27	71	40
14:00 to 15:00	29	13	45	25	64	35
15:00 to 16:00	30	14	47	26	63	35
16:00 to 17:00	23	11	40	22	46	25
17:00 to 18:00	27	12	44	25	47	26
18:00 to 19:00	4	2	22	12	22	12
19:00 to 20:00	0	0	15	8	15	8

	Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO	
	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor
ADT	940	0					940	0					1210	0				
AM	24	0	155	1			24	0	158	1			34	0	163	1		
PM	70	0	134	0			70	0	136	0			87	0	141	0		
6:00 to 7:00	32	0	130	1	141	6	32	0	132	1	156	14	42	0	145	1	174	17
7:00 to 8:00	77	0	232	1	266	16	77	0	235	1	286	29	99	0	262	1	327	37
8:00 to 9:00	71	0	189	0	217	13	71	0	192	0	234	23	92	0	217	0	275	32
9:00 to 10:00	54	0	163	0	193	14	54	0	165	0	208	23	69	0	183	0	253	38
10:00 to 11:00	58	0	145	1	176	15	58	0	147	1	190	25	74	0	165	1	234	39
11:00 to 12:00	65	0	148	0	173	11	65	0	150	0	193	23	84	0	171	0	224	30
12:00 to 13:00	81	0	187	0	221	15	81	0	188	0	243	30	104	0	215	0	286	40
13:00 to 14:00	68	0	158	0	188	14	68	0	159	0	207	27	88	0	183	0	254	40
14:00 to 15:00	69	0	203	0	232	13	69	0	205	0	250	25	89	0	230	0	294	35
15:00 to 16:00	75	0	191	0	221	14	75	0	193	0	240	26	97	0	219	0	282	35
16:00 to 17:00	84	0	183	0	206	11	84	0	184	0	224	22	108	0	212	0	258	25
17:00 to 18:00	86	0	179	0	206	12	86	0	180	0	224	25	111	0	209	0	256	26
18:00 to 19:00	33	0	81	0	85	2	33	0	82	0	104	12	43	0	93	0	115	12
19:00 to 20:00	21	0	50	0	50	0	21	0	51	0	66	8	28	0	59	0	74	8

	LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor	NB/SB Major	EB Minor
AM	252	3			252	4			305	6		
PM	279	0			279	0			328	0		
6:00 to 7:00	159	3	188	19	159	4	188	20	192	6	221	22
7:00 to 8:00	252	3	317	39	252	4	317	40	305	6	370	42
8:00 to 9:00	193	0	251	32	193	0	251	32	233	0	291	32
9:00 to 10:00	177	0	247	38	177	0	247	38	214	0	284	38
10:00 to 11:00	141	3	210	41	141	4	210	42	171	6	240	44
11:00 to 12:00	135	0	188	30	135	0	188	30	163	0	216	30
12:00 to 13:00	220	0	291	40	220	0	291	40	259	0	330	40
13:00 to 14:00	187	0	258	40	187	0	258	40	220	0	291	40
14:00 to 15:00	279	0	343	35	279	0	343	35	328	0	392	35
15:00 to 16:00	242	0	305	35	242	0	305	35	285	0	348	35
16:00 to 17:00	206	0	252	25	206	0	252	25	242	0	288	25
17:00 to 18:00	193	0	240	26	193	0	240	26	227	0	274	26
18:00 to 19:00	100	0	122	12	100	0	122	12	117	0	139	12
19:00 to 20:00	61	0	76	8	61	0	76	8	72	0	87	8

#15 N Shirk St & W Sunnyview Ave/Ferguson Ave

Count Sheet 15_TMC.xls

	ADT	10850	820		ADT	10850	820		ADT	10910	840									
	AM	254	15	548	206	AM	254	15	560	211	AM	268	16	582	218	AM	873	237	AM	877	239	AM	904	243	
	PM	831	67	501	88	PM	831	67	511	89	PM	823	68	529	93	PM	1320	162	PM	1329	163	PM	1295	164	
		Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO		LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
		NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB
		Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00	to 7:00	372	28	758	177	824	183	372	28	766	181	936	202	375	29	785	187	988	212	615	171	818	196	617	173	820	198	636	176	839	201
7:00	to 8:00	885	67	1433	273	1628	291	885	67	1445	278	1810	323	890	68	1472	286	1934	343	873	237	1335	294	877	239	1339	296	904	243	1366	300
8:00	to 9:00	821	62	1290	199	1451	214	821	62	1300	202	1596	239	826	64	1324	209	1738	261	747	157	1161	209	750	159	1164	211	773	161	1187	213
9:00	to 10:00	621	47	979	141	1154	157	621	47	987	143	1290	180	624	48	1004	148	1499	209	570	108	1065	169	573	109	1068	170	590	111	1085	172
10:00	to 11:00	664	50	983	155	1163	172	664	50	990	157	1295	196	668	51	1007	162	1495	223	508	120	996	181	510	121	998	182	526	123	1014	184
11:00	to 12:00	755	57	1130	124	1276	138	755	57	1138	126	1442	163	760	58	1158	129	1537	177	597	77	976	125	600	78	979	126	618	79	997	127
12:00	to 13:00	934	71	1333	156	1529	174	934	71	1341	157	1735	206	939	72	1361	162	1863	225	1052	157	1554	220	1059	158	1561	221	1032	159	1534	222
13:00	to 14:00	787	59	1207	135	1383	151	787	59	1215	136	1558	179	791	61	1234	141	1737	204	1106	140	1609	203	1114	141	1617	204	1085	142	1588	205
14:00	to 15:00	798	60	1256	148	1427	164	798	60	1265	149	1588	189	803	62	1286	155	1740	212	1206	162	1660	219	1215	163	1669	220	1184	164	1638	221
15:00	to 16:00	868	66	1369	146	1545	163	868	66	1379	146	1713	187	873	67	1402	151	1848	207	1320	146	1766	202	1329	147	1775	203	1295	148	1741	204
16:00	to 17:00	967	73	1457	152	1594	165	967	73	1466	153	1749	189	972	75	1489	158	1814	198	1290	145	1615	185	1299	146	1624	186	1266	147	1591	187
17:00	to 18:00	997	75	1444	145	1599	160	997	75	1453	146	1766	185	1002	77	1474	151	1805	192	1177	129	1508	170	1185	130	1516	171	1154	131	1485	172
18:00	to 19:00	646	86	662	88	383	29	646	86	805	106	385	30	657	90	816	110	679	104	838	124	684	105	843	125	666	106	825	126		
19:00	to 20:00	407	59	408	59	247	19	410	59	520	72	249	19	418	61	528	74	422	73	532	86	425	74	535	87	414	74	524	87		

Existing Volumes

	EB/WB	NB		
		Minor Highest App (NB)		
	Major		Major %	Minor %
6:00 to 7:00	189	24	64%	45%
7:00 to 8:00	294	53	100%	100%
8:00 to 9:00	221	47	75%	89%
9:00 to 10:00	217	35	74%	66%
10:00 to 11:00	201	33	68%	62%
11:00 to 12:00	274	46	93%	87%
12:00 to 13:00	287	55	81%	89%
13:00 to 14:00	297	37	84%	60%
14:00 to 15:00	241	51	68%	82%
15:00 to 16:00	297	62	84%	100%
16:00 to 17:00	340	60	96%	97%
17:00 to 18:00	355	61	100%	98%
18:00 to 19:00	251	57	71%	92%
19:00 to 20:00	177	35	50%	56%

Trip Distribution - West

P1	NB	SB	EB	WB
Vehicles	1%	0%	3%	3%
Trucks	1%	0%	3%	3%

Trip Distribution - East

P1	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%

Trip Distribution - West

P2	NB	SB	EB	WB
Vehicles	1%	0%	3%	2%
Trucks	1%	0%	3%	2%

Trip Distribution - East

P2	NB	SB	EB	WB
Vehicles	0%	0%	1%	1%
Trucks	0%	0%	1%	1%

Trip Distribution - West

BO	NB	SB	EB	WB
Vehicles	1%	0%	3%	3%
Trucks	1%	0%	3%	3%

Trip Distribution - East

BO	NB	SB	EB	WB
Vehicles	0%	0%	1%	1%
Trucks	0%	0%	1%	1%

Trip Assignment

Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
11	1	40	3	48	3
34	3	86	6	108	7
28	3	70	5	97	6
30	3	71	5	116	8
31	3	71	5	115	8
25	2	71	5	89	6
34	3	93	6	117	8
30	3	80	5	117	8
29	3	76	5	106	7
30	3	78	5	105	7
23	2	67	4	76	5
27	2	74	5	78	5
4	0	37	2	37	2
0	0	26	2	26	2

	ADT	640	0		ADT	640	0		ADT	640	0									
	AM	29	0	308	55	AM	29	0	314	56	AM	29	0	326	58	AM	385	82	AM	400	97	AM	428	124	
	PM	35	0	389	71	PM	35	0	396	72	PM	35	0	413	75	PM	483	179	PM	500	232	PM	531	333	
		Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO		LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
		EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB
		Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00 to 7:00		22	0	220	25	231	26	19	0	221	25	261	28	19	0	229	26	277	29	248	37	296	40	257	44	305	47	275	56	323	59
7:00 to 8:00		52	0	360	55	394	58	29	0	343	56	429	62	29	0	355	58	463	65	385	82	493	89	400	97	508	104	428	124	536	131
8:00 to 9:00		48	0	280	49	308	52	22	0	258	50	328	55	22	0	267	51	364	57	289	73	386	79	301	86	398	92	322	110	419	116
9:00 to 10:00		37	0	264	36	294	39	21	0	253	37	324	42	21	0	262	38	378	46	284	54	400	62	295	64	411	72	316	82	432	90
10:00 to 11:00		39	0	250	34	281	37	20	0	235	35	306	40	20	0	243	36	358	44	263	51	378	59	273	60	388	68	293	77	408	85
11:00 to 12:00		45	0	332	48	357	50	27	0	320	49	391	54	27	0	331	50	420	56	359	71	448	77	373	84	462	90	399	108	488	114
12:00 to 13:00		55	0	369	63	403	66	28	0	348	64	441	70	28	0	362	67	479	75	390	159	507	167	404	206	521	214	429	295	546	303
13:00 to 14:00		46	0	371	42	401	45	29	0	360	43	440	48	29	0	375	45	492	53	404	107	521	115	418	138	535	146	444	199	561	207
14:00 to 15:00		47	0	311	58	340	61	24	0	293	59	369	64	24	0	304	62	410	69	328	147	434	154	339	191	445	198	360	274	466	281
15:00 to 16:00		51	0	376	71	406	74	29	0	360	72	438	77	29	0	375	75	480	82	404	179	509	186	418	232	523	239	444	333	549	340
16:00 to 17:00		57	0	430	69	453	71	34	0	413	70	480	74	34	0	430	73	506	78	463	173	539	178	479	225	555	230	509	322	585	327
17:00 to 18:00		59	0	448	70	475	72	35	0	431	71	505	76	35	0	448	74	526	79	483	176	561	181	500	228	578	233	531	328	609	333
18:00 to 19:00		23	0	298	65	302	65	25	0	305	66	342	68	25	0	317	69	354	71	342	165	379	167	354	213	391	215	375	306	412	308
19:00 to 20:00		15	0	209	40	209	40	17	0	214	41	240	43	17	0	223	42	249	44	241	101	267	103	249	131	275	133	265	188	291	190

#21 N Akers St & Avenue 320

Count Sheet 21_TMC.xls

	ADT	1100	140		ADT	1100	140		ADT	1370	230									
	AM	53	7	116	39	AM	53	7	117	39	AM	64	12	121	41	AM	249	72	AM	254	79	AM	320	100	
	PM	57	7	124	70	PM	57	7	127	72	PM	73	11	131	74	PM	308	102	PM	324	110	PM	432	129	
		Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26		NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO		LT 33		LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
		EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB	EB/WB	NB
		Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00 to 7:00		94	27	88%	66%	9	1	35	3	42	3	38	5	140	31	149	32	38	5	141	31	176	34	47	8	153	35	195	38	219	47
7:00 to 8:00		107	41	100%	100%	27	3	74	6	94	7	90	11	206	50	233	53	90	11	207	50	281	56	112	19	233	60	327	67	249	72
8:00 to 9:00		86	28	80%	68%	23	3	61	5	84	6	83	11	176	38	199	41	83	11	177	38	238	43	104	17	201	45	285	51	200	49
9:00 to 10:00		88	30	82%	73%	25	3	62	5	101	8	63	8	158	37	183	40	63	8	159	37	221	42	78	13	178	43	279	51	205	53
10:00 to 11:00		77	35	72%	85%	25	3	62	5	100	8	67	9	150	42	175	45	67	9	151	42	213	47	84	14	171	49	271	57	179	61
11:00 to 12:00		83	27	78%	66%	20	2	62	5	77	6	77	10	167	36	187	38	77	10	168	36	230	41	95	16	189	43	266	49	193	47
12:00 to 13:00		74	24	55%	44%	28	3	80	6	102	8	95	12	163	43	191	46	95	12	165	43	245	49	118	20	190	52	292	60	169	45
13:00 to 14:00		85	27	63%	49%	25	3	69	5	102	8	80	10	158	44	183	47	80	10	160	45	229	50	99	17	181	53	283	61	194	50
14:00 to 15:00		135	43	100%	78%	24	3	65	5	92	7	81	10	205	65	229	68	81	10	208	66	273	71	101	17	232	75	324	82	308	80
15:00 to 16:00		106	40	79%	73%	25	3	68	5	91	7	88	11	185	62	210	65	88	11	188	63	256	68	110	18	213	72	304	79	242	74
16:00 to 17:00		120	41	89%	75%	19	2	58	4	66	5	98	12	208	64	227	66	98	12	211	66	269	70	122	20	238	75	304	80	274	76
17:00 to 18:00		111	55	82%	100%	22	2	64	5	68	5	101	13	203	83	225	85	101	13	205	85	269	90	126	21	234	95	302	100	253	102
18:00 to 19:00		87	21	64%	38%	3	0	32	2	32	2	39	5	119	32	122	32	39	5	121	32	153	34	48	8	132	36	164	38	198	39
19:00 to 20:00		64	15	47%	27%	0	0	22	2	22	2	25	3	84	22	84	22	25	3	85	23	107	25	31	5	93	25	115	27	146	28

Existing Volumes

	EB/WB	NB		
		Minor Highest App (NB)		
	Major		Major %	Minor %
6:00 to 7:00	94	27	88%	66%
7:00 to 8:00	107	41	100%	100%
8:00 to 9:00	86	28	80%	68%
9:00 to 10:00	88	30	82%	73%
10:00 to 11:00	77	35	72%	85%
11:00 to 12:00	83	27	78%	66%
12:00 to 13:00	74	24	55%	44%
13:00 to 14:00	85	27	63%	49%
14:00 to 15:00	135	43	100%	78%
15:00 to 16:00	106	40	79%	73%
16:00 to 17:00	120	41	89%	75%
17:00 to 18:00	111	55	82%	100%
18:00 to 19:00	87	21	64%	38%
19:00 to 20:00	64	15	47%	27%

Trip Distribution - West

P1	NB	SB	EB	WB
Vehicles	1%	0%	3%	2%
Trucks	1%	0%	3%	2%

Trip Distribution - East

P1	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%

Trip Distribution - West

P2	NB	SB	EB	WB
Vehicles	1%	0%	3%	2%
Trucks	1%	0%	3%	2%

Trip Distribution - East

P2	NB	SB	EB	WB
Vehicles	0%	0%	1%	1%
Trucks	0%	0%	1%	1%

Trip Distribution - West

BO	NB	SB	EB	WB
Vehicles	1%	0%	3%	2%
Trucks	1%	0%	3%	2%

Trip Distribution - East

BO	NB	SB	EB	WB
Vehicles	0%	0%	1%	1%
Trucks	0%	0%	1%	1%

Trip Assignment

Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
9	1	35	3	42	3
27	3	74	6	94	7
23	3	61	5	84	6
25	3	62	5	101	8
25	3	62	5	100	8
20	2	62	5	77	6
28	3	80	6	102	8
25	3	69	5	102	8
24	3	65	5	92	7
25	3	68	5	91	7
19	2	58	4	66	5
22	2	64	5	68	5
3	0	32	2	32	2
0	0	22	2	22	2

#22 N Akers St & Future Shannon Pkwy

Count Sheet 22_TMC.xls

			Existing Volumes				Trip Assignment					
			NB/SB	WB								
			Major	Minor Highest App (WB)	Major %	Minor %	Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
6:00	to	7:00	47	0	57%	0%	3	3	8	13	10	16
7:00	to	8:00	82	1	100%	100%	9	9	17	28	22	36
8:00	to	9:00	57	0	70%	0%	8	8	14	23	19	32
9:00	to	10:00	62	0	76%	0%	8	8	14	23	23	38
10:00	to	11:00	67	0	82%	0%	8	8	14	24	23	38
11:00	to	12:00	50	0	61%	0%	7	7	14	23	18	30
12:00	to	13:00	45	1	51%	100%	9	9	18	30	24	40
13:00	to	14:00	51	0	58%	0%	8	8	16	27	24	40
14:00	to	15:00	78	0	89%	0%	8	8	15	25	21	35
15:00	to	16:00	81	1	92%	100%	8	8	16	26	21	35
16:00	to	17:00	86	0	98%	0%	6	6	13	22	15	25
17:00	to	18:00	88	1	100%	100%	7	7	15	25	16	26
18:00	to	19:00	45	0	51%	0%	1	1	7	12	7	12
19:00	to	20:00	31	0	35%	0%	0	0	5	8	5	8

Trip Distribution - West				
P1	NB	SB	EB	WB
Vehicles	1%	1%	0%	2%
Trucks	1%	1%	0%	2%
Trip Distribution - East				
P1	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%
Trip Distribution - West				
P2	NB	SB	EB	WB
Vehicles	1%	1%	0%	2%
Trucks	1%	1%	0%	2%
Trip Distribution - East				
P2	NB	SB	EB	WB
Vehicles	0%	0%	0%	1%
Trucks	0%	0%	0%	1%
Trip Distribution - West				
BO	NB	SB	EB	WB
Vehicles	1%	1%	0%	2%
Trucks	1%	1%	0%	2%
Trip Distribution - East				
BO	NB	SB	EB	WB
Vehicles	0%	0%	0%	1%
Trucks	0%	0%	0%	1%

	Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26	
ADT	670	0					670	0		
AM	38	0	84	0			38	0	86	0
PM	29	0	117	1			29	0	118	1
	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00	23	0	71	0	74	3	30	0	79	0
7:00	55	0	139	0	148	9	53	7	139	7
8:00	51	0	109	0	117	8	37	0	97	0
9:00	38	0	102	0	110	8	40	0	105	0
10:00	41	0	110	0	118	8	43	0	113	0
11:00	47	0	98	0	105	7	32	0	84	0
12:00	58	0	118	1	127	10	29	7	89	8
13:00	49	0	117	0	125	8	33	0	101	0
14:00	49	0	153	0	161	8	51	0	156	0
15:00	54	0	162	1	170	9	52	7	161	8
16:00	60	0	174	0	180	6	56	0	171	0
17:00	62	0	179	1	186	8	57	7	175	8
18:00	24	0	84	0	85	1	29	0	89	0
19:00	15	0	56	0	56	0	20	0	62	0

	NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO		LT 33	
ADT			770	0						
AM			43	0	90	0			149	0
PM			34	0	123	1			212	12
	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00	87	13	37	0	89	0	99	16	85	0
7:00	156	35	64	12	154	12	176	48	149	0
8:00	111	23	44	0	107	0	126	32	104	0
9:00	119	23	48	0	116	0	139	38	113	0
10:00	127	24	52	0	126	0	149	38	122	0
11:00	98	23	39	0	94	0	112	30	91	0
12:00	107	38	37	11	100	12	124	52	108	12
13:00	117	27	42	0	113	0	137	40	123	0
14:00	171	25	65	0	174	0	195	35	188	0
15:00	177	34	67	11	180	12	201	47	195	12
16:00	184	22	71	0	191	0	206	25	207	0
17:00	190	33	73	11	196	12	212	38	212	12
18:00	96	12	37	0	100	0	107	12	108	0
19:00	67	8	26	0	69	0	74	8	75	0

	LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
AM			155	0			182	0		
PM			230	14			300	17		
	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB	NB/SB	WB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00	95	16	89	0	99	16	104	0	114	16
7:00	171	36	155	0	177	36	182	0	204	36
8:00	123	32	108	0	127	32	127	0	146	32
9:00	136	38	117	0	140	38	138	0	161	38
10:00	145	38	127	0	150	38	149	0	172	38
11:00	109	30	95	0	113	30	111	0	129	30
12:00	132	52	118	14	142	54	153	17	177	57
13:00	147	40	133	0	157	40	174	0	198	40
14:00	209	35	204	0	225	35	266	0	287	35
15:00	216	47	212	14	233	49	276	17	297	52
16:00	222	25	225	0	240	25	293	0	308	25
17:00	228	38	230	14	246	40	300	17	316	43
18:00	115	12	118	0	125	12	153	0	160	12
19:00	80	8	81	0	86	8	106	0	111	8

#114 N Shirk St & Sedona Ave

Count Sheet

			Existing Volumes				Trip Assignment					
			NB/SB	EB/WB								
			Major	Minor Highest App	Major %	Minor %	Phase 1 Major	Phase 1 Minor	Phase 2 Major	Phase 2 Minor	BO Major	BO Minor
6:00	to	7:00	99	0	63%	0%	0	0	0	0	175	58
7:00	to	8:00	157	1	100%	100%	0	0	0	0	179	60
8:00	to	9:00	120	1	100%	100%	0	0	0	0	211	70
9:00	to	10:00	110	0	80%	0%	0	0	0	0	216	72
10:00	to	11:00	88	0	64%	0%	0	0	0	0	214	71
11:00	to	12:00	84	0	61%	0%	0	0	0	0	139	46
12:00	to	13:00	108	0	79%	0%	0	0	0	0	94	31
13:00	to	14:00	92	0	67%	0%	0	0	0	0	0	0
14:00	to	15:00	137	1	100%	100%	0	0	0	0	0	0
15:00	to	16:00	119	0	87%	0%	0	0	0	0	0	0
16:00	to	17:00	101	0	74%	0%	0	0	0	0	0	0
17:00	to	18:00	95	0	69%	0%	0	0	0	0	0	0
18:00	to	19:00	49	0	36%	0%	0	0	0	0	0	0
19:00	to	20:00	30	0	22%	0%	0	0	0	0	0	0

Trip Distribution - West				
P1	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%
Trip Distribution - East				
P1	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%
Trip Distribution - West				
P2	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%
Trip Distribution - East				
P2	NB	SB	EB	WB
Vehicles	0%	0%	0%	0%
Trucks	0%	0%	0%	0%
Trip Distribution - West				
BO	NB	SB	EB	WB
Vehicles	2%	2%	0%	0%
Trucks	2%	2%	0%	0%
Trip Distribution - East				
BO	NB	SB	EB	WB
Vehicles	0%	0%	1%	0%
Trucks	0%	0%	1%	0%

	Cum Proj -Ph 1		NT 25		NT 25 + Ph1		Cum Proj -Ph 2		NT 26	
ADT	0	0					0	0		
AM	0	0	0	0			0	0	0	0
PM	0	0	0	0			0	0	0	0
	NB/SB	EB/WB	NB/SB	EB/WB	NB/SB	EB/WB	NB/SB	EB/WB	NB/SB	EB/WB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0

	NT 26 + Phase 2		Cum Proj -Ph 3		NT 28		NT 28 + BO		LT 33	
ADT			4760	0						
AM			113	0	154	0			231	29
PM			363	0	133	0			265	27
	NB/SB	EB/WB	NB/SB	EB	NB/SB	EB	NB/SB	EB	NB/SB	EB/WB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00	0	0	163	0	266	0	441	58	146	18
7:00	0	0	388	0	552	0	731	60	231	29
8:00	0	0	360	0	524	0	735	70	231	29
9:00	0	0	272	0	404	0	620	72	185	23
10:00	0	0	291	0	396	0	610	71	148	19
11:00	0	0	331	0	432	0	571	46	142	18
12:00	0	0	410	0	521	0	615	31	209	21
13:00	0	0	345	0	440	0	440	0	178	18
14:00	0	0	350	0	491	0	491	0	265	27
15:00	0	0	381	0	503	0	503	0	230	23
16:00	0	0	424	0	528	0	528	0	195	20
17:00	0	0	437	0	535	0	535	0	184	19
18:00	0	0	168	0	218	0	218	0	95	10
19:00	0	0	108	0	139	0	139	0	58	6

	LT 33 +BO		LT 38		LT 38 + BO		LT 48		LT 48 + BO	
AM			231	29			276	44		
PM			265	27			306	41		
	NB/SB	EB/WB	NB/SB	EB/WB	NB/SB	EB/WB	NB/SB	EB/WB	NB/SB	EB/WB
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor
6:00	321	76	146	18	321	76	174	28	349	86
7:00	410	89	231	29	410	89	276	44	455	104
8:00	442	99	231	29	442	99	276	44	487	114
9:00	401	95	185	23	401	95	222	35	438	107
10:00	362	90	148	19	362	90	177	28	391	99
11:00	281	64	142	18	281	64	169	27	308	73
12:00	303	52	209	21	303	52	241	32	335	63
13:00	178	18	178	18	178	18	205	28	205	28
14:00	265	27	265	27	265	27	306	41	306	41
15:00	230	23	230	23	230	23	266	36	266	36
16:00	195	20	195	20	195	20	226	30	226	30
17:00	184	19	184	19	184	19	212	28	212	28
18:00	95	10	95	10	95	10	109	15	109	15
19:00	58	6	58	6	58	6	67	9	67	9

Warrant	Title			Standard
1	Eight-Hour Volume			The need for a traffic control signal shall be considered if an engineering study finds that 1 of the following conditions exist for each of any 8 hours of an average day. In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
-	Condition A	Part 1	Part 2	A. The vehicles per hour given in both of the 100%/80% columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection, or
-	Condition B	Part 1	Part 2	A. The vehicles per hour given in both of the 100%/80% columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.
2	Four-Hour Volume			See Figure 4C-1 or 4C-2 in MUTCD.
3	Peak Hour Volume			This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following 2 categories are met: A. If all 3 of the following conditions exist for the same 1 hour of an average day: 1. The total stopped time delay experience by the traffic on 1 minor-street approach (1 direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a 1-lane approach; or 5 vehicle-hours for a 2-lane approach, and 2. The volume on the same minor-street approach (1 direction only) equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes, and 3. The total entering volume serviced during the hour equals or exceeds 650 vph for intersections with 3 approaches or 800 vph for intersections with 4 or more approaches. B. See Figure 4C-3 or 4C-4 in MUTCD.
4	Pedestrian Volume			See Page 4C-5 in MUTCD
5	School Crossing			See Page 4C-5 in MUTCD
6	Coordinated Signal System			See Page 4C-6 in MUTCD
7	Crash Experience			The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met: A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and B. 5 or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and C. For each of any 8 hours of an average day, the vph given in both the 80% columns of Condition A in Table 4C-1, or the vph in both of the 80% columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80% of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.
8	Roadway Network			See page 4C-7 in MUTCD

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Kelsey St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Shannon Parkway/Riverway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	245	3															
07:00 AM	TO	08:00 AM	526	4		Y						Y							
08:00 AM	TO	09:00 AM	454	4								Y							
09:00 AM	TO	10:00 AM	346	4															
10:00 AM	TO	11:00 AM	371	4															
11:00 AM	TO	12:00 PM	426	4								Y							
12:00 PM	TO	01:00 PM	565	3		Y						Y							
01:00 PM	TO	02:00 PM	464	2								Y							
02:00 PM	TO	03:00 PM	477	2								Y							
03:00 PM	TO	04:00 PM	509	2		Y						Y							
04:00 PM	TO	05:00 PM	559	3		Y						Y							
05:00 PM	TO	06:00 PM	656	3		Y						Y			Y				
06:00 PM	TO	07:00 PM	339	1															
07:00 PM	TO	08:00 PM	147	1															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			6,084	40		5	0	**0**	0	0	**0**	9	0	**0**	1	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Kelsey St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Shannon Parkway/Riverway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	271	8															
07:00 AM	TO	08:00 AM	602	19		Y						Y			Y				
08:00 AM	TO	09:00 AM	517	17		Y						Y							
09:00 AM	TO	10:00 AM	414	18								Y							
10:00 AM	TO	11:00 AM	441	18								Y							
11:00 AM	TO	12:00 PM	483	15								Y							
12:00 PM	TO	01:00 PM	641	18		Y						Y			Y				
01:00 PM	TO	02:00 PM	533	16		Y						Y							
02:00 PM	TO	03:00 PM	544	15		Y						Y							
03:00 PM	TO	04:00 PM	578	16		Y						Y							
04:00 PM	TO	05:00 PM	612	14		Y						Y			Y				
05:00 PM	TO	06:00 PM	717	15		Y						Y			Y				
06:00 PM	TO	07:00 PM	347	3															
07:00 PM	TO	08:00 PM	147	1															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			6,847	193		8	0	**0**	0	0	**0**	11	0	**0**	4	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Kelsey St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Shannon Parkway/Riverway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	246	3															
07:00 AM	TO	08:00 AM	527	4		Y						Y							
08:00 AM	TO	09:00 AM	454	4								Y							
09:00 AM	TO	10:00 AM	347	4															
10:00 AM	TO	11:00 AM	372	4															
11:00 AM	TO	12:00 PM	427	4								Y							
12:00 PM	TO	01:00 PM	567	3		Y						Y							
01:00 PM	TO	02:00 PM	465	2								Y							
02:00 PM	TO	03:00 PM	478	2								Y							
03:00 PM	TO	04:00 PM	510	2		Y						Y							
04:00 PM	TO	05:00 PM	560	3		Y						Y							
05:00 PM	TO	06:00 PM	659	3		Y						Y			Y				
06:00 PM	TO	07:00 PM	342	1															
07:00 PM	TO	08:00 PM	147	1															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			6,101	40		5	0	**0**	0	0	**0**	9	0	**0**	1	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Kelsey St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Shannon Parkway/Riverway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	318	16															
07:00 AM	TO	08:00 AM	681	32		Y						Y			Y				
08:00 AM	TO	09:00 AM	580	27		Y						Y							
09:00 AM	TO	10:00 AM	475	27								Y							
10:00 AM	TO	11:00 AM	501	28		Y						Y							
11:00 AM	TO	12:00 PM	555	27		Y						Y							
12:00 PM	TO	01:00 PM	734	33		Y						Y			Y				
01:00 PM	TO	02:00 PM	609	29		Y						Y			Y				
02:00 PM	TO	03:00 PM	614	27		Y						Y			Y				
03:00 PM	TO	04:00 PM	651	28		Y						Y			Y				
04:00 PM	TO	05:00 PM	680	25		Y						Y			Y				
05:00 PM	TO	06:00 PM	791	28		Y			Y			Y			Y				
06:00 PM	TO	07:00 PM	409	13								Y							
07:00 PM	TO	08:00 PM	193	9															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			7,791	349		10	0	**0**	1	0	**0**	12	0	**0**	7	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Kelsey St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Shannon Parkway/Riverway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM TO 07:00 AM	247	3															
07:00 AM TO 08:00 AM	529	4		Y						Y							
08:00 AM TO 09:00 AM	455	4								Y							
09:00 AM TO 10:00 AM	347	4															
10:00 AM TO 11:00 AM	372	4															
11:00 AM TO 12:00 PM	428	4								Y							
12:00 PM TO 01:00 PM	569	3		Y						Y							
01:00 PM TO 02:00 PM	467	2								Y							
02:00 PM TO 03:00 PM	479	2								Y							
03:00 PM TO 04:00 PM	511	2		Y						Y							
04:00 PM TO 05:00 PM	561	3		Y						Y							
05:00 PM TO 06:00 PM	663	3		Y						Y			Y				
06:00 PM TO 07:00 PM	346	1															
07:00 PM TO 08:00 PM	148	1															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	6,122	40		5	0	**0**	0	0	**0**	9	0	**0**	1	0	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Kelsey St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Shannon Parkway/Riverway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM TO 07:00 AM	333	19															
07:00 AM TO 08:00 AM	724	40		Y						Y			Y				
08:00 AM TO 09:00 AM	630	36		Y						Y			Y				
09:00 AM TO 10:00 AM	556	42		Y						Y							
10:00 AM TO 11:00 AM	578	42		Y						Y							
11:00 AM TO 12:00 PM	588	34		Y						Y							
12:00 PM TO 01:00 PM	780	43		Y			Y			Y			Y				
01:00 PM TO 02:00 PM	679	42		Y						Y			Y				
02:00 PM TO 03:00 PM	670	37		Y						Y			Y				
03:00 PM TO 04:00 PM	699	37		Y						Y			Y				
04:00 PM TO 05:00 PM	698	28		Y						Y			Y				
05:00 PM TO 06:00 PM	803	29		Y			Y			Y			Y				
06:00 PM TO 07:00 PM	413	13								Y							
07:00 PM TO 08:00 PM	194	9															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	8,345	451		11	0	**0**	2	0	**0**	12	0	**0**	8	0	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Unnamed North Road** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	1	5															
07:00 AM	TO	08:00 AM	1	5															
08:00 AM	TO	09:00 AM	1	3															
09:00 AM	TO	10:00 AM	1	5															
10:00 AM	TO	11:00 AM	1	3															
11:00 AM	TO	12:00 PM	1	3															
12:00 PM	TO	01:00 PM	0	0															
01:00 PM	TO	02:00 PM	0	0															
02:00 PM	TO	03:00 PM	0	0															
03:00 PM	TO	04:00 PM	0	0															
04:00 PM	TO	05:00 PM	0	4															
05:00 PM	TO	06:00 PM	0	0															
06:00 PM	TO	07:00 PM	0	0															
07:00 PM	TO	08:00 PM	0	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			6	28		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Unnamed North Road** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	11	5															
07:00 AM	TO	08:00 AM	31	5															
08:00 AM	TO	09:00 AM	26	3															
09:00 AM	TO	10:00 AM	28	5															
10:00 AM	TO	11:00 AM	29	3															
11:00 AM	TO	12:00 PM	24	3															
12:00 PM	TO	01:00 PM	31	0															
01:00 PM	TO	02:00 PM	27	0															
02:00 PM	TO	03:00 PM	27	0															
03:00 PM	TO	04:00 PM	28	0															
04:00 PM	TO	05:00 PM	21	4															
05:00 PM	TO	06:00 PM	24	0															
06:00 PM	TO	07:00 PM	3	0															
07:00 PM	TO	08:00 PM	0	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			310	28		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Unnamed North Road** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	1	5															
07:00 AM	TO	08:00 AM	1	5															
08:00 AM	TO	09:00 AM	1	3															
09:00 AM	TO	10:00 AM	1	5															
10:00 AM	TO	11:00 AM	1	3															
11:00 AM	TO	12:00 PM	1	3															
12:00 PM	TO	01:00 PM	0	0															
01:00 PM	TO	02:00 PM	0	0															
02:00 PM	TO	03:00 PM	0	0															
03:00 PM	TO	04:00 PM	0	0															
04:00 PM	TO	05:00 PM	0	4															
05:00 PM	TO	06:00 PM	0	0															
06:00 PM	TO	07:00 PM	0	0															
07:00 PM	TO	08:00 PM	0	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			6	28		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Unnamed North Road** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	28	5															
07:00 AM	TO	08:00 AM	58	5															
08:00 AM	TO	09:00 AM	48	3															
09:00 AM	TO	10:00 AM	48	5															
10:00 AM	TO	11:00 AM	49	3															
11:00 AM	TO	12:00 PM	48	3															
12:00 PM	TO	01:00 PM	62	0															
01:00 PM	TO	02:00 PM	53	0															
02:00 PM	TO	03:00 PM	50	0															
03:00 PM	TO	04:00 PM	52	0															
04:00 PM	TO	05:00 PM	45	4															
05:00 PM	TO	06:00 PM	49	0															
06:00 PM	TO	07:00 PM	25	0															
07:00 PM	TO	08:00 PM	17	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			632	28		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Unnamed North Road** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	1	5															
07:00 AM	TO	08:00 AM	1	5															
08:00 AM	TO	09:00 AM	1	3															
09:00 AM	TO	10:00 AM	1	5															
10:00 AM	TO	11:00 AM	1	3															
11:00 AM	TO	12:00 PM	1	3															
12:00 PM	TO	01:00 PM	0	0															
01:00 PM	TO	02:00 PM	0	0															
02:00 PM	TO	03:00 PM	0	0															
03:00 PM	TO	04:00 PM	0	0															
04:00 PM	TO	05:00 PM	0	4															
05:00 PM	TO	06:00 PM	0	0															
06:00 PM	TO	07:00 PM	0	0															
07:00 PM	TO	08:00 PM	0	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			6	28		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Unnamed North Road** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	33	5															
07:00 AM	TO	08:00 AM	73	5															
08:00 AM	TO	09:00 AM	66	3															
09:00 AM	TO	10:00 AM	78	5															
10:00 AM	TO	11:00 AM	78	3															
11:00 AM	TO	12:00 PM	61	3															
12:00 PM	TO	01:00 PM	78	0															
01:00 PM	TO	02:00 PM	78	0															
02:00 PM	TO	03:00 PM	71	0															
03:00 PM	TO	04:00 PM	70	0															
04:00 PM	TO	05:00 PM	50	4															
05:00 PM	TO	06:00 PM	52	0															
06:00 PM	TO	07:00 PM	25	0															
07:00 PM	TO	08:00 PM	17	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			830	28		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Riggin Avenue** EB WB # OF APPROACH LANES: **2**

MINOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **Y**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	802	1		Y			Y			Y			Y				
07:00 AM	TO	08:00 AM	1,327	2		Y			Y			Y			Y				
08:00 AM	TO	09:00 AM	1,177	2		Y			Y			Y			Y				
09:00 AM	TO	10:00 AM	833	2		Y			Y			Y			Y				
10:00 AM	TO	11:00 AM	885	2		Y			Y			Y			Y				
11:00 AM	TO	12:00 PM	906	2		Y			Y			Y			Y				
12:00 PM	TO	01:00 PM	1,405	3		Y			Y			Y			Y				
01:00 PM	TO	02:00 PM	1,305	2		Y			Y			Y			Y				
02:00 PM	TO	03:00 PM	1,313	2		Y			Y			Y			Y				
03:00 PM	TO	04:00 PM	1,362	2		Y			Y			Y			Y				
04:00 PM	TO	05:00 PM	1,415	3		Y			Y			Y			Y				
05:00 PM	TO	06:00 PM	1,483	3		Y			Y			Y			Y				
06:00 PM	TO	07:00 PM	884	1		Y			Y			Y			Y				
07:00 PM	TO	08:00 PM	575	1		Y						Y			Y				
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			15,672	28		14	0	**0**	13	0	**0**	14	0	**0**	14	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Riggin Avenue** EB WB # OF APPROACH LANES: **2**

MINOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **Y**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	884	57		Y			Y	Y	**Y**	Y			Y	Y	**Y**		
07:00 AM	TO	08:00 AM	1,571	167		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,378	138		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	1,051	149		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	1,109	153		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,088	125		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,650	168		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,524	150		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,527	146		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,582	151		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,586	118		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,677	134		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	910	19		Y			Y			Y			Y				
07:00 PM	TO	08:00 PM	576	2		Y						Y			Y				
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			18,113	1,677		14	11	**11**	13	12	**12**	14	11	**11**	14	12	**12**	**11**	**11**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Riggin Avenue** EB WB # OF APPROACH LANES: **2**

MINOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **Y**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	811	1		Y			Y			Y			Y				
07:00 AM	TO	08:00 AM	1,339	2		Y			Y			Y			Y				
08:00 AM	TO	09:00 AM	1,187	2		Y			Y			Y			Y				
09:00 AM	TO	10:00 AM	840	2		Y			Y			Y			Y				
10:00 AM	TO	11:00 AM	892	2		Y			Y			Y			Y				
11:00 AM	TO	12:00 PM	912	2		Y			Y			Y			Y				
12:00 PM	TO	01:00 PM	1,417	3		Y			Y			Y			Y				
01:00 PM	TO	02:00 PM	1,317	2		Y			Y			Y			Y				
02:00 PM	TO	03:00 PM	1,325	2		Y			Y			Y			Y				
03:00 PM	TO	04:00 PM	1,375	2		Y			Y			Y			Y				
04:00 PM	TO	05:00 PM	1,427	3		Y			Y			Y			Y				
05:00 PM	TO	06:00 PM	1,496	3		Y			Y			Y			Y				
06:00 PM	TO	07:00 PM	894	1		Y			Y			Y			Y				
07:00 PM	TO	08:00 PM	582	1		Y						Y			Y				
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			15,814	28		14	0	**0**	13	0	**0**	14	0	**0**	14	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Riggin Avenue** EB WB # OF APPROACH LANES: **2**

MINOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **Y**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	992	102		Y			Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 AM	TO	08:00 AM	1,727	219		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,502	178		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	1,162	182		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	1,216	183		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,235	182		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,836	237		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,681	206		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,668	194		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,730	200		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,728	171		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,829	189		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	1,063	95		Y			Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 PM	TO	08:00 PM	699	66		Y			Y	Y	**Y**	Y			Y	Y	**Y**		
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			20,068	2,404		14	11	**11**	14	14	**14**	14	13	**13**	14	14	**14**	**13**	**11**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Riggin Avenue** EB WB # OF APPROACH LANES: **2**

MINOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **Y**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	837	1		Y			Y			Y			Y				
07:00 AM	TO	08:00 AM	1,381	3		Y			Y			Y			Y				
08:00 AM	TO	09:00 AM	1,224	3		Y			Y			Y			Y				
09:00 AM	TO	10:00 AM	865	2		Y			Y			Y			Y				
10:00 AM	TO	11:00 AM	919	2		Y			Y			Y			Y				
11:00 AM	TO	12:00 PM	939	3		Y			Y			Y			Y				
12:00 PM	TO	01:00 PM	1,461	3		Y			Y			Y			Y				
01:00 PM	TO	02:00 PM	1,359	3		Y			Y			Y			Y				
02:00 PM	TO	03:00 PM	1,367	3		Y			Y			Y			Y				
03:00 PM	TO	04:00 PM	1,418	3		Y			Y			Y			Y				
04:00 PM	TO	05:00 PM	1,472	4		Y			Y			Y			Y				
05:00 PM	TO	06:00 PM	1,542	4		Y			Y			Y			Y				
06:00 PM	TO	07:00 PM	924	1		Y			Y			Y			Y				
07:00 PM	TO	08:00 PM	600	1		Y						Y			Y				
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			16,308	36		14	0	**0**	13	0	**0**	14	0	**0**	14	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Riggin Avenue** EB WB # OF APPROACH LANES: **2**

MINOR STREET: **Future N Clancy St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **Y**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	1,053	121		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 AM	TO	08:00 AM	1,872	277		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,664	249		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	1,391	296		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	1,438	292		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,342	228		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,994	301		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,893	301		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,849	273		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,892	268		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,817	197		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,894	201		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	1,093	95		Y			Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 PM	TO	08:00 PM	717	66		Y			Y	Y	**Y**	Y			Y	Y	**Y**		
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			21,909	3,165		14	12	**12**	14	14	**14**	14	13	**13**	14	14	**14**	**13**	**13**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Shirk Street** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	86	54															
07:00 AM	TO	08:00 AM	248	77						Y						Y			
08:00 AM	TO	09:00 AM	156	84						Y						Y			
09:00 AM	TO	10:00 AM	101	66												Y			
10:00 AM	TO	11:00 AM	71	73												Y			
11:00 AM	TO	12:00 PM	104	59															
12:00 PM	TO	01:00 PM	121	93						Y						Y			
01:00 PM	TO	02:00 PM	128	114						Y						Y			
02:00 PM	TO	03:00 PM	136	112						Y						Y			
03:00 PM	TO	04:00 PM	186	123						Y			Y			Y			
04:00 PM	TO	05:00 PM	198	117						Y						Y			
05:00 PM	TO	06:00 PM	204	109						Y						Y			
06:00 PM	TO	07:00 PM	115	42															
07:00 PM	TO	08:00 PM	75	22															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			1,929	1,145		0	0	**0**	0	8	**0**	0	1	**0**	0	10	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Shirk Street** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	93	57															
07:00 AM	TO	08:00 AM	269	86						Y						Y			
08:00 AM	TO	09:00 AM	174	92						Y						Y			
09:00 AM	TO	10:00 AM	120	74												Y			
10:00 AM	TO	11:00 AM	91	81						Y						Y			
11:00 AM	TO	12:00 PM	120	66												Y			
12:00 PM	TO	01:00 PM	142	102						Y						Y			
01:00 PM	TO	02:00 PM	147	122						Y			Y			Y			
02:00 PM	TO	03:00 PM	155	120						Y			Y			Y			
03:00 PM	TO	04:00 PM	205	131						Y			Y			Y			
04:00 PM	TO	05:00 PM	213	123						Y			Y			Y			
05:00 PM	TO	06:00 PM	221	116						Y						Y			
06:00 PM	TO	07:00 PM	117	43															
07:00 PM	TO	08:00 PM	75	22															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,142	1,235		0	0	**0**	0	9	**0**	0	4	**0**	0	11	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Shirk Street** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	88	54															
07:00 AM	TO	08:00 AM	252	77						Y						Y			
08:00 AM	TO	09:00 AM	158	84						Y						Y			
09:00 AM	TO	10:00 AM	103	66												Y			
10:00 AM	TO	11:00 AM	72	73												Y			
11:00 AM	TO	12:00 PM	106	59															
12:00 PM	TO	01:00 PM	122	94						Y						Y			
01:00 PM	TO	02:00 PM	129	115						Y						Y			
02:00 PM	TO	03:00 PM	138	114						Y						Y			
03:00 PM	TO	04:00 PM	188	125						Y			Y			Y			
04:00 PM	TO	05:00 PM	200	119						Y						Y			
05:00 PM	TO	06:00 PM	206	110						Y						Y			
06:00 PM	TO	07:00 PM	117	42															
07:00 PM	TO	08:00 PM	76	22															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			1,955	1,154		0	0	**0**	0	8	**0**	0	1	**0**	0	10	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Shirk Street** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	118	62												Y			
07:00 AM	TO	08:00 AM	315	94						Y						Y			
08:00 AM	TO	09:00 AM	209	98						Y						Y			
09:00 AM	TO	10:00 AM	155	80						Y						Y			
10:00 AM	TO	11:00 AM	124	87						Y						Y			
11:00 AM	TO	12:00 PM	158	73												Y			
12:00 PM	TO	01:00 PM	190	112						Y						Y			
01:00 PM	TO	02:00 PM	188	131						Y			Y			Y			
02:00 PM	TO	03:00 PM	193	129						Y			Y			Y			
03:00 PM	TO	04:00 PM	245	141						Y			Y			Y			
04:00 PM	TO	05:00 PM	249	132						Y			Y			Y			
05:00 PM	TO	06:00 PM	260	125						Y			Y			Y			
06:00 PM	TO	07:00 PM	144	49															
07:00 PM	TO	08:00 PM	95	27															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,643	1,340		0	0	**0**	0	10	**0**	0	5	**0**	0	12	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Shirk Street** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	94	56															
07:00 AM	TO	08:00 AM	270	80						Y						Y			
08:00 AM	TO	09:00 AM	171	87						Y						Y			
09:00 AM	TO	10:00 AM	112	68												Y			
10:00 AM	TO	11:00 AM	80	76						Y						Y			
11:00 AM	TO	12:00 PM	116	61												Y			
12:00 PM	TO	01:00 PM	135	98						Y						Y			
01:00 PM	TO	02:00 PM	141	120						Y			Y			Y			
02:00 PM	TO	03:00 PM	150	118						Y						Y			
03:00 PM	TO	04:00 PM	202	129						Y			Y			Y			
04:00 PM	TO	05:00 PM	216	124						Y			Y			Y			
05:00 PM	TO	06:00 PM	222	114						Y						Y			
06:00 PM	TO	07:00 PM	124	43															
07:00 PM	TO	08:00 PM	81	22															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,114	1,196		0	0	**0**	0	9	**0**	0	3	**0**	0	11	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Shirk Street** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **N**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**500**	**150**		**750**	**75**		**400**	**120**		**600**	**60**		**60**	**75**
06:00 AM	TO	07:00 AM	129	66												Y			
07:00 AM	TO	08:00 AM	350	102						Y						Y			
08:00 AM	TO	09:00 AM	242	106						Y						Y			
09:00 AM	TO	10:00 AM	197	91						Y						Y			
10:00 AM	TO	11:00 AM	164	99						Y						Y			
11:00 AM	TO	12:00 PM	181	79						Y						Y			
12:00 PM	TO	01:00 PM	221	122						Y			Y			Y			
01:00 PM	TO	02:00 PM	227	144						Y			Y			Y			
02:00 PM	TO	03:00 PM	228	139						Y			Y			Y			
03:00 PM	TO	04:00 PM	279	150			Y			Y			Y			Y			
04:00 PM	TO	05:00 PM	272	139						Y			Y			Y			
05:00 PM	TO	06:00 PM	279	130						Y			Y			Y			
06:00 PM	TO	07:00 PM	151	50															
07:00 PM	TO	08:00 PM	100	27															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			3,020	1,444		0	1	**0**	0	11	**0**	0	6	**0**	0	12	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	130	1															
07:00 AM	TO	08:00 AM	232	1															
08:00 AM	TO	09:00 AM	189	0															
09:00 AM	TO	10:00 AM	163	0															
10:00 AM	TO	11:00 AM	145	1															
11:00 AM	TO	12:00 PM	148	0															
12:00 PM	TO	01:00 PM	187	0															
01:00 PM	TO	02:00 PM	158	0															
02:00 PM	TO	03:00 PM	203	0															
03:00 PM	TO	04:00 PM	191	0															
04:00 PM	TO	05:00 PM	183	0															
05:00 PM	TO	06:00 PM	179	0															
06:00 PM	TO	07:00 PM	81	0															
07:00 PM	TO	08:00 PM	50	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,239	3		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	141	6															
07:00 AM	TO	08:00 AM	266	16															
08:00 AM	TO	09:00 AM	217	13															
09:00 AM	TO	10:00 AM	193	14															
10:00 AM	TO	11:00 AM	176	15															
11:00 AM	TO	12:00 PM	173	11															
12:00 PM	TO	01:00 PM	221	15															
01:00 PM	TO	02:00 PM	188	14															
02:00 PM	TO	03:00 PM	232	13															
03:00 PM	TO	04:00 PM	221	14															
04:00 PM	TO	05:00 PM	206	11															
05:00 PM	TO	06:00 PM	206	12															
06:00 PM	TO	07:00 PM	85	2															
07:00 PM	TO	08:00 PM	50	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,575	156		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM TO 07:00 AM	132	1															
07:00 AM TO 08:00 AM	235	1															
08:00 AM TO 09:00 AM	192	0															
09:00 AM TO 10:00 AM	165	0															
10:00 AM TO 11:00 AM	147	1															
11:00 AM TO 12:00 PM	150	0															
12:00 PM TO 01:00 PM	188	0															
01:00 PM TO 02:00 PM	159	0															
02:00 PM TO 03:00 PM	205	0															
03:00 PM TO 04:00 PM	193	0															
04:00 PM TO 05:00 PM	184	0															
05:00 PM TO 06:00 PM	180	0															
06:00 PM TO 07:00 PM	82	0															
07:00 PM TO 08:00 PM	51	0															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	2,263	3		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	156	14															
07:00 AM	TO	08:00 AM	286	29															
08:00 AM	TO	09:00 AM	234	23															
09:00 AM	TO	10:00 AM	208	23															
10:00 AM	TO	11:00 AM	190	25															
11:00 AM	TO	12:00 PM	193	23															
12:00 PM	TO	01:00 PM	243	30															
01:00 PM	TO	02:00 PM	207	27															
02:00 PM	TO	03:00 PM	250	25															
03:00 PM	TO	04:00 PM	240	26															
04:00 PM	TO	05:00 PM	224	22															
05:00 PM	TO	06:00 PM	224	25															
06:00 PM	TO	07:00 PM	104	12															
07:00 PM	TO	08:00 PM	66	8															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,825	312		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	145	1															
07:00 AM	TO	08:00 AM	262	1															
08:00 AM	TO	09:00 AM	217	0															
09:00 AM	TO	10:00 AM	183	0															
10:00 AM	TO	11:00 AM	165	1															
11:00 AM	TO	12:00 PM	171	0															
12:00 PM	TO	01:00 PM	215	0															
01:00 PM	TO	02:00 PM	183	0															
02:00 PM	TO	03:00 PM	230	0															
03:00 PM	TO	04:00 PM	219	0															
04:00 PM	TO	05:00 PM	212	0															
05:00 PM	TO	06:00 PM	209	0															
06:00 PM	TO	07:00 PM	93	0															
07:00 PM	TO	08:00 PM	59	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,563	3		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	174	17															
07:00 AM	TO	08:00 AM	327	37															
08:00 AM	TO	09:00 AM	275	32															
09:00 AM	TO	10:00 AM	253	38															
10:00 AM	TO	11:00 AM	234	39															
11:00 AM	TO	12:00 PM	224	30															
12:00 PM	TO	01:00 PM	286	40															
01:00 PM	TO	02:00 PM	254	40															
02:00 PM	TO	03:00 PM	294	35															
03:00 PM	TO	04:00 PM	282	35															
04:00 PM	TO	05:00 PM	258	25															
05:00 PM	TO	06:00 PM	256	26															
06:00 PM	TO	07:00 PM	115	12															
07:00 PM	TO	08:00 PM	74	8															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			3,306	414		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **W Sunnyview Ave/Ferguson Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	758	177		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 AM	TO	08:00 AM	1,433	273		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,290	199		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	979	141		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	983	155		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,130	124		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,333	156		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,207	135		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,256	148		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,369	146		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,457	152		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,444	145		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	641	86		Y			Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 PM	TO	08:00 PM	407	59		Y				Y		Y				Y			
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			15,687	2,096		14	12	**12**	13	14	**13**	14	13	**13**	13	14	**13**	**13**	**12**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **W Sunnyview Ave/Ferguson Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	824	183		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 AM	TO	08:00 AM	1,628	291		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,451	214		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	1,154	157		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	1,163	172		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,276	138		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,529	174		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,383	151		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,427	164		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,545	163		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,594	165		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,599	160		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	662	88		Y			Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 PM	TO	08:00 PM	408	59		Y				Y		Y				Y			
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			17,643	2,279		14	12	**12**	13	14	**13**	14	13	**13**	13	14	**13**	**13**	**12**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **W Sunnyview Ave/Ferguson Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	766	181		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 AM	TO	08:00 AM	1,445	278		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,300	202		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	987	143		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	990	157		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,138	126		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,341	157		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,215	136		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,265	149		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,379	146		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,466	153		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,453	146		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	646	86		Y			Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 PM	TO	08:00 PM	410	59		Y				Y		Y				Y			
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			15,801	2,119		14	12	**12**	13	14	**13**	14	13	**13**	13	14	**13**	**13**	**12**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **W Sunnyview Ave/Ferguson Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	936	202		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 AM	TO	08:00 AM	1,810	323		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,596	239		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	1,290	180		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	1,295	196		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,442	163		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,735	206		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,558	179		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,588	189		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,713	187		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,749	189		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,766	185		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	805	106		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 PM	TO	08:00 PM	520	72		Y				Y		Y			Y	Y	**Y**		
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			19,803	2,616		14	13	**13**	13	14	**13**	14	13	**13**	14	14	**14**	**13**	**12**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **W Sunnyview Ave/Ferguson Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	785	187		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 AM	TO	08:00 AM	1,472	286		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,324	209		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	1,004	148		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	1,007	162		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,158	129		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,361	162		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,234	141		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,286	155		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,402	151		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,489	158		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,474	151		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	657	90		Y			Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 PM	TO	08:00 PM	418	61		Y				Y		Y				Y			
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			16,071	2,190		14	12	**12**	13	14	**13**	14	13	**13**	13	14	**13**	**13**	**12**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **W Sunnyview Ave/Ferguson Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	988	212		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
07:00 AM	TO	08:00 AM	1,934	343		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
08:00 AM	TO	09:00 AM	1,738	261		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
09:00 AM	TO	10:00 AM	1,499	209		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
10:00 AM	TO	11:00 AM	1,495	223		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
11:00 AM	TO	12:00 PM	1,537	177		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
12:00 PM	TO	01:00 PM	1,863	225		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
01:00 PM	TO	02:00 PM	1,737	204		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
02:00 PM	TO	03:00 PM	1,740	212		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
03:00 PM	TO	04:00 PM	1,848	207		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
04:00 PM	TO	05:00 PM	1,814	198		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
05:00 PM	TO	06:00 PM	1,805	192		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	**Y**
06:00 PM	TO	07:00 PM	816	110		Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	Y	Y	**Y**	**Y**	
07:00 PM	TO	08:00 PM	528	74		Y			Y	Y	**Y**	Y			Y	Y	**Y**		
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			21,342	2,847		14	13	**13**	14	14	**14**	14	13	**13**	14	14	**14**	**13**	**12**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						SATISFIED			**SATISFIED**			**SATISFIED**						**SATISFIED**	**SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Ferguson Ave** EB WB # OF APPROACH LANES: **1**

MINOR STREET: **N Roeben St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	220	25															
07:00 AM	TO	08:00 AM	360	55		Y				Y		Y				Y			
08:00 AM	TO	09:00 AM	280	49								Y				Y			
09:00 AM	TO	10:00 AM	264	36															
10:00 AM	TO	11:00 AM	250	34															
11:00 AM	TO	12:00 PM	332	48								Y				Y			
12:00 PM	TO	01:00 PM	369	63		Y				Y		Y				Y			
01:00 PM	TO	02:00 PM	371	42		Y						Y				Y			
02:00 PM	TO	03:00 PM	311	58						Y		Y				Y			
03:00 PM	TO	04:00 PM	376	71		Y				Y		Y				Y			
04:00 PM	TO	05:00 PM	430	69		Y				Y		Y			Y	Y	**Y**		
05:00 PM	TO	06:00 PM	448	70		Y				Y		Y			Y	Y	**Y**		
06:00 PM	TO	07:00 PM	298	65						Y		Y				Y			
07:00 PM	TO	08:00 PM	209	40															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			4,518	725		6	0	**0**	0	7	**0**	10	0	**0**	2	10	**2**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Ferguson Ave** EB WB # OF APPROACH LANES: **1**

MINOR STREET: **N Roeben St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	231	26															
07:00 AM	TO	08:00 AM	394	58		Y				Y		Y				Y			
08:00 AM	TO	09:00 AM	308	52								Y				Y			
09:00 AM	TO	10:00 AM	294	39								Y							
10:00 AM	TO	11:00 AM	281	37								Y							
11:00 AM	TO	12:00 PM	357	50		Y						Y				Y			
12:00 PM	TO	01:00 PM	403	66		Y				Y		Y				Y			
01:00 PM	TO	02:00 PM	401	45		Y						Y				Y			
02:00 PM	TO	03:00 PM	340	61						Y		Y				Y			
03:00 PM	TO	04:00 PM	406	74		Y				Y		Y				Y			
04:00 PM	TO	05:00 PM	453	71		Y				Y		Y			Y	Y	**Y**		
05:00 PM	TO	06:00 PM	475	72		Y				Y		Y			Y	Y	**Y**		
06:00 PM	TO	07:00 PM	302	65						Y		Y				Y			
07:00 PM	TO	08:00 PM	209	40															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			4,854	756		7	0	**0**	0	7	**0**	12	0	**0**	2	10	**2**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Ferguson Ave** EB WB # OF APPROACH LANES: **1**

MINOR STREET: **N Roeben St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	221	25															
07:00 AM	TO	08:00 AM	343	56						Y		Y				Y			
08:00 AM	TO	09:00 AM	258	50												Y			
09:00 AM	TO	10:00 AM	253	37															
10:00 AM	TO	11:00 AM	235	35															
11:00 AM	TO	12:00 PM	320	49								Y				Y			
12:00 PM	TO	01:00 PM	348	64						Y		Y				Y			
01:00 PM	TO	02:00 PM	360	43		Y						Y				Y			
02:00 PM	TO	03:00 PM	293	59						Y		Y				Y			
03:00 PM	TO	04:00 PM	360	72		Y				Y		Y				Y			
04:00 PM	TO	05:00 PM	413	70		Y				Y		Y				Y			
05:00 PM	TO	06:00 PM	431	71		Y				Y		Y			Y	Y	**Y**		
06:00 PM	TO	07:00 PM	305	66						Y		Y				Y			
07:00 PM	TO	08:00 PM	214	41															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			4,354	738		4	0	**0**	0	7	**0**	9	0	**0**	1	10	**1**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Ferguson Ave** EB WB # OF APPROACH LANES: **1**

MINOR STREET: **N Roeben St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	261	28															
07:00 AM	TO	08:00 AM	429	62		Y				Y		Y			Y	Y	**Y**		
08:00 AM	TO	09:00 AM	328	55						Y		Y				Y			
09:00 AM	TO	10:00 AM	324	42								Y				Y			
10:00 AM	TO	11:00 AM	306	40								Y							
11:00 AM	TO	12:00 PM	391	54		Y				Y		Y				Y			
12:00 PM	TO	01:00 PM	441	70		Y				Y		Y			Y	Y	**Y**		
01:00 PM	TO	02:00 PM	440	48		Y						Y			Y	Y	**Y**		
02:00 PM	TO	03:00 PM	369	64		Y				Y		Y				Y			
03:00 PM	TO	04:00 PM	438	77		Y				Y		Y			Y	Y	**Y**		
04:00 PM	TO	05:00 PM	480	74		Y				Y		Y			Y	Y	**Y**		
05:00 PM	TO	06:00 PM	505	76		Y				Y		Y			Y	Y	**Y**		
06:00 PM	TO	07:00 PM	342	68						Y		Y				Y			
07:00 PM	TO	08:00 PM	240	43												Y			
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			5,294	801		8	0	**0**	0	9	**0**	12	0	**0**	6	12	**6**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Ferguson Ave** EB WB # OF APPROACH LANES: **1**

MINOR STREET: **N Roeben St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES				**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM TO 07:00 AM	229	26															
07:00 AM TO 08:00 AM	355	58		Y				Y		Y				Y			
08:00 AM TO 09:00 AM	267	51												Y			
09:00 AM TO 10:00 AM	262	38															
10:00 AM TO 11:00 AM	243	36															
11:00 AM TO 12:00 PM	331	50								Y				Y			
12:00 PM TO 01:00 PM	362	67		Y				Y		Y				Y			
01:00 PM TO 02:00 PM	375	45		Y						Y				Y			
02:00 PM TO 03:00 PM	304	62						Y		Y				Y			
03:00 PM TO 04:00 PM	375	75		Y				Y		Y				Y			
04:00 PM TO 05:00 PM	430	73		Y				Y		Y			Y	Y	**Y**		
05:00 PM TO 06:00 PM	448	74		Y				Y		Y			Y	Y	**Y**		
06:00 PM TO 07:00 PM	317	69						Y		Y				Y			
07:00 PM TO 08:00 PM	223	42												Y			
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	4,521	766		6	0	**0**	0	7	**0**	9	0	**0**	2	11	**2**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **W Ferguson Ave** EB WB # OF APPROACH LANES: **1**

MINOR STREET: **N Roeben St** NB SB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	277	29															
07:00 AM	TO	08:00 AM	463	65		Y				Y		Y			Y	Y	**Y**		
08:00 AM	TO	09:00 AM	364	57		Y				Y		Y				Y			
09:00 AM	TO	10:00 AM	378	46		Y						Y				Y			
10:00 AM	TO	11:00 AM	358	44		Y						Y				Y			
11:00 AM	TO	12:00 PM	420	56		Y				Y		Y			Y	Y	**Y**		
12:00 PM	TO	01:00 PM	479	75		Y				Y		Y			Y	Y	**Y**		
01:00 PM	TO	02:00 PM	492	53		Y				Y		Y			Y	Y	**Y**		
02:00 PM	TO	03:00 PM	410	69		Y				Y		Y				Y			
03:00 PM	TO	04:00 PM	480	82		Y				Y		Y			Y	Y	**Y**		
04:00 PM	TO	05:00 PM	506	78		Y				Y		Y			Y	Y	**Y**		
05:00 PM	TO	06:00 PM	526	79		Y			Y	Y	**Y**	Y			Y	Y	**Y**		
06:00 PM	TO	07:00 PM	354	71		Y				Y		Y				Y			
07:00 PM	TO	08:00 PM	249	44												Y			
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			5,756	848		12	0	**0**	1	10	**1**	12	0	**0**	7	13	**7**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Akers St** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM TO 07:00 AM	140	31															
07:00 AM TO 08:00 AM	206	50												Y			
08:00 AM TO 09:00 AM	176	38															
09:00 AM TO 10:00 AM	158	37															
10:00 AM TO 11:00 AM	150	42												Y			
11:00 AM TO 12:00 PM	167	36															
12:00 PM TO 01:00 PM	163	43												Y			
01:00 PM TO 02:00 PM	158	44												Y			
02:00 PM TO 03:00 PM	205	65						Y						Y			
03:00 PM TO 04:00 PM	185	62						Y						Y			
04:00 PM TO 05:00 PM	208	64						Y						Y			
05:00 PM TO 06:00 PM	203	83						Y						Y			
06:00 PM TO 07:00 PM	119	32															
07:00 PM TO 08:00 PM	84	22															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	2,322	649		0	0	**0**	0	4	**0**	0	0	**0**	0	8	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Akers St** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	149	32															
07:00 AM	TO	08:00 AM	233	53						Y						Y			
08:00 AM	TO	09:00 AM	199	41															
09:00 AM	TO	10:00 AM	183	40															
10:00 AM	TO	11:00 AM	175	45												Y			
11:00 AM	TO	12:00 PM	187	38															
12:00 PM	TO	01:00 PM	191	46												Y			
01:00 PM	TO	02:00 PM	183	47												Y			
02:00 PM	TO	03:00 PM	229	68						Y						Y			
03:00 PM	TO	04:00 PM	210	65						Y						Y			
04:00 PM	TO	05:00 PM	227	66						Y						Y			
05:00 PM	TO	06:00 PM	225	85						Y			Y			Y			
06:00 PM	TO	07:00 PM	122	32															
07:00 PM	TO	08:00 PM	84	22															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,597	680		0	0	**0**	0	5	**0**	0	1	**0**	0	8	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Akers St** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	141	31															
07:00 AM	TO	08:00 AM	207	50												Y			
08:00 AM	TO	09:00 AM	177	38															
09:00 AM	TO	10:00 AM	159	37															
10:00 AM	TO	11:00 AM	151	42												Y			
11:00 AM	TO	12:00 PM	168	36															
12:00 PM	TO	01:00 PM	165	43												Y			
01:00 PM	TO	02:00 PM	160	45												Y			
02:00 PM	TO	03:00 PM	208	66						Y						Y			
03:00 PM	TO	04:00 PM	188	63						Y						Y			
04:00 PM	TO	05:00 PM	211	66						Y						Y			
05:00 PM	TO	06:00 PM	205	85						Y			Y			Y			
06:00 PM	TO	07:00 PM	121	32															
07:00 PM	TO	08:00 PM	85	23															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,346	657		0	0	**0**	0	4	**0**	0	1	**0**	0	8	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Akers St** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	176	34															
07:00 AM	TO	08:00 AM	281	56						Y		Y				Y			
08:00 AM	TO	09:00 AM	238	43												Y			
09:00 AM	TO	10:00 AM	221	42												Y			
10:00 AM	TO	11:00 AM	213	47												Y			
11:00 AM	TO	12:00 PM	230	41															
12:00 PM	TO	01:00 PM	245	49												Y			
01:00 PM	TO	02:00 PM	229	50												Y			
02:00 PM	TO	03:00 PM	273	71						Y						Y			
03:00 PM	TO	04:00 PM	256	68						Y						Y			
04:00 PM	TO	05:00 PM	269	70						Y						Y			
05:00 PM	TO	06:00 PM	269	90						Y			Y			Y			
06:00 PM	TO	07:00 PM	153	34															
07:00 PM	TO	08:00 PM	107	25															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			3,160	720		0	0	**0**	0	5	**0**	1	1	**0**	0	10	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Akers St** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	153	35															
07:00 AM	TO	08:00 AM	233	60						Y						Y			
08:00 AM	TO	09:00 AM	201	45												Y			
09:00 AM	TO	10:00 AM	178	43												Y			
10:00 AM	TO	11:00 AM	171	49												Y			
11:00 AM	TO	12:00 PM	189	43												Y			
12:00 PM	TO	01:00 PM	190	52												Y			
01:00 PM	TO	02:00 PM	181	53						Y						Y			
02:00 PM	TO	03:00 PM	232	75						Y						Y			
03:00 PM	TO	04:00 PM	213	72						Y						Y			
04:00 PM	TO	05:00 PM	238	75						Y						Y			
05:00 PM	TO	06:00 PM	234	95						Y			Y			Y			
06:00 PM	TO	07:00 PM	132	36															
07:00 PM	TO	08:00 PM	93	25															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,638	758		0	0	**0**	0	6	**0**	0	1	**0**	0	11	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **Avenue 320** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **N Akers St** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	195	38															
07:00 AM	TO	08:00 AM	327	67						Y		Y				Y			
08:00 AM	TO	09:00 AM	285	51								Y				Y			
09:00 AM	TO	10:00 AM	279	51												Y			
10:00 AM	TO	11:00 AM	271	57						Y						Y			
11:00 AM	TO	12:00 PM	266	49												Y			
12:00 PM	TO	01:00 PM	292	60						Y		Y				Y			
01:00 PM	TO	02:00 PM	283	61						Y		Y				Y			
02:00 PM	TO	03:00 PM	324	82						Y		Y				Y			
03:00 PM	TO	04:00 PM	304	79						Y		Y				Y			
04:00 PM	TO	05:00 PM	304	80						Y		Y				Y			
05:00 PM	TO	06:00 PM	302	100						Y		Y	Y	**Y**		Y			
06:00 PM	TO	07:00 PM	164	38															
07:00 PM	TO	08:00 PM	115	27															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			3,711	840		0	0	**0**	0	8	**0**	8	1	**1**	0	11	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Akers St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Future Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	71	0															
07:00 AM	TO	08:00 AM	139	0															
08:00 AM	TO	09:00 AM	109	0															
09:00 AM	TO	10:00 AM	102	0															
10:00 AM	TO	11:00 AM	110	0															
11:00 AM	TO	12:00 PM	98	0															
12:00 PM	TO	01:00 PM	118	1															
01:00 PM	TO	02:00 PM	117	0															
02:00 PM	TO	03:00 PM	153	0															
03:00 PM	TO	04:00 PM	162	1															
04:00 PM	TO	05:00 PM	174	0															
05:00 PM	TO	06:00 PM	179	1															
06:00 PM	TO	07:00 PM	84	0															
07:00 PM	TO	08:00 PM	56	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			1,672	3		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Akers St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Future Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2025 Plus Phase 1**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM TO 07:00 AM	74	3															
07:00 AM TO 08:00 AM	148	9															
08:00 AM TO 09:00 AM	117	8															
09:00 AM TO 10:00 AM	110	8															
10:00 AM TO 11:00 AM	118	8															
11:00 AM TO 12:00 PM	105	7															
12:00 PM TO 01:00 PM	127	10															
01:00 PM TO 02:00 PM	125	8															
02:00 PM TO 03:00 PM	161	8															
03:00 PM TO 04:00 PM	170	9															
04:00 PM TO 05:00 PM	180	6															
05:00 PM TO 06:00 PM	186	8															
06:00 PM TO 07:00 PM	85	1															
07:00 PM TO 08:00 PM	56	0															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	1,762	93		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Akers St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Future Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM TO 07:00 AM	79	0															
07:00 AM TO 08:00 AM	139	7															
08:00 AM TO 09:00 AM	97	0															
09:00 AM TO 10:00 AM	105	0															
10:00 AM TO 11:00 AM	113	0															
11:00 AM TO 12:00 PM	84	0															
12:00 PM TO 01:00 PM	89	8															
01:00 PM TO 02:00 PM	101	0															
02:00 PM TO 03:00 PM	156	0															
03:00 PM TO 04:00 PM	161	8															
04:00 PM TO 05:00 PM	171	0															
05:00 PM TO 06:00 PM	175	8															
06:00 PM TO 07:00 PM	89	0															
07:00 PM TO 08:00 PM	62	0															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	1,622	31		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Akers St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Future Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2026 Plus Phase 2**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM TO 07:00 AM	87	13															
07:00 AM TO 08:00 AM	156	35															
08:00 AM TO 09:00 AM	111	23															
09:00 AM TO 10:00 AM	119	23															
10:00 AM TO 11:00 AM	127	24															
11:00 AM TO 12:00 PM	98	23															
12:00 PM TO 01:00 PM	107	38															
01:00 PM TO 02:00 PM	117	27															
02:00 PM TO 03:00 PM	171	25															
03:00 PM TO 04:00 PM	177	34															
04:00 PM TO 05:00 PM	184	22															
05:00 PM TO 06:00 PM	190	33															
06:00 PM TO 07:00 PM	96	12															
07:00 PM TO 08:00 PM	67	8															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	1,808	340		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Akers St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Future Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	89	0															
07:00 AM	TO	08:00 AM	154	12															
08:00 AM	TO	09:00 AM	107	0															
09:00 AM	TO	10:00 AM	116	0															
10:00 AM	TO	11:00 AM	126	0															
11:00 AM	TO	12:00 PM	94	0															
12:00 PM	TO	01:00 PM	100	12															
01:00 PM	TO	02:00 PM	113	0															
02:00 PM	TO	03:00 PM	174	0															
03:00 PM	TO	04:00 PM	180	12															
04:00 PM	TO	05:00 PM	191	0															
05:00 PM	TO	06:00 PM	196	12															
06:00 PM	TO	07:00 PM	100	0															
07:00 PM	TO	08:00 PM	69	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			1,811	48		0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Akers St** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **Future Shannon Parkway** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	99	16															
07:00 AM	TO	08:00 AM	176	48												Y			
08:00 AM	TO	09:00 AM	126	32															
09:00 AM	TO	10:00 AM	139	38															
10:00 AM	TO	11:00 AM	149	38															
11:00 AM	TO	12:00 PM	112	30															
12:00 PM	TO	01:00 PM	124	52												Y			
01:00 PM	TO	02:00 PM	137	40															
02:00 PM	TO	03:00 PM	195	35															
03:00 PM	TO	04:00 PM	201	47												Y			
04:00 PM	TO	05:00 PM	206	25															
05:00 PM	TO	06:00 PM	212	38															
06:00 PM	TO	07:00 PM	107	12															
07:00 PM	TO	08:00 PM	74	8															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			2,059	459		0	0	**0**	0	0	**0**	0	0	**0**	0	3	**0**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/04/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **1**

MINOR STREET: **D18/Sedona Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

	MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
				MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES →				**350**	**105**		**525**	**53**		**280**	**84**		**420**	**42**		**60**	**75**
06:00 AM TO 07:00 AM	266	0															
07:00 AM TO 08:00 AM	552	0		Y			Y			Y			Y				
08:00 AM TO 09:00 AM	524	0		Y						Y			Y				
09:00 AM TO 10:00 AM	404	0		Y						Y							
10:00 AM TO 11:00 AM	396	0		Y						Y							
11:00 AM TO 12:00 PM	432	0		Y						Y			Y				
12:00 PM TO 01:00 PM	521	0		Y						Y			Y				
01:00 PM TO 02:00 PM	440	0		Y						Y			Y				
02:00 PM TO 03:00 PM	491	0		Y						Y			Y				
03:00 PM TO 04:00 PM	503	0		Y						Y			Y				
04:00 PM TO 05:00 PM	528	0		Y			Y			Y			Y				
05:00 PM TO 06:00 PM	535	0		Y			Y			Y			Y				
06:00 PM TO 07:00 PM	218	0															
07:00 PM TO 08:00 PM	139	0															
08:00 PM TO 09:00 PM																	
09:00 PM TO 10:00 PM																	
	5,949	0		11	0	**0**	3	0	**0**	11	0	**0**	9	0	**0**	**0**	**0**
				8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
				NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/06/23
Kimley-Horn and Associates

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2014 MUTCD)

MAJOR STREET: **N Shirk Street** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **D18/Sedona Ave** EB WB # OF APPROACH LANES: **1**

CITY, STATE: **Visalia, California**

COMMENTS: **Near Term 2028 Plus Full Build Out**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N) **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N) **Y**

			MAJOR ST TWO-WAY TRAFFIC	MINOR ST TRAFFIC HEAVY LEG	Ped Count CROSSING MAJOR ST	WARRANT 1 - Condition A, Part 1			WARRANT 1 - Condition B, Part 1			WARRANT 1 - Condition A, Part 2			WARRANT 1 - Condition B, Part 2			WARRANT 2 Four-Hour	WARRANT 3 Peak Hour
						MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET	MAIN LINE	SIDE STREET	BOTH MET		
THRESHOLD VALUES						**420**	**105**		**630**	**53**		**336**	**84**		**504**	**42**		**60**	**75**
06:00 AM	TO	07:00 AM	441	58		Y				Y		Y				Y			
07:00 AM	TO	08:00 AM	731	60		Y			Y	Y	**Y**	Y			Y	Y	**Y**		
08:00 AM	TO	09:00 AM	735	70		Y			Y	Y	**Y**	Y			Y	Y	**Y**		
09:00 AM	TO	10:00 AM	620	72		Y				Y		Y			Y	Y	**Y**		
10:00 AM	TO	11:00 AM	610	71		Y				Y		Y			Y	Y	**Y**		
11:00 AM	TO	12:00 PM	571	46		Y						Y			Y	Y	**Y**		
12:00 PM	TO	01:00 PM	615	31		Y						Y			Y				
01:00 PM	TO	02:00 PM	440	0		Y						Y							
02:00 PM	TO	03:00 PM	491	0		Y						Y							
03:00 PM	TO	04:00 PM	503	0		Y						Y							
04:00 PM	TO	05:00 PM	528	0		Y						Y			Y				
05:00 PM	TO	06:00 PM	535	0		Y						Y			Y				
06:00 PM	TO	07:00 PM	218	0															
07:00 PM	TO	08:00 PM	139	0															
08:00 PM	TO	09:00 PM																	
09:00 PM	TO	10:00 PM																	
			7,177	408		12	0	**0**	2	5	**2**	12	0	**0**	8	6	**5**	**0**	**0**
						8 HOURS NEEDED			8 HOURS NEEDED			8 HOURS NEEDED for both Condition A & B						4 HRS NEEDED	1 HR NEEDED
						NOT SATISFIED			**NOT SATISFIED**			**NOT SATISFIED**						**NOT SATISFIED**	**NOT SATISFIED**

10/06/23
Kimley-Horn and Associates

J – SWITRS Collision Report

OBJECTID	CASE_ID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	REPORTING_DISTRICT	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_C	BEAT_TYP	CHP_BEAT_TYPE	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED
1	8659357	2018	20180712	5407	20180515	947		480	2	5	5	5407	0	0	0	0	11	W GOSHEN	N AKERS	0		Y	A	-	N	Y	4	0
2	8728592	2018	20181109	5407	20180908	1523		480	6	5	5	5407	0	0	0	0		W GOSHEN AV	N AKERS ST	0		Y	A	-	N	Y	4	0
3	8750196	2018	20181210	5407	20181026	1219		480	5	5	5	5407	0	0	0	0	11	GOSHEN AV	AKERS ST	0		Y	A	-	N	Y	4	0
4	8853709	2019	20190517	5407	20190401	1258		480	1	5	5	5407	0	0	0	0	11	N AKERS ST	GOSHEN AV	100	N	N	A	-	N	N	0	0
5	8930728	2019	20191001	5407	20190812	850		480	1	5	5	5407	0	0	0	0		GOSHEN AV	CHINOWTH	1170	W	N	A	-	N	Y	0	0
6	9043256	2020	20200224	5407	20200108	1515		480	3	5	5	5407	0	0	0	0		W GOSHEN AV	SHIRK	0	W	N	B	-	N	Y	0	0
7	9080403	2020	20200612	5407	20200213	705		480	4	5	5	5407	0	0	0	0		N AKERS ST	GOSHEN	0		Y	A	-	N	Y	0	0
8	9080893	2020	20200622	5407	20200302	1134		480	1	5	5	5407	0	0	0	0		GOSHEN	AKERS	0		Y	A	-	N	Y	4	0
9	9081807	2020	20200618	5407	20200310	1921		480	2	5	5	5407	0	0	0	0	11	N AKERS ST	W GOSHEN AV	0		Y	C	-	N	Y	0	0
10	9105474	2020	20200807	5407	20200413	1745		480	1	5	5	5407	0	0	0	0		WEST GOSHEN AV	NORTH MAE CARDEN ST	429	E	N	A	-	N	Y	0	0
11	9157153	2020	20201120	5407	20200902	1819		480	3	5	5	5407	0	0	0	0		W GOSHEN AV	N AKERS ST	0		Y	A	-	N	Y	0	0
12	8682448	2018	20180918	5407	20180726	1346		480	4	5	5	5407	0	0	0	0	11	W GOSHEN AV	N SHIRK RD	1550	W	N	A	-	N	Y	0	0
13	8854402	2019	20190524	5407	20190410	830		480	3	5	5	5407	0	0	0	0	11	W GOSHEN AV	SHIRK	0		Y	A	-	N	N	4	0
14	8857574	2019	20190523	5407	20190423	1123		480	2	5	5	5407	0	0	0	0	11	W GOSHEN AV	N CLANCY	36	W	N	A	-	N	Y	3	0
15	8873900	2019	20190617	5407	20190510	1210		480	5	5	5	5407	0	0	0	0		GOSHEN AV	SHIRK ST	0		Y	B	-	N	Y	4	0
16	8816529	2019	20190312	5407	20190125	908		480	5	5	5	5407	0	0	0	0		GOSHEN AV	KELSEY	0		Y	E	-	N	Y	0	0
17	8816549	2019	20190312	5407	20190122	1136		480	2	5	5	5407	0	0	0	0		N KELSEY ST	HURLEY	527	N	N	A	-	N	Y	0	0
18	8949863	2019	20191015	5407	20190726	853		480	5	5	5	5407	0	0	0	0	11	GOSHEN AV	KELSEY ST	96	E	N	A	-	N	Y	3	0
19	9005285	2019	20200203	5407	20191210	1453		480	2	5	5	5407	0	0	0	0	11	W GOSHEN AV	SHIRK RD	1596	W	N	A	-	N	Y	0	0
20	9173693	2020	20210119	5407	20201105	950		480	4	5	5	5407	0	0	0	0		ATWOOD ST	GROVE	0		Y	A	-	N	Y	0	0
21	8584994	2018	20180409	5407	20180217	2143		480	6	5	5	5407	0	0	0	0		NORTH PLAZA	GOSHEN	15	S	N	A	-	N	N	4	0
22	8750180	2018	20190115	5407	20181102	1149		480	5	5	5	5407	0	0	0	0	11	W GOSHEN AV	PLAZA DR	40	W	N	A	-	N	N	0	0
23	8816316	2019	20190307	5407	20190123	2221		480	3	5	5	5407	0	0	0	0	11	PLAZA	GOSHEN	0		Y	A	-	N	Y	4	0
24	8897651	2019	20190726	5407	20190626	1733	11893	480	3	5	5	5407	0	0	0	0		W GOSHEN	N CAMP	0		Y	A	-	N	Y	3	0
25	9016253	2020	20200224	5407	20200103	122		480	5	5	5	5407	0	0	0	0		W GOSHEN AV	N PLAZA DR	0		Y	A	-	N	Y	3	0
26	9068767	2020	20200731	5407	20200421	644		480	2	5	5	5407	0	0	0	0		N PLAZA DR	GOSHEN	237	N	N	A	-	N	Y	0	0
27	9080796	2020	20200622	5407	20200317	426		480	2	5	5	5407	0	0	0	0	11	N PLAZA DR	GOSHEN AV	400	N	N	A	-	N	Y	3	0
28	9114573	2020	20200722	5407	20200327	1240		480	5	5	5	5407	0	0	0	0	11	N PLAZA DR	W GOSHEN AV	75	N	N	A	-	N	Y	0	0
29	9173745	2020	20201211	5407	20201015	617		480	4	5	5	5407	0	0	0	0		W GOSHEN AV	N PLAZA DR	345	W	N	A	-	N	Y	3	0
30	9179421	2020	20201112	5407	20200920	1943		480	7	5	5	5407	0	0	0	0	11	W GOSHEN AV	N PLAZA DR	0		Y	A	-	N	Y	3	0
31	8609826	2018	20180508	5407	20180328	1625		480	3	5	5	5407	0	0	0	0	11	W DOE AV	SHIRK ST	594	W	N	B	-	N	Y	3	0
32	8778742	2018	20190207	5407	20181222	2254		480	6	5	5	5407	0	0	0	0	11	W FERGUSON AV	N AKERS ST	52		N	A	-	N	Y	0	0
33	9114597	2020	20200917	5407	20200614	2356		480	7	5	5	5407	0	0	0	0		N AKERS ST	W FERGUSON	0		Y	A	-	N	Y	0	0
34	9178790	2020	20210105	5407	20201014	1013		480	3	5	5	5407	0	0	0	0	11	SUNNYVIEW AV	CLANCY ST	60	E	N	A	-	N	N	0	0
35	8659716	2018	20180718	5407	20180519	934		480	6	5	5	5407	0	0	0	0	11	N ROEBEN ST	W FERGUSON	30	S	N	A	-	N	Y	4	0
36	8659740	2018	20180718	5407	20180523	1653		480	3	5	5	5407	0	0	0	0		W FERGUSON AV	N ROEBEN ST	0		Y	A	-	N	N	4	0
37	8931486	2019	20190917	5407	20190802	1739		480	5	5	5	5407	0	0	0	0		FERGUSON	ROEBEN	0		Y	A	-	N	Y	4	0
38	9049053	2020	20200306	5407	20200122	1437		480	3	5	5	5407	0	0	0	0	11	ROAD 80	RIGGIN AV	1601	N	N	A	-	N	N	4	0
39	8816292	2019	20190311	5407	20190129	605		480	2	5	5	5407	0	0	0	0	11	N PLAZA DR	RIGGIN	175	S	N	E	-	N	Y	0	0
40	8834085	2019	20190417	5407	20190311	553		480	1	5	5	5407	0	0	0	0		N PLAZA DR	W RIGGIN AV	0		Y	A	-	N	Y	4	0
41	9005102	2019	20200208	5407	20191209	1400		480	1	5	5	5407	0	0	0	0		RIGGIN AV	PLAZA DR	0		Y	B	-	N	Y	4	0
42	9120076	2020	20200804	5407	20200423	502		480	4	5	5	5407	0	0	0	0	11	W RIGGIN AV	N PLAZA DR	910	E	N	A	-	N	Y	0	0
43	9201213	2020	20210224	5407	20201219	1851		480	6	5	5	5407	0	0	0	0		N PLAZA DR	RIGGIN AV	16	N	N	A	-	N	N	0	0
44	9212611	2020	20210126	5407	20201201	59		480	2	5	5	5407	0	0	0	0		N PLAZA DR	RIGGIN AVE	69	N	N	A	-	N	Y	3	0
45	8898822	2019	20190719	5407	20190522	756		480	3	5	5	5407	0	0	0	0	11	W RIGGIN AV	N KELSEY ST	0		Y	B	-	N	Y	0	0
46	9227142	2020	20210315	5407	20201208	539		480	2	5	5	5407	0	0	0	0		RIGGIN AVE	KELSEY ST	0		Y	A	-	N	Y	3	0
47	91135362	2019	20191204	9480	20191127	1713	17778		3	2	9	5400	0	3	5	2	2	RIGGIN AVENUE	SHIRK ROAD	528	W	N	B	C	N	N	2	0
48	90990099	2019	20190516	9480	20190504	2020	18861		6	2	9	5400	0	3	5	2	2	RIGGIN AVENUE (AVENUE 312)	SHIRK STREET (ROAD 92)	1462	W	N	A	-	N	Y	0	0
49	90706038	2018	20180416	9480	20180408	15	18521		7	3	9	5400	0	3	5	2	2	RIGGIN AVENUE	SHIRK ROAD	323	W	N	A	-	N	Y	3	0
50	91145530	2019	20191217	9480	20191204	1610	19186		3	2	9	5400	0	3	5	2	2	RIGGIN AVE	SHIRK RD	2112	W	N	B	-	N	N	0	0
51	8773078	2018	20190110	5407	20181129	1833		480	4	5	5	5407	0	0	0	0		N SHIRK ST	W RIGGIN AV	0		Y	C	-	N	Y	4	0
52	8857570	2019	20190524	5407	20190422	2145	11894	480	1	5	5	5407	0	0	0	0	11	W RIGGIN AV	SHIRK	2	W	N	A	-	N	N	4	0
53	9005090	2019	20200204	5407	20191203	831	12091	480	2	5	5	5407	0	0	0	0	11	W RIGGIN AV	AMERICAN ST	0		Y	E	-	N	Y	2	0
54	9068998	2020	20200724	5407	20200426	558		480	7	5	5	5407	0	0	0	0		W RIGGIN AVE	N SHIRK ST	535	W	N	A	-	N	Y	0	0
55	8796139	2018	20190221	5407	20180614	2030	15282		4	5	5	5407	0	0	0	0		RIGGIN AV	AKERS ST	80	W	N	A	-	N	Y	0	0
56	8660044	2018	20180809	5407	20180601	57		480	5	5	5	5407	0	0	0	0		N AKERS	FERGUSON	567	N	N	A	-	N	Y	0	0
57	8929239	2019	20190912	5407	20190723	654		480	2	5	5	5407	0	0	0	0		RIGGIN AV	SHIRK RD	339	E	N	A	-	N	Y	0	0
58	9219336	2020	20210222	5407	20201221	1722		480	1	5	5	5407	0	0	0	0		RIGGIN AV	AKERS ST	488	W	N	E	-	N	Y	0	0
59	91061210	2019	20190828	9480	20190803	2120	18809		6	2	9	5400	0	3	5	2	2	RIGGIN AVENUE	ROAD 92	3438	W	N	A	-	Y	Y	0	0
60	91223516	2020	20200409	9480	20200404	2339	16723		6	3	9	5400	0	3	5	2	2	ROAD 92	AVENUE 312	1920	N	N	A	-	N	N	0	0
61	90876457	2018	20181205	9480	20181127	715	15047		2	1	9	5400	0	3	5	2	2	AVENUE 320	ROAD 92	0		Y	E	-	N	Y	4	0
62	91162274	2020	20200109	9480	20200103	1307	16723		5	1	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	Y	0	0
63	91185467	2020	20200212	9480	20200210	1501	19932		1	2	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	N	0	0
64	91169483	2020	20200121	9480	20200114	1635	19932		2	2	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	B	-	N	Y	4	0
65	91355789	2020	20201130	9480	20201123	1417	19846		1	2	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	Y	0	0
66	91356144	2020	20201201	9480	20201123	1543	19846		1	2	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	N	0	0
67	91356154	2020	20201201	9480	20201123	1745	19846		1	2	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	Y	0	0
68	90965344	2019	20190410	9480	20190404	2035	17778		4	2	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	Y	3	0
69	91005574	2019	20190607	9480	20190530	450	16145		4	3	9	5400	0	3	5	2	2	AVENUE 320	ROAD 92	0		Y	A	-	N	Y	4	0
70	90841827	2018	20181022	9480	20181020	1325	15282		6	1	9	5400	0	3	5	2	2	AVENUE 320	ROAD 92	0		Y	A	-	N	Y	4	0
71	90946930	2019	20190315	9480	20190308	1715	17778		5	2	9	5400	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	Y	3	0
72	91356424	2020	20201201	9480	20201125	1240	13914		3	1	5	5407	0	3	5	2	2	ROAD 92	AVENUE 320	0		Y	A	-	N	Y	3	0
73	90889880	2018	20181226	9480	20181130	1535	19697		5	2	9	5400	1	3	5	2	2	AVENUE 320	ROAD 100	0		Y	A	-	N	N	0	0
74	90719958	2018	20180514	9480	20180502	520	17311		3	3	9	5400	0	3	5	2	2	AVENUE 320	ROAD 100	0		Y	A	-	N	Y	1	1

OBJECTID	CASE_ID	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING	CONTROL_DEVICE	CHP_ROAD_TYPE	PEDESTRIAN_ACCIDENT	BICYCLE_ACCIDENT
1	8659357	4	3	A	-	12	21453	A	N	D	C	A	A	H	-	A	A	0		
2	8728592	2	2	A	-	12	21453	A	N	B	C	A	A	H	-	A	A	0		
3	8750196	1	2	A	-	9	21453	C	N	D	C	A	A	H	-	A	A	0		
4	8853709	0	2	C	-	18			N	E	J	A	A	H	-	A	A	0		
5	8930728	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	D	0		
6	9043256	0	2	A	-	1	23152	A	N	C	C	A	B	H	-	A	A	0		
7	9080403	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0		
8	9080893	1	2	A	-	1	23152	F	N	C	C	A	A	H	-	A	A	0		
9	9081807	0	2	A	-	4	21703		N	C	C	A	B	H	-	C	A	0		
10	9105474	0	1	A	-	5	21650		N	A	I	A	A	H	-	A	D	0		
11	9157153	0	2	A	-	1	23152	A	N	D	A	A	A	H	-	B	A	0		
12	8682448	0	1	A	-	5	21650		M	A	I	A	A	H	-	C	A	0		
13	8854402	1	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0		
14	8857574	1	2	A	-	3	22350		N	C	C	A	A	A	-	A	A	0		
15	8873900	2	2	A	-	12	21453	A	N	D	C	A	A	H	-	A	A	0		
16	8816529	0	2	A	-	12	21453	A	N	A	C	A	A	H	-	A	A	0		
17	8816549	0	1	A	-	5	21650		N	E	I	A	A	H	-	A	D	0		
18	8949863	1	2	A	-	1	23152	F	N	C	C	A	A	H	-	A	A	0		
19	9005285	0	2	B	-	22			N	C	C	A	A	H	-	A	A	0		
20	9173693	0	1	A	-	5	21650		N	E	C	A	A	H	-	A	A	0		
21	8584994	1	2	A	-	3	22350		M	C	C	A	A	H	-	C	A	0		
22	8750180	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0		
23	8816316	1	2	A	-	9	21453	C	F	D	C	A	A	H	-	C	A	0		
24	8897651	2	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0		
25	9016253	1	2	A	-	12	21453	A	N	D	C	A	A	H	-	C	A	0		
26	9068767	0	1	A	-	5	21650		M	E	I	A	A	H	-	A	A	0		
27	9080796	1	2	A	-	3	22350		N	C	C	A	A	H	-	C	D	0		
28	9114573	0	3	A	-	7	21658	A	N	B	C	A	A	H	-	A	A	0		
29	9173745	1	2	A	-	3	22350		N	C	C	A	A	H	-	B	A	0		
30	9179421	3	3	A	-	12	21453	A	N	B	C	A	A	H	-	C	A	0		
31	8609826	1	1	A	-	5	21650		N	A	I	A	A	H	-	A	A	0		
32	8778742	0	1	A	-	1	23152	B	N	E	I	A	A	H	-	C	A	0		
33	9114597	0	2	A	-	1	23152	B	N	D	C	A	A	H	-	C	A	0		
34	9178790	0	1	A	-	21	22106		N	E	I	A	A	H	-	A	A	0		
35	8659716	1	2	A	-	12	22450	A	N	D	D	A	A	H	-	A	A	0		
36	8659740	1	2	A	-	9	21802	A	N	D	C	A	A	H	-	A	D	0		
37	8931486	1	2	A	-	9	21802	A	N	D	C	A	A	G	-	A	A	0		
38	9049053	1	3	A	-	3	22350		N	C	C	A	A	D	-	A	A	0		
39	8816292	0	1	A	-	5	21650		N	E	I	A	A	H	-	C	A	0		
40	8834085	1	3	A	-	12	21453	A	N	D	C	A	A	H	-	C	A	0		
41	9005102	1	2	A	-	12	21453	A	N	D	C	A	A	H	-	A	A	0		
42	9120076	0	1	A	-	5	21650		N	A	I	A	A	H	-	B	D	0		
43	9201213	0	2	A	-	3	22350		M	C	C	A	A	H	-	C	A	0		
44	9212611	2	2	A	-	3	22350		N	C	C	A	A	H	-	C	A	0		
45	8898822	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0		
46	9227142	1	3	-	-				F	D	D	A	A	H	-	C	A	0		
47	91135362	1	2	C	-	18			N	C	G	A	B	H	-	D	D	0		Y
48	90990099	0	1	C	-	18			N	H	H	A	A	H	-	D	D	0		
49	90706038	4	3	A	-	1	23152	A	N	B	C	A	A	H	-	C	A	0		
50	91145530	0	1	A	-	8	22107		N	E	I	A	B	H	-	B	D	0		
51	8773078	1	2	A	-	21	22106		N	D	C	A	B	H	-	C	A	0		
52	8857570	1	2	A	-	8	22107		N	B	D	A	A	H	-	D	A	0		
53	9005090	1	2	A	-	3	22350		N	D	C	A	A	H	-	A	A	0		
54	9068998	0	1	A	-	1	23152	A	N	E	I	A	A	H	-	A	D	0		
55	8796139	0	2	A	-	3	22350		N	C	C	A	A	H	-	B	A	0		
56	8660044	0	1	A	-	5	21650		M	E	I	A	A	H	-	C	A	0		
57	8929239	0	1	A	-	5	21650		N	A	I	A	A	H	-	A	A	0		
58	9219336	0	3	A	-	1	23152	A	N	C	C	A	A	H	-	C	A	0		
59	91061210	0	2	A	-	1	23152	A	N	E	I	A	A	H	-	D	D	0		
60	91223516	0	1	A	-	8	22107		M	E	I	A	A	H	-	D	D	0		
61	90876457	1	2	A	-	5	21752	D	N	D	C	A	A	H	-	A	D	0		
62	91162274	0	2	A	-	9	21802	B	N	D	C	A	A	H	-	A	A	0		
63	91185467	0	2	A	-	9	21802	A	N	D	C	A	A	H	-	A	A	0		
64	91169483	1	2	A	-	9	21802	A	N	D	C	A	A	H	-	A	A	0		
65	91355789	0	3	A	-	9	21802	A	N	D	C	A	A	H	-	A	A	0		
66	91356144	0	2	A	-	9	21802	A	N	D	C	A	A	H	-	A	A	0		
67	91356154	0	2	A	-	9	21802	A	N	D	C	A	A	H	-	D	A	0		
68	90965344	3	2	A	-	9	21802	A	N	D	C	A	A	H	-	D	D	0		
69	91005574	1	2	A	-	12	22450	A	N	D	C	A	A	H	-	B	A	0		
70	90841827	2	2	A	-	9	21802	A	N	D	C	A	A	H	-	A	A	0		
71	90946930	1	2	A	-	12	22450	A	N	D	C	A	A	H	-	A	A	0		
72	91356424	1	2	A	-	9	21802	A	N	D	C	A	A	H	-	A	A	0		
73	90889880	0	2	A	-	8	22100	B	N	D	C	A	A	H	-	A	D	0		
74	90719958	1	2	A	-	12	22450	A	N	D	C	A	A	H	-	D	A	0		

OBJECTID	CASE_ID	MOTORCYCLE_ACCIDENT	TRUCK_ACCIDENT	NOT_PRIVATE_PROPERTY	ALCOHOL_INVOLVED	STWD_VEHTYPE_AT_FAULT	CHP_VEHTYPE_AT_FAULT	COUNT_SEVERE_INJ	COUNT_VISIBLE_INJ	COUNT_COMPLAINT_PAIN	COUNT_PED_KILLED	COUNT_PED_INJURED	COUNT_BICYCLIST_KILLED	COUNT_BICYCLIST_INJURED	COUNT_MC_KILLED	COUNT_MC_INJURED	INT
1	8659357			Y		A	1	0	0	4	0	0	0	0	0	0	25
2	8728592			Y		A	8	0	0	2	0	0	0	0	0	0	25
3	8750196			Y		D	22	0	0	1	0	0	0	0	0	0	25
4	8853709		Y	Y		-	-	0	0	0	0	0	0	0	0	0	25
5	8930728		Y	Y		F	27	0	0	0	0	0	0	0	0	0	25
6	9043256			Y	Y	A	1	0	0	0	0	0	0	0	0	0	25
7	9080403			Y		A	1	0	0	0	0	0	0	0	0	0	25
8	9080893			Y		A	1	0	0	1	0	0	0	0	0	0	25
9	9081807			Y		A	1	0	0	0	0	0	0	0	0	0	25
10	9105474			Y		A	7	0	0	0	0	0	0	0	0	0	25
11	9157153			Y		D	22	0	0	0	0	0	0	0	0	0	25
12	8682448			Y	Y	I	12	0	0	0	0	0	0	0	0	0	17
13	8854402			Y		D	22	0	0	1	0	0	0	0	0	0	17
14	8857574			Y		A	1	0	1	0	0	0	0	0	0	0	17
15	8873900		Y	Y		A	7	0	0	2	0	0	0	0	0	0	17
16	8816529			Y		A	1	0	0	0	0	0	0	0	0	0	9
17	8816549			Y		A	1	0	0	0	0	0	0	0	0	0	9
18	8949863			Y		A	7	0	1	0	0	0	0	0	0	0	9
19	9005285			Y		A	7	0	0	0	0	0	0	0	0	0	9
20	9173693			Y		A	1	0	0	0	0	0	0	0	0	0	9
21	8584994			Y		A	1	0	0	1	0	0	0	0	0	0	6
22	8750180			Y		D	22	0	0	0	0	0	0	0	0	0	6
23	8816316			Y		D	22	0	0	1	0	0	0	0	0	0	6
24	8897651			Y		A	1	0	1	1	0	0	0	0	0	0	6
25	9016253			Y		D	22	0	1	0	0	0	0	0	0	0	6
26	9068767			Y		A	1	0	0	0	0	0	0	0	0	0	6
27	9080796			Y		A	1	0	1	0	0	0	0	0	0	0	6
28	9114573			Y		A	1	0	0	0	0	0	0	0	0	0	6
29	9173745			Y		A	1	0	1	0	0	0	0	0	0	0	6
30	9179421			Y		A	1	0	3	0	0	0	0	0	0	0	6
31	8609826			Y		D	22	0	1	0	0	0	0	0	0	0	16
32	8778742			Y	Y	D	22	0	0	0	0	0	0	0	0	0	24
33	9114597			Y	Y	D	22	0	0	0	0	0	0	0	0	0	24
34	9178790		Y	Y		G	25	0	0	0	0	0	0	0	0	0	15
35	8659716			Y		A	7	0	0	1	0	0	0	0	0	0	20
36	8659740			Y		A	1	0	0	1	0	0	0	0	0	0	20
37	8931486			Y		A	1	0	0	1	0	0	0	0	0	0	20
38	9049053	Y		Y		A	1	0	0	1	0	0	0	0	0	1	3
39	8816292			Y		D	22	0	0	0	0	0	0	0	0	0	3
40	8834085			Y		A	1	0	0	1	0	0	0	0	0	0	3
41	9005102			Y		D	22	0	0	1	0	0	0	0	0	0	3
42	9120076			Y		D	22	0	0	0	0	0	0	0	0	0	3
43	9201213			Y		A	1	0	0	0	0	0	0	0	0	0	3
44	9212611			Y		A	1	0	2	0	0	0	0	0	0	0	3
45	8898822			Y		A	1	0	0	0	0	0	0	0	0	0	8
46	9227142			Y		A	1	0	1	0	0	0	0	0	0	0	8
47	91135362			Y		-	-	1	0	0	0	0	0	0	1	0	
48	90990099			Y		-	-	0	0	0	0	0	0	0	0	0	
49	90706038			Y	Y	A	1	0	2	2	0	0	0	0	0	0	14
50	91145530			Y		D	22	0	0	0	0	0	0	0	0	0	11
51	8773078			Y		A	1	0	0	1	0	0	0	0	0	0	14
52	8857570			Y		D	72	0	0	1	0	0	0	0	0	0	14
53	9005090		Y	Y		A	1	1	0	0	0	0	0	0	0	0	14
54	9068998			Y	Y	A	1	0	0	0	0	0	0	0	0	0	14
55	8796139			Y		A	1	0	0	0	0	0	0	0	0	0	23
56	8660044			Y		A	1	0	0	0	0	0	0	0	0	0	23
57	8929239			Y		D	22	0	0	0	0	0	0	0	0	0	23
58	9219336			Y	Y	A	1	0	0	0	0	0	0	0	0	0	23
59	91061210			Y	Y	A	1	0	0	0	0	0	0	0	0	0	
60	91223516			Y		D	22	0	0	0	0	0	0	0	0	0	13
61	90876457		Y	Y		A	1	0	0	1	0	0	0	0	0	0	12
62	91162274			Y		E	22	0	0	0	0	0	0	0	0	0	12
63	91185467			Y		A	7	0	0	0	0	0	0	0	0	0	12
64	91169483			Y		A	7	0	0	1	0	0	0	0	0	0	12
65	91355789			Y		D	22	0	0	0	0	0	0	0	0	0	12
66	91356144			Y		A	7	0	0	0	0	0	0	0	0	0	12
67	91356154			Y		A	1	0	0	0	0	0	0	0	0	0	12
68	90965344			Y		A	1	0	3	0	0	0	0	0	0	0	12
69	91005574			Y		D	22	0	0	1	0	0	0	0	0	0	12
70	90841827			Y		A	1	0	0	2	0	0	0	0	0	0	12
71	90946930			Y		D	22	0	1	0	0	0	0	0	0	0	12
72	91356424			Y		A	8	0	1	0	0	0	0	0	0	0	12
73	90889880			Y		H	15	0	0	0	0	0	0	0	0	0	21
74	90719958			Y		D	22	1	0	0	0	0	0	0	0	0	21

K – Fair-Share Calculations

FAIR SHARE CALCULATION WORKSHEET

Project: Shirk & Riggin Industrial Park Project # : 195170025
Date: 9-Oct-23

HORIZON YEAR (2048) PLUS PROJECT

EQUITABLE SHARE RESPONSIBILITY

$$FS\% = \frac{PT}{T_F - T_E}$$

Where:

FS% = The equitable share for the proposed project's traffic impact.
PT = The vehicle trips generated by the project during the peak-hour of the facility in vehicles per hour, vph
T_F = The forecasted traffic volumes on an impacted facility at the time of future scenario, vph.
T_E = The traffic volumes existing on the impacted facility, vph.

Int #20	N Roeben St & W Ferguson Ave									
AM Peak	FS% =	PT	/	T_F - T_E	=	90	/	730 - 387	=	26.24%
PM Peak	FS% =	PT	/	T_F - T_E	=	90	/	1,050 - 465	=	15.38%

L – TCAG Model Plots and Growth Calculations

GROWTH RATES

AM, 0.61 ·1·
PM, 0.68 ·1·

AM, N/A
PM,

AM, N/A
PM,

AM, 2.38 ·1·
PM, 3.46 ·1·

AM, 3.37 ·1·
PM, 3.74 ·1·

AM, 0.93 ·1·
PM, 1.35 ·1·

AM, 2.10 ·1·
PM, 2.33 ·1·

AM, 2.85 ·1·
PM, 3.39 ·1·

AM, 0.67 ·1·
PM, 0.67 ·1·

AM, 3.43 ·1·
PM, 4.09 ·1·

AM, 1.01 ·1·
PM, 0.84 ·1·

AM, N/A
PM

AM, 0.83 ·1·
PM, 0.97 ·1·

AM, -0.92 ·1·
PM, -0.40 ·1·

AM, -2.13 ·1·
PM, 0.42 ·1·

AM, -1.16 ·1·
PM, -0.69 ·1·

AM, 0.67 ·1·
PM, 1.21 ·1·

AM, 1.25 ·1·
PM, 1.80 ·1·

AM, 0.94 ·1·
PM, 0.76 ·1·

AM, 1.16 ·1·
PM, 1.30 ·1·

AM, 0.72 ·1·
PM, 1.09 ·1·

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Delta Values

AM: Δ 29, 4.3
PM: Δ 35, 3.0

AM: Δ -1
PM: Δ 0

AM: -6
PM: -22

AM: 38, 5.6
PM: 62, 5.2

AM: 2
PM: 0

AM: 1, 0.1
PM: 1, 0.1

AM: 0
PM: 1

AM: Δ 5, 0.7
PM: Δ 29, 2.5

AM: 3, 0.4
PM: 26, 2.2

AM: Δ 82, 12.1
PM: Δ 127, 10.8

4.9

AM: -6
PM: -25

AM: -2
PM: 7

AM: 13, 1.9
PM: 39, 3.3

AM: -2
PM: -5

AM: -1
PM: -5

3.8

AM: Δ 26
PM: Δ 45

AM: 33
PM: 61, 5.2

AM: 65
PM: 106

AM: 23
PM: 67

AM: Δ 2, 0.3
PM: Δ 52, 4.4

AM: 43, 6.4
PM: 72, 6.1

AM: -2
PM: 113

AM: 284, 44.9
PM: 546, 46.5

AM: 18, 2.7
PM: 72, 6.1

AM: 10, 1.5
PM: 63, 5.4

AM: -3
PM: 1

AM: Δ -2
PM: Δ 1

AM: 276, 43.8
PM: 502, 42.8

AM: 219, 32.3
PM: 361, 30.8

AM: Δ 6, 0.9
PM: Δ 9, 0.8

AM: -13
PM: -4

22.9

AM: 207, 30.6
PM: 371, 31.6

AM: 17, 2.5
PM: 58, 4.9

AM: Δ 1
PM: Δ -7

AM: 155, 19.8
PM: 232, 19.9

AM: 2, 0.3
PM: 4, 0.3

AM: -9
PM: -8

AM: 206, 30.3
PM: 327, 27.7

AM: -4
PM: -1

AM: Δ 19, 2.8
PM: Δ 67, 5.7

AM: Δ -14
PM: Δ -12

AM: Δ 135, 17.6
PM: Δ 206, 17.6

AM: Δ 0
PM: Δ -3

AM: 205, 31.9
PM: 321, 27.7

AM: 13, 1.9
PM: 54, 4.6

AM: Δ -3
PM: Δ -3

AM: Δ -5
PM: Δ -8

AM: Δ 183, 27.0
PM: Δ 287, 24.5

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M – Vehicle Miles Traveled Information

Screening Maps

3.0 PROJECT SCREENING

The TA acknowledges that certain activities and projects may result in a reduction in VMT and GHG emissions and, therefore, a less than significant impact to transportation and circulation. A variety of projects may be screened out of a complicated VMT analysis due to the presumption described in the TA regarding the occurrence of less than significant impacts.

3.1 LAND USE DEVELOPMENT PROJECTS

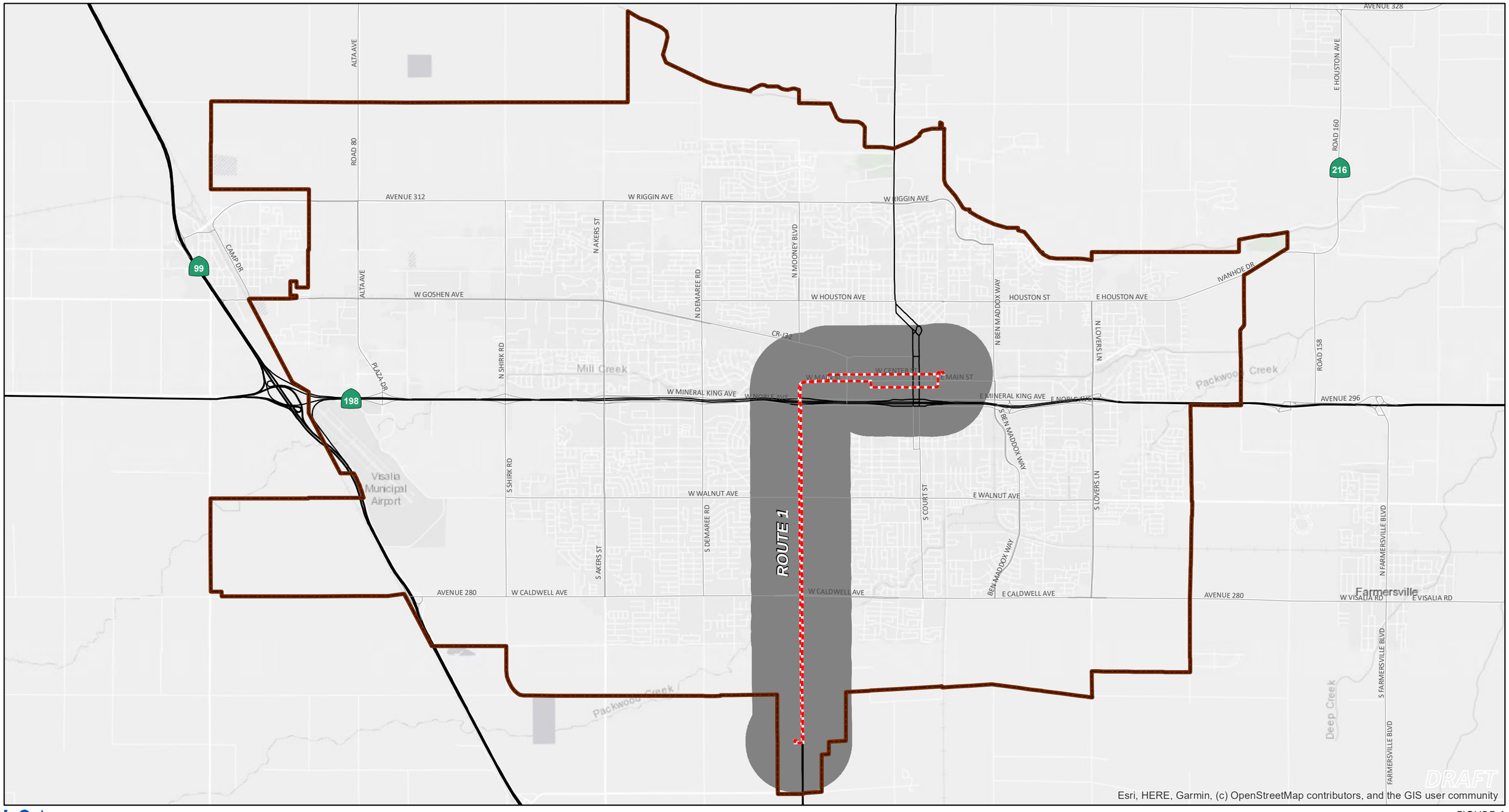
The TA acknowledges that conditions may exist that would presume that a development project has a less than significant impact. These may be size, location, proximity to transit, or trip-making potential. For example, development projects that have one or more of the following attributes may be presumed to create a less than significant impact:

- The project is within 0.5 mile of a Transit Priority Area or a High-Quality Transit Area unless the project is inconsistent with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), has a floor area ratio (FAR) less than 0.75, provides an excessive amount of parking, or reduces the number of affordable residential units. In accordance with SB 743, "Transit priority areas" are defined as "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program. A Major Transit Stop means: "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service of 15 minutes or less during the morning and afternoon peak commute periods." A High-Quality Transit Area or Corridor is a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

  Figure 4 depicts transit priority areas within Visalia including high-quality transit areas (within 0.5 mile of a major transit stop) served by the Visalia Transit with service intervals of 15 minutes or less. Projects proposed in these areas may be presumed to have a less than significant transportation impact unless the project is inconsistent with the RTP/SCS, has an FAR less than 0.75, provides an excessive amount of parking, or reduces the number of affordable residential units.

- The project involves local-serving retail space of less than 50,000 square feet (sf).
- The project is 100 percent deed-restricted affordable housing units.
- For the City of Visalia, projects consistent with the City's General Plan can be screened if the project would generate fewer than 1,000 average daily trips (ADT), and projects not consistent with the City's General Plan can be screened if the project would generate fewer than 500 ADT.

  The TA recommends a volume of 110 ADT. This recommendation is not based on any analysis of GHG reduction but, rather, on a CEQA categorical exemption. This exemption criterion states that for existing facilities, including additions to existing structures of up to 10,000 sf, the project is exempted from CEQA as long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not located in an environmentally sensitive area (*State CEQA Guidelines* Section 15301, subdivision (e)(2).



LSA

LEGEND

- City of Visalia Sphere of Influence
- Visalia Transit Route 1
- Half Mile Buffer

0 2500 5000
FEET

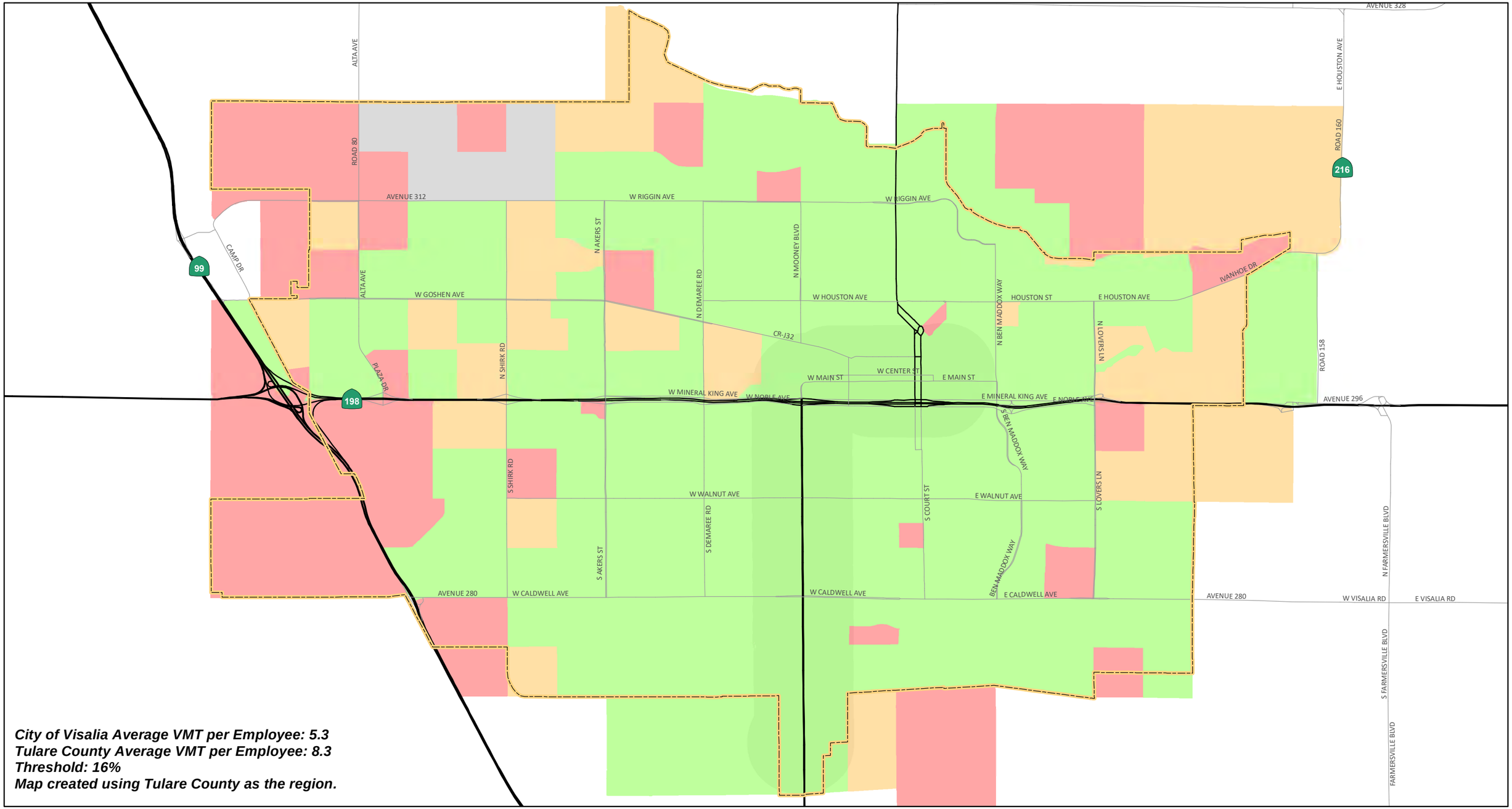
SOURCE: TCAG Model; City of Visalia;Tulare County (11/20)

R:\VSL2001 Visalia VMT\GIS\fig_4_HQ Transit.mxd (1/19/2021)

FIGURE 4

City of Visalia VMT Thresholds and Implementation Guidelines

High Quality Transit Area within City of Visalia



City of Visalia Average VMT per Employee: 5.3
Tulare County Average VMT per Employee: 8.3
Threshold: 16%
Map created using Tulare County as the region.

LSA

LEGEND

City of Visalia Sphere of Influence

VMT per Employee

- No Employment
- 7.0 or Less
- More than 7.0, up to 8.3
- Greater than 8.3

0 2500 5000
FEET

SOURCE: TCAG Model; City of Visalia;Tulare County (11/20)

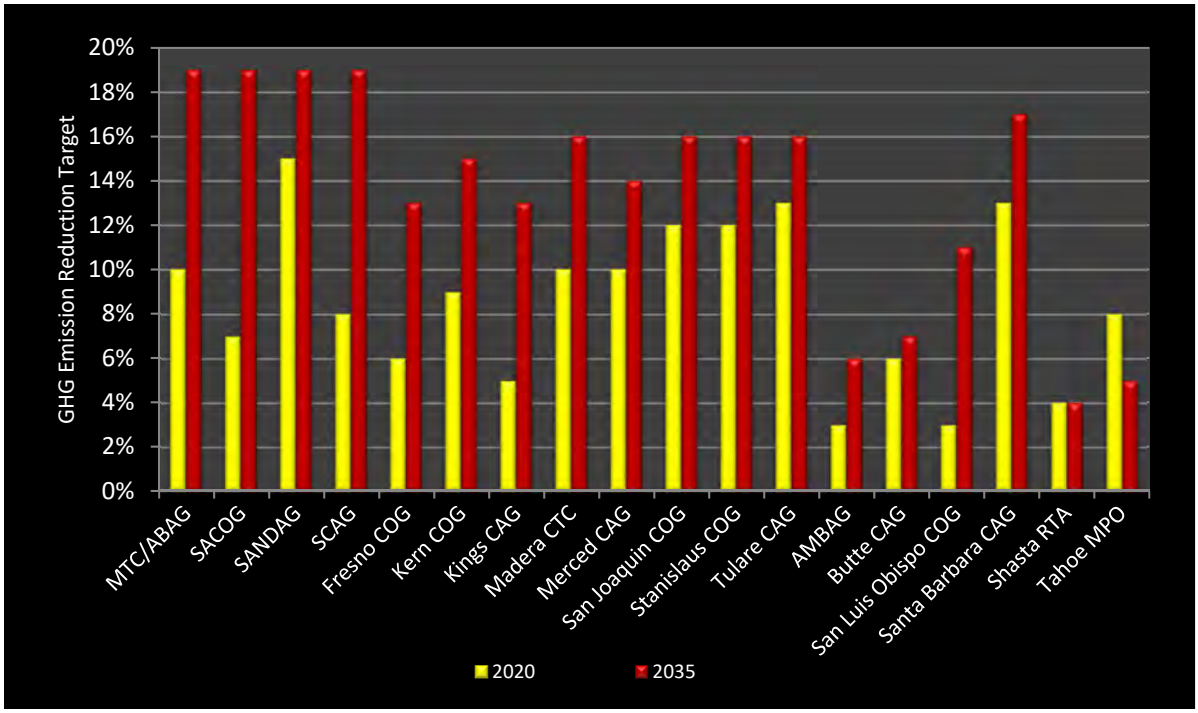
R:\VSL2001 Visalia VMT\GIS\VMT_Maps_01-21-2021\fig7_VMT_EMP.mxd (1/21/2021)

FIGURE 7

City of Visalia VMT Thresholds and Implementation Guidelines

City of Visalia - Existing VMT per Employee

VMT Calculations



Source: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets

Figure 9: SB 375 Regional Plan Climate Targets for the 18 California MPOs

CARB establishes GHG targets for each of the 18 MPOs in the State, reviews the SCSs, and makes a determination of whether the SCSs would achieve GHG reduction targets if implemented. In the spring of 2018, CARB adopted new GHG targets for all the 18 MPOs in the State based on the 2017 Scoping Plan and other new data as illustrated in Figure 9. CARB established a 16 percent GHG reduction target for 2035 for the Tulare region. The State recognizes that Tulare County's contribution to the aggregate 15 percent statewide GHG emission reduction is 16 percent. Other regions may achieve lower reductions to achieve the aggregate statewide goal.[4] As such, reduction in GHG directly corresponds to reduction in VMT. In order to reach the statewide GHG reduction goal of 15 percent, the Tulare region must reduce GHG by 16 percent. The method of reducing GHG by 16 percent is to reduce VMT by 16 percent as well.

Therefore, the City has established a threshold for land use developments, specifically residential and office, of exceeding 16 percent below the existing regional VMT per capita or VMT per employee as indicative of a significant environmental impact.

No other discrete land use types are identified for threshold development. Mixed-use projects should be evaluated in their entirety or the City may use the predominant land use type for the analysis. The City will make a determination of the predominant land use type on a case-by-case basis based on the project description. Credit for internal trip capture should be made. Internal trip

[4] The latest GHG targets by region can be found at https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets.

capture may be calculated using the latest edition of the Institute of Transportation Engineers (ITE) *Trip Generation Handbook* (for smaller projects), the TCAG Model (for larger projects), or other applicable sources approved by the agency. If the mixed-use project is evaluated in its entirety, then VMT per service population (population + employment) needs to be used as the metric. The significance threshold for such projects will be the same as residential and office projects (84% of the existing regional VMT per service population).

The TA suggests that lead agency may, but is not required to, develop thresholds for any other use. As such, for land use types other than residential, office, and retail, one approach is to review the agency General Plan and/or the TCAG RTP/SCS and identify whether the implementation of the plan would result in a reduction of VMT and GHGs. If it does, the City may conclude the implementation of the plan, including all the other land use types will achieve the regional climate change goals. Therefore, consistency with the plan and no net change in VMT per employee for the other land use types is a rational threshold. However, for projects seeking a GPA, a project exceeding a level of 84 percent of the existing County average VMT per employee would indicate a significant transportation impact.

This approach would require disclosure of substantial evidence, including the General Plan findings, and other traffic and air quality forecasting support. Additionally, if the City wishes to establish some other threshold less stringent than the 84 percent recommended for residential and office projects, a body of substantial evidence would be necessary.

4.2 LAND USE PROJECT VMT ANALYSIS/MITIGATION PROCEDURE

Figure 10 demonstrates the potential development entitlement process to comply with the *State CEQA Guidelines* related to VMT and transportation impacts. It provides the path from application filing through determination of impacts. It is presented as the standard process; each development application is considered unique and may create alternative or modified steps through the process. Each step that diverges from this standard process should be accompanied with substantial evidence demonstrating compliance with other climate change and GHG emission reduction laws and regulations.

4.2.1 Agency Communication

After the Site Plan Review process, the applicant should seek a meeting with City staff to discuss the project description, potential resident/employee numbers, and the analysis methodology. Key elements to address include a description of the project in sufficient detail to generate trips and identify the potential catchment area (i.e., trip lengths if no modeling is undertaken), estimate project VMT, discuss project design features that may reduce the VMT from the project development, and discuss the project location and associated existing regional VMT percentages. As a result of the meeting, the applicant or their consultant shall prepare a transportation analysis scope of work for review and approval by the City.

Projects that will influence Caltrans facilities may be subject to the Caltrans Local Development-Intergovernmental Review program. As part of the program, Caltrans may review the VMT analysis methodology, findings, and mitigation measures, with an eye toward statewide consistency.

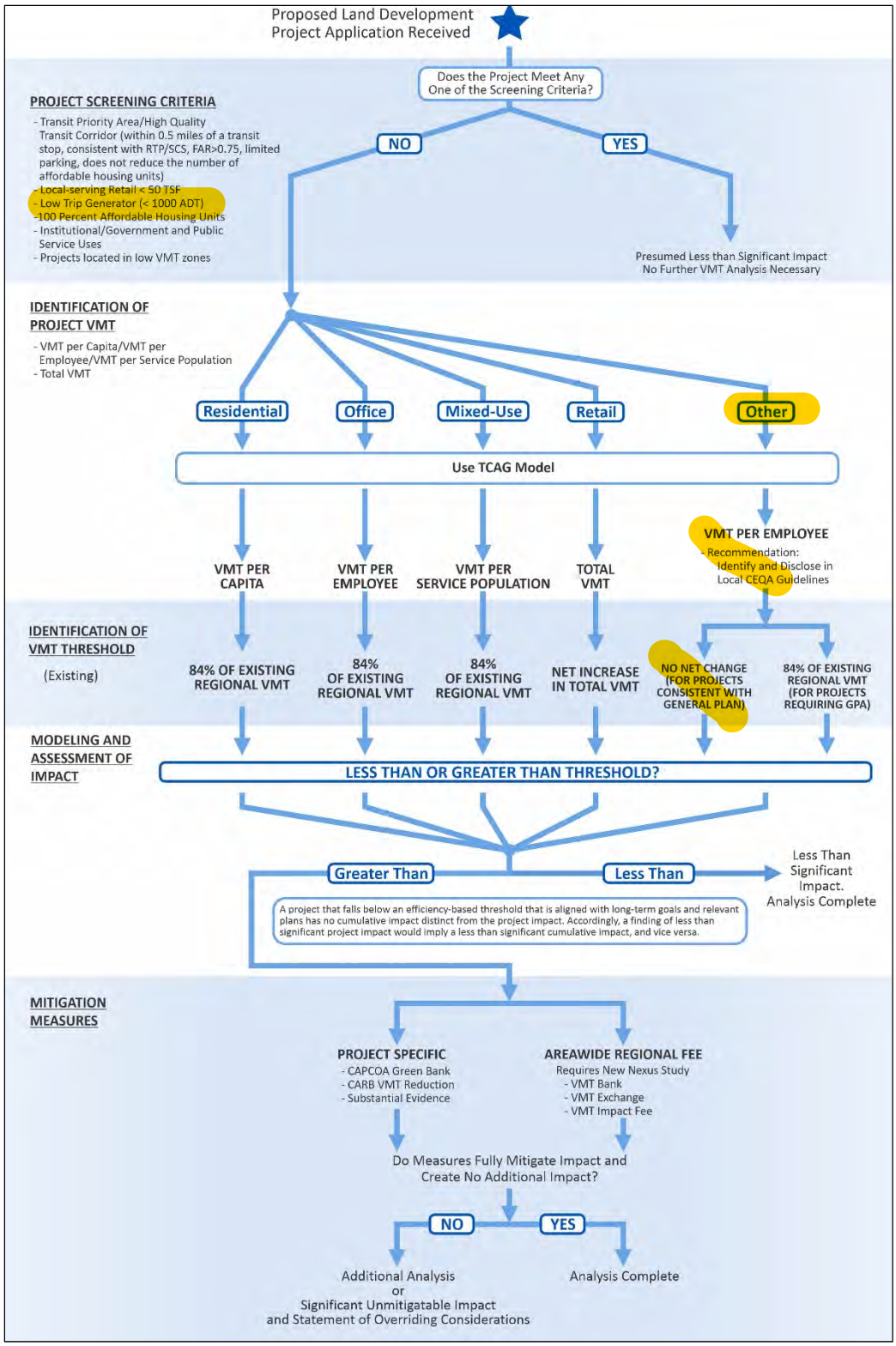
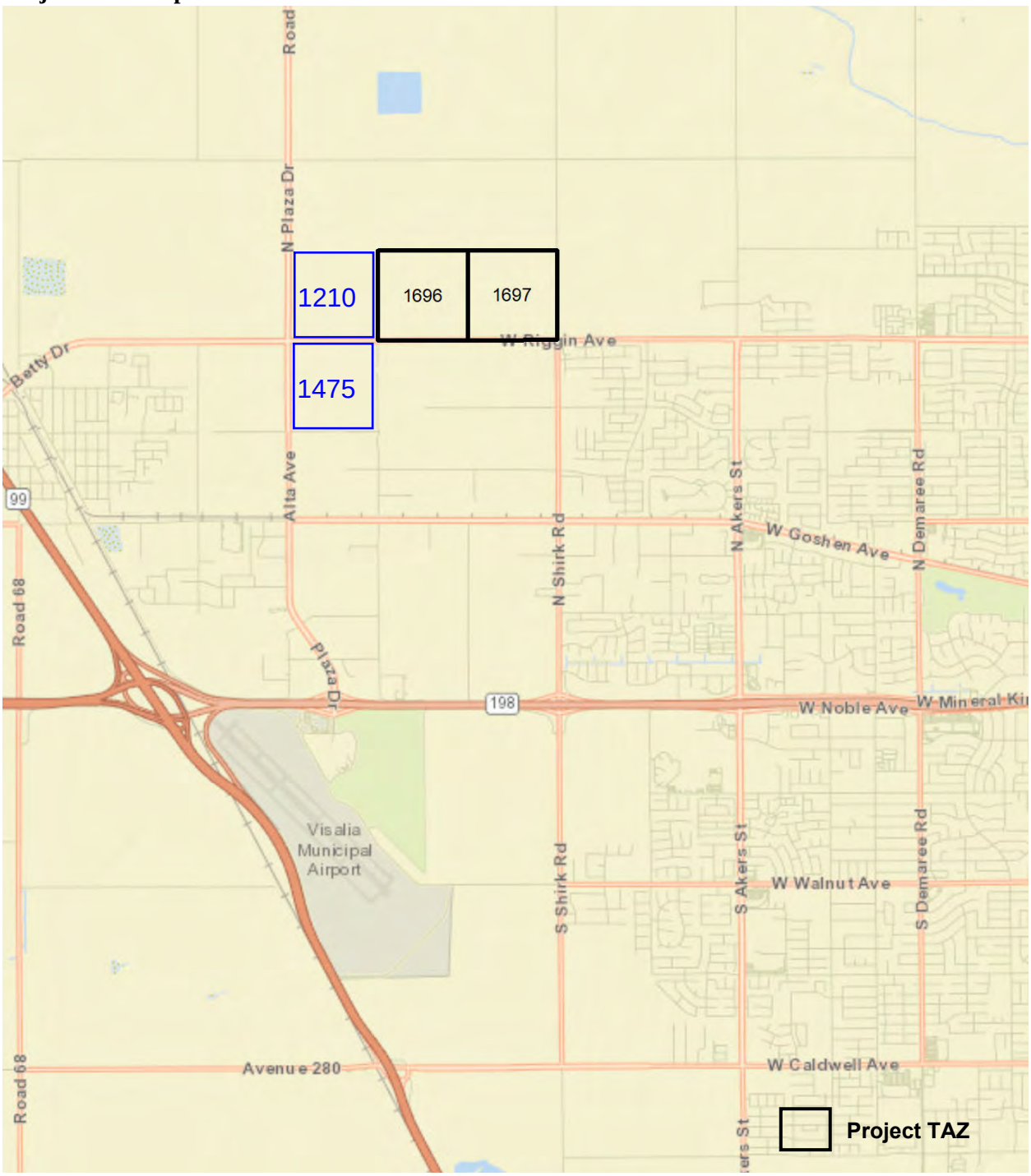


Figure 10: VMT Analysis Process for Development Projects

Project TAZ Map



Model Results and VMT Calculations:

Existing Without Project VMT Model Results:

TAZ	COUNTY	PUMA	CITY	TOTPOP	TOTEMP	HW_A	EMPEDU	EMPFOO	EMPGOV	EMPIND	EMPMED	EMPOFC	EMPOTH	EMPRET	EMPAGR	ELEM	HS	COLLEGE
1200	Tulare	2901C	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1206	Tulare	10701	Visalia	5.52	7	42	0	0	3.67	0	0	0	0	0	3.33	0	0	0
1207	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1208	Tulare	10701	Visalia	0	608.51	2453	0	85	5.51	0	0	11	0	507	0	0	0	0
1209	Tulare	10701	Visalia	0	159.71	1193	0	0	53.27	43.95	0	7	0	53	2.5	0	0	0
1210	Tulare	10701	Visalia	0	341.33	3430	0	0	41.33	300	0	0	0	0	0	0	0	0
1211	Tulare	10701	Visalia	13.79	706.75	4191	0	0	469.31	0	0	25	207.45	0	4.99	0	0	0
1470	Tulare	10701	Visalia	274.21	29.06	84	0	2	0	2	0	0	10.06	15	0	0	0	0
1471	Tulare	10701	Visalia	13.08	139.07	584	0	2	7.35	11	70.72	43	0	5	0	0	0	0
1472	Tulare	10701	Visalia	255.67	11.87	75	0	0	0	9.87	0	2	0	0	0	0	0	0
1473	Tulare	10701	Visalia	248.6	557.71	990	0	19	0	18.79	0	3	502.91	14	0	0	0	0
1474	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1475	Tulare	10701	Visalia	5.52	8.27	78	0	0	8.27	0	0	0	0	0	0	0	0	0
1476	Tulare	10701	Visalia	0	249.2	2618	0	156	0	12	19.2	12	0	50	0	0	0	0
1477	Tulare	10701	Visalia	24.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1478	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1691	Tulare	10701	Unincorpo	30.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1692	Tulare	10701	Unincorpo	44.13	8.32	0	0	0	0	0	0	0	0	0	8.32	0	0	0
1693	Tulare	10701	Unincorpo	0	0.83	5	0	0	0	0	0	0	0	0	0.83	0	0	0
1694	Tulare	10701	Unincorpo	179.26	3	43	0	2	0	0	0	1	0	0	0	0	0	0
1695	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1696	Tulare	10701	Unincorpo	0	4030	46194	0	0	0	4030	0	0	0	0	0	0	0	0
1697	Tulare	10701	Unincorpo	0	50	878	0	41	0	0	0	0	0	9	0	0	0	0
1698	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1699	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1701	Tulare	10701	Unincorpo	113.07	28.24	283	0	0	0	25.24	0	0	0	3	0	0	0	0

Existing With Project VMT Model Results: TAZ 1696 and 1697

TAZ	COUNTY	PUMA	CITY	TOTPOP	TOTEMP	HW_A	EMPEDU	EMPFOO	EMPGOV	EMPIND	EMPMED	EMPOFC	EMPOTH	EMPRET	EMPAGR	ELEM	HS	COLLEGE
1679	Tulare	10702	Unincorpo	47.33	9	77	0	2	0	0	0	0	7	0	0	0	0	0
1680	Tulare	10702	Unincorpo	62.12	14.97	157	0	0	0	0	0	0	0	0	14.97	0	0	0
1681	Tulare	10702	Unincorpo	409.66	1393.43	12741	0	1	5.51	1321.65	30.31	15	0	0	19.96	0	0	0
1682	Tulare	10701	Unincorpo	5.52	86.96	1027	0	0	75.31	0	0	0	0	0	11.65	0	0	0
1683	Tulare	10701	Unincorpo	8.27	41.59	347	0	0	0	0	0	0	0	0	41.59	0	0	0
1684	Tulare	10701	Unincorpo	0	10.81	80	0	0	0	0	0	0	0	0	10.81	0	0	0
1685	Tulare	10701	Unincorpo	2.76	7.49	54	0	0	0	0	0	0	0	0	7.49	0	0	0
1686	Tulare	10701	Unincorpo	229.64	25.22	311	0	7	0.92	3.97	0	0	0	10	3.33	0	0	0
1687	Tulare	10701	Unincorpo	393.29	33.14	389	0	6	11.02	0	12.12	4	0	0	0	0	0	0
1688	Tulare	10701	Unincorpo	55.16	12.16	135	0	0	0	4	0	4	0	0	4.16	0	0	0
1689	Tulare	10701	Unincorpo	8.27	4.99	36	0	0	0	0	0	0	0	0	4.99	0	0	0
1690	Tulare	10701	Unincorpo	0	4.16	28	0	0	0	0	0	0	0	0	4.16	0	0	0
1691	Tulare	10701	Unincorpo	30.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1692	Tulare	10701	Unincorpo	44.13	8.32	0	0	0	0	0	0	0	0	0	8.32	0	0	0
1693	Tulare	10701	Unincorpo	0	0.83	5	0	0	0	0	0	0	0	0	0.83	0	0	0
1694	Tulare	10701	Unincorpo	179.26	3	43	0	2	0	0	0	1	0	0	0	0	0	0
1695	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1696	Tulare	10701	Unincorpo	0	4030	46194	0	0	0	4030	0	0	0	0	0	0	0	0
1697	Tulare	10701	Unincorpo	0	50	878	0	41	0	0	0	0	0	9	0	0	0	0
1698	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1699	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	Tulare	10701	Unincorpo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1701	Tulare	10701	Unincorpo	113.07	28.24	283	0	0	0	25.24	0	0	0	3	0	0	0	0
1702	Tulare	10703	Unincorpo	667.94	8.73	133	0	0	0	7.89	0	0	0	0	0.83	0	0	0
1703	Tulare	10703	Unincorpo	311.33	524.97	6387	0	0	0	228.85	0	0	0	0	296.12	0	0	0
1704	Tulare	10703	Unincorpo	0	4.16	94	0	0	0	0	0	0	0	0	4.16	0	0	0
1705	Tulare	10703	Unincorpo	53.77	9.15	129	0	0	0	0	0	0	0	0	9.15	0	0	0

Existing With Project VMT Model Results: TAZ 1210

TAZ	COUNTY	PUMA	CITY	TOTPOP	TOTEMP	HW_A	EMPEDU	EMPFOO	EMPGOV	EMPIND	EMPMED	EMPOFC	EMPOTH	EMPRET	EMPAGR	ELEM	HS	COLLEGE
1201	Tulare	10701	Visalia	0	9.41	86	0	0	2.76	0	0	0	0	0	6.65	0	0	0
1202	Tulare	10701	Visalia	44.13	9.21	20	0	0	0	0	0	0	7.54	0	1.66	0	0	0
1203	Tulare	10701	Visalia	0	15.03	76	0	0	0	0	5.05	0	0	0	9.98	0	0	0
1204	Tulare	10701	Visalia	512.96	11.5	66	0	0	0	3	1.01	0	0	0	7.49	0	0	0
1205	Tulare	10701	Visalia	807.86	23.66	130	0	0	0	13.66	0	2	0	8	0	0	0	0
1206	Tulare	10701	Visalia	5.52	7	42	0	0	3.67	0	0	0	0	0	3.33	0	0	0
1207	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1208	Tulare	10701	Visalia	0	608.51	2449	0	85	5.51	0	0	11	0	507	0	0	0	0
1209	Tulare	10701	Visalia	0	159.71	1190	0	0	53.27	43.95	0	7	0	53	2.5	0	0	0
1210	Tulare	10701	Visalia	0	4421.33	39294	0	41	41.33	4330	0	0	0	9	0	0	0	0
1211	Tulare	10701	Visalia	13.79	706.75	4206	0	0	469.31	0	0	25	207.45	0	4.99	0	0	0
1212	Tulare	10701	Visalia	493.66	18	135	0	0	0	9	0	9	0	0	0	0	0	0
1213	Tulare	10701	Visalia	900.36	109	678	0	0	0	27.79	20.21	61	0	0	0	3.1	0	0
1214	Tulare	10701	Visalia	609.49	14.64	68	0	0	0	1.92	6.06	3	0	2	1.66	0	0	0
1215	Tulare	10701	Visalia	113.07	6.66	36	0	0	0	0	0	5	0	0	1.66	0	0	0
1216	Tulare	10701	Visalia	1046.33	15.57	102	0	2	0	5.75	0	2	0	0	5.82	0	0	0
1217	Tulare	10701	Visalia	1727.99	19.65	119	0	2	0	3.83	0	7	0	1	5.82	0	0	0
1218	Tulare	10701	Visalia	548.82	4	18	0	0	0	0	0	3	0	1	0	0	0	0
1219	Tulare	10701	Visalia	548.82	7.83	38	0	0	0	0	0	6	0	1	0.83	0	0	0
1220	Tulare	10701	Visalia	1013.81	232.42	928	65	18	17.45	4.79	116.18	3	0	8	0	586.75	0	0
1221	Tulare	10701	Visalia	328.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1222	Tulare	10701	Visalia	85.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1223	Tulare	10701	Visalia	597.9	5	22	0	0	0	0.96	4.04	0	0	0	0	0	0	0
1224	Tulare	10701	Visalia	164.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1225	Tulare	10701	Visalia	0	218.28	1910	0	0	104.7	85.2	0	7	21.37	0	0	0	0	0
1226	Tulare	10701	Visalia	0	922.39	2869	0	0	4.59	131	0	40	741.8	5	0	0	0	0
1227	Tulare	10701	Visalia	0	1174.25	5903	42	2	83.58	305.16	64.66	168	492.85	16	0	0	0	0

Existing With Project VMT Model Results: TAZ 1475

TAZ	COUNTY	PUMA	CITY	TOTPOP	TOTEMP	HW_A	EMPEDU	EMPFOO	EMPGOV	EMPIND	EMPMED	EMPOFC	EMPOTH	EMPRET	EMPAGR	ELEM	HS	COLLEGE
1465	Tulare	10701	Visalia	763.93	232.48	971	0	24	22.04	11.92	0	6	2.51	166	0	0	0	0
1466	Tulare	10701	Visalia	706.02	36.55	426	0	28	4.59	1.96	0	0	0	2	0	0	0	0
1467	Tulare	10701	Visalia	402.65	57.87	109	55	0	0	2.87	0	0	0	0	0	800.97	0	0
1468	Tulare	10701	Visalia	0	21.04	144	0	0	20.21	0	0	0	0	0	0.83	0	0	0
1469	Tulare	10701	Visalia	60.92	250.06	1436	0	3	101.03	6	3.03	136	0	1	0	0	0	0
1470	Tulare	10701	Visalia	274.21	29.06	84	0	2	0	2	0	0	10.06	15	0	0	0	0
1471	Tulare	10701	Visalia	13.08	139.07	582	0	2	7.35	11	70.72	43	0	5	0	0	0	0
1472	Tulare	10701	Visalia	255.67	11.87	74	0	0	0	9.87	0	2	0	0	0	0	0	0
1473	Tulare	10701	Visalia	248.6	557.71	991	0	19	0	18.79	0	3	502.91	14	0	0	0	0
1474	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1475	Tulare	10701	Visalia	5.52	4088.27	44338	0	41	8.27	4030	0	0	0	9	0	0	0	0
1476	Tulare	10701	Visalia	0	249.2	2625	0	156	0	12	19.2	12	0	50	0	0	0	0
1477	Tulare	10701	Visalia	24.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1478	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1479	Tulare	10701	Visalia	379.47	513.97	3146	0	162	0	15.92	5.05	24	0	307	0	0	0	0
1480	Tulare	10701	Visalia	11.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1481	Tulare	10701	Visalia	151.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1482	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1483	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1484	Tulare	10701	Visalia	8.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1485	Tulare	10701	Visalia	19.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1486	Tulare	10701	Visalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1487	Tulare	10701	Visalia	5.52	19	65	0	0	0	4	0	0	0	15	0	0	0	0
1488	Tulare	10701	Visalia	171.58	97.64	473	0	0	0	44.6	4.04	27	0	22	0	0	0	0
1489	Tulare	10701	Visalia	26.26	97.13	482	0	0	0	25	13.13	59	0	0	0	0	0	0
1490	Tulare	10701	Visalia	38.99	122.5	516	0	0	0	20.54	41.42	51	7.54	2	0	0	0	0

Project VMT Results:

Scenarios	No Project HBW VMT	No Project Emp	No Project VMT/Emp	With Project HBW VMT	With Project Emp	With Project VMT/Emp
Project (TAZ 1696 & 1697)	-	-	-	47,073	4,080	11.5
Project (TAZ 1210)	3418	341	10.0	39,294	4,421	8.9
Project (TAZ 1475)	79	8	9.5	44,338	4,088	10.9

VMT Mitigations

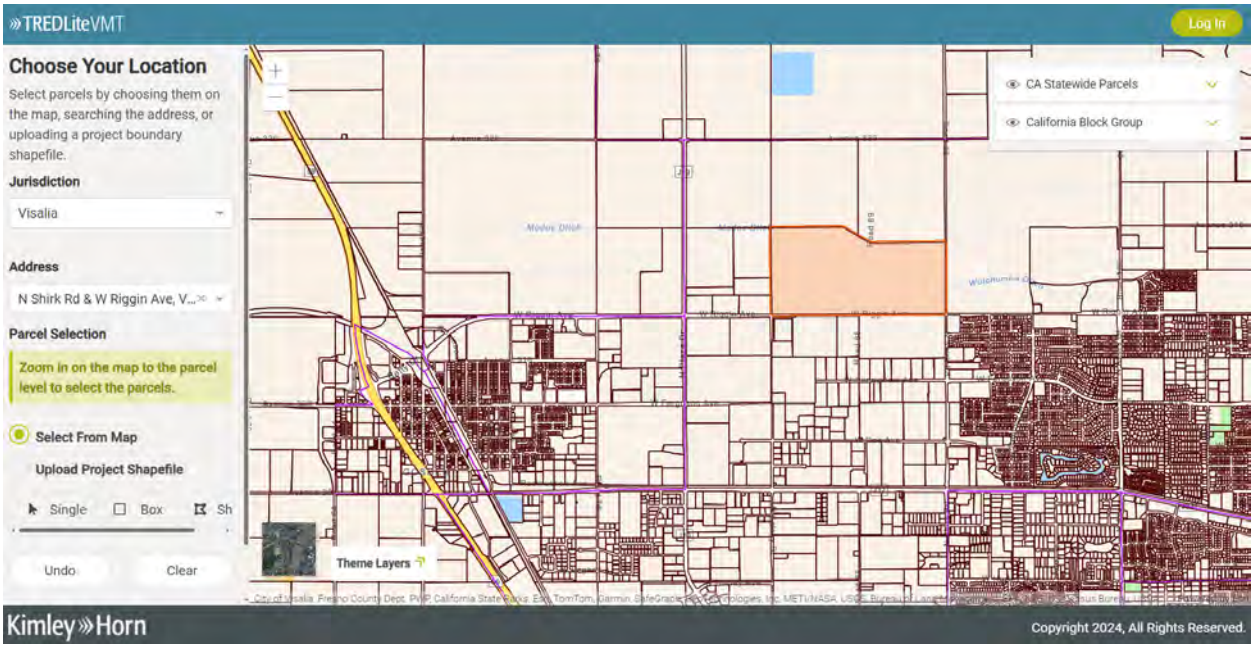
TREDLiteVMT | A Kimley-Horn Environmental Solution

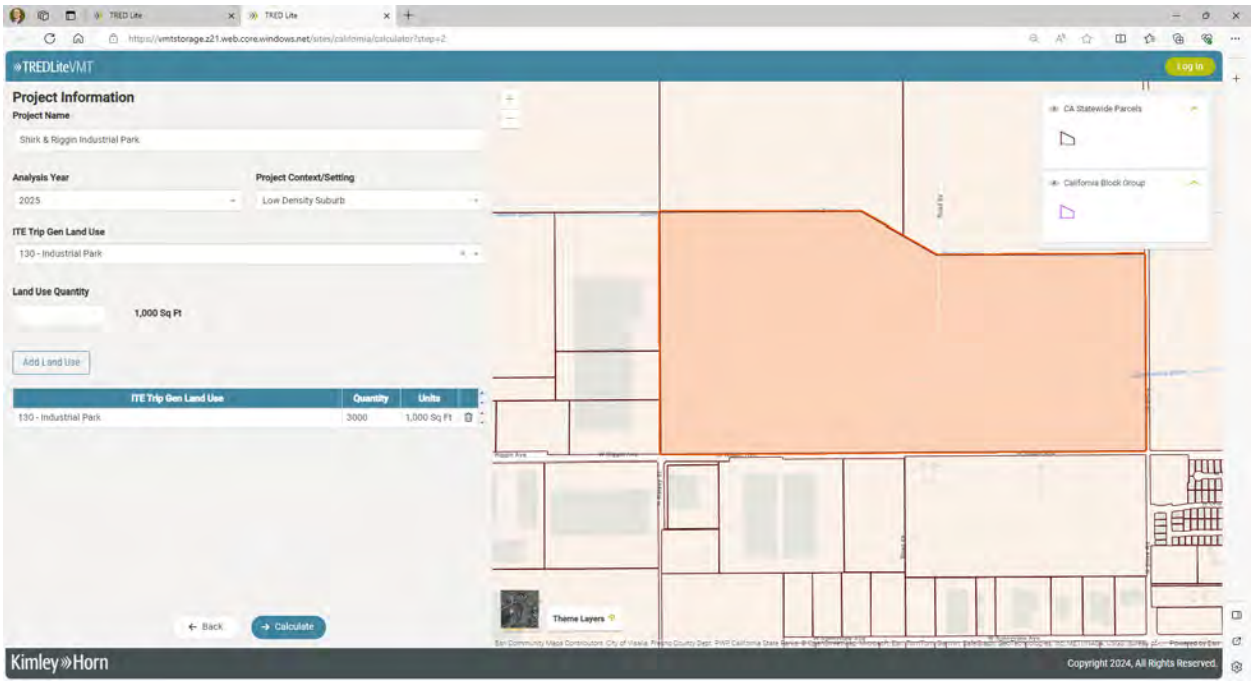
Project Name:	Shirk & Riggin Industrial Park
Location:	Visalia
Analysis Year:	2025

Kimley-Horn had developed a VMT efficiency matrices using Replica Big Data platform for the proposed project as well as covering most of the California. Replica provides travel and demographic data similar to a travel demand model with various trip attributes such as trip mode, trip purpose, trip distance, origin, and destination. Replica provides trip data for the year 2025 using different data points including cell phone data. Vehicle trips by purpose and trip distances for Tulare County and surrounding areas were compiled at block-group level from the Replica big data platform. Population data from the Census Bureau's American Community Survey (ACS) was compiled as well. VMT per Capita for the Tulare County as well as for the project area separately was calculated at block-group level, using the existing big data trips, trip purpose, trip distance and population. This tool was used for the purposes calculating the reduction of VMT with the implementation of proposed mitigations only.

Combining the proposed mitigation measures would reduce the proposed project's VMT per employee by 0.5 of the TREDLite estimate of 28.5 VMT, or 1.75 percent.

Model Network and Project TAZ:

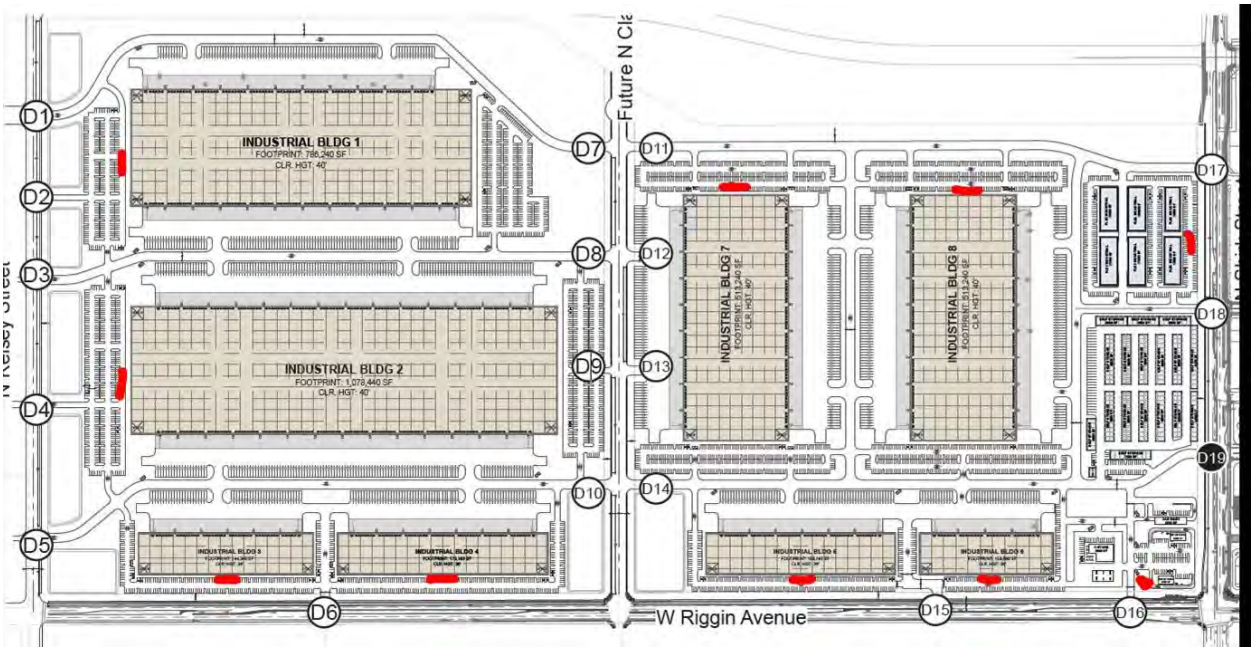




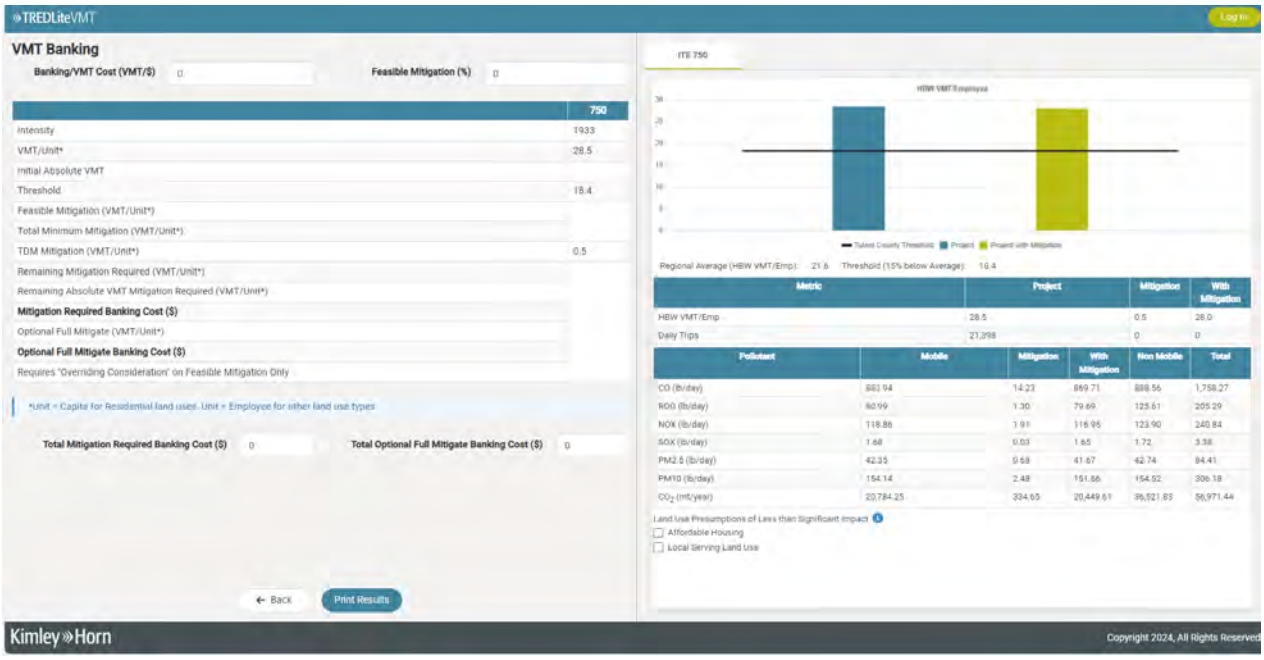
Mitigations:

Provide End-of-Trip Bicycle Facilities (T-10)	This measure will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers.	0.75%	Without	bicycle facility with/without locker & shower	0.51%
Construct or Improve Bike Facility (T-19-A)	This measure will construct or improve a single bicycle lane facility (only Class I, II, or IV) that connects to a larger existing bikeway network. Providing bicycle infrastructure helps to improve biking conditions within an area.	0.60%	Yes	Yes/No	0.60%
Expand Bikeway Network (T-20)	This measure will increase the length of a city or community bikeway network. A bicycle network is an interconnected system of bike lanes, bike paths, bike routes, and cycle tracks.	0.50%	Yes	Yes/No	0.50%

Recommended Locker Locations:



VMT Reduction:



LSA

Table A - Vehicle Miles Traveled Mitigation Measures for Land Development Projects

#	Mitigation Measure	VMT Reduction[1]	CAPCOA[2]	OPR TA[3]	Los Angeles Metro[4]	City of San Jose[5]	City of Los Angeles[6]	San Diego Region[7]	Notes
1	Improve or increase access to transit	CAPCOA TST-2: Not quantified alone, grouped strategy with TST-3 'Expand transit network' and TST-4 'Increase transit service frequency/speed'; CAPCOA LUT-5: 0.50% - 24.60%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TST-2: Implement Transit Access Improvements (applicable in urban and suburban context, and appropriate for residential, retail, office, mixed use, and industrial projects); CAPCOA LUT-5: Increase Transit Accessibility [May be grouped with CAPCOA measures LUT-3 (mixed use development), SDT-2 (traffic calmed streets with good connectivity), and PPT-1 through PPT-7 (parking management strategies); measures are applicable in urban and suburban contexts; appropriate in rural context if development site is adjacent to a commuter rail station with convenient rail service to a major employment center; appropriate for residential, retail, office, industrial, and mixed-use projects]; City of San Jose [Increase transit accessibility to improve last-mile transit connections; Improve network connectivity/design to make destinations and low-carbon travel modes accessible; both applicable for both residential and employment uses]; City of LA [Existing transit mode share (as a percent of total daily trips) (%), Lines within project site improved (<50%, >=50%)]
2	Increase access to common goods and services, such as groceries, schools, and daycare	Similar to CAPCOA LUT-3 (Increase Diversity of Urban and Suburban Developments (Mixed Use)): 9.00% - 30.00% VMT reduction and CAPCOA LUT-4 (Increase Destination Accessibility): 6.70% - 20.00% VMT reduction	Y	Y	Y	Y	N	Y	Notes: Similar to CAPCOA LUT-3 (Increase Diversity of Urban and Suburban Developments (Mixed Use) - Applicable in urban and suburban context; negligible in rural context (unless the project is a master-planned community; appropriate for mixed-use projects) and CAPCOA LUT-4 (Applicable in urban and suburban context, negligible in rural context, appropriate for residential, retail, office, industrial, and mixed-use projects); City of San Jose [Access to Neighborhood Schools: Applicable for residential uses only]; City of San Jose [Very similar to measure 'Increase diversity of uses' - Applicable for residential and employment uses]
3	Incorporate affordable housing into the project	0.04% - 1.20%	Y	Y	Y	Y	N	Y	Notes: Similar measure is CAPCOA LUT-6 [Integrate Affordable and Below Market Rate Housing] - [Applicable in urban and suburban contexts; negligible impact in a rural context unless transit availability and proximity to jobs/services are existing characteristics; appropriate for residential and mixed-use projects]; City of San Jose [Similar to measure 'Integrate affordable and market rate housing] - Measure is applicable for residential uses only
4	Orient project towards transit, bicycle, and pedestrian facilities	1) 0.25% - 0.5% (0.25% reduction is attributed for a project oriented towards a planned corridor and 0.5% reduction is attributed for a project oriented towards an existing corridor) (as per the Sacramento Metropolitan Air Quality Management District (SMAQMD) *Recommended Guidance for Land Use Emission Reductions*), 2) 0.5% reduction in VMT per 1% increase in transit frequency and per 10% increase in transit ridership (as per the Center for Clean Air Policy (CCAP) *Transportation Emission Guidebook*)	Y	Y	Y	N	N	Y	Notes: CAPCOA LUT-7 [Orient project toward non-auto corridor]; Grouped strategy with LUT-3 (Increase Diversity of Urban and Suburban Developments (Mixed Use) ; there is no sufficient evidence that the measures results in non-negotiable trip reduction unless combined with other measures, including neighborhood design, density and diversity of development, transit accessibility and pedestrian and bicycle network improvements; the measure is applicable for urban or suburban context (may be applicable in a master-planned rural community) and is appropriate for residential, retail, office, industrial, and mixed use projects
5	Provide pedestrian network improvements	0.00% - 2.00%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA SDT-1 [applicable in urban, suburban, and rural context; appropriate for residential, retail, office, industrial, and mixed-use projects; reduction benefit only occurs if the project has both pedestrian network improvements on site and connections to the larger off-site network]. This can be considered under Technical Advisory Measure 'Improve pedestrian or bicycle networks, or transit service'; City of San Jose [Provide pedestrian network improvements for active transportation: applicable for both residential and employment uses]; City of LA [Included (within project and connecting off-site/within project only)]
6	Incorporate bike lane street design (on-site)	1% increase in share of workers commuting by bicycle (for each additional mile of bike lanes per square mile) (*Bicycle Commuting and Facilities in Major U.S. Cities: If You Build Them, Commuters Will Use Them – Another Look* by Dill and Carr (2003)); 258% - 830% increase in bicycle community (*Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions* by Cambridge Systematics); 0.075% increase in bicycle commuting with each mile of bikeway per 100,000 residents (*If You Build Them, Commuters Will Use Them; Cross-Sectional Analysis of Commuters and Bicycle Facilities* by Nelson and Allen (1997))	Y	Y	Y	Y	Y	Y	Notes: CAPCOA SDT-5 [Grouped strategy, benefits of Bike Lane Street Design are small and should be grouped with the LUT-9 (Improve Design of Development) strategy to strengthen street network characteristics and enhance multi-modal environments], the measure is applicable in urban and suburban contexts and is appropriate for residential, retail, office, industrial, and mixed-use projects. This can be considered under Technical Advisory Measure 'Improve pedestrian or bicycle networks, or transit service'; City of San Jose [Expand the reach of bike access with investment in infrastructure: applicable for both residential and employment uses]; City of LA [Provide bicycle facility along site (Yes/No)]

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Table A - Vehicle Miles Traveled Mitigation Measures for Land Development Projects

#	Mitigation Measure	VMT Reduction[1]	CAPCOA[2]	OPR TA[3]	Los Angeles Metro[4]	City of San Jose[5]	City of Los Angeles[6]	San Diego Region[7]	Notes
7	Expand transit network	0.10% – 8.20%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TST-3; Measure applicable in urban and suburban context, maybe applicable in rural context but no literature documentation available, appropriate for specific or general plans. This can be considered under Technical Advisory Measure 'Improve pedestrian or bicycle networks, or transit service'; City of San Jose [Increase transit accessibility to improve last-mile transit connections; Improve network connectivity/design to make destinations and low-carbon travel modes accessible; both applicable for both residential and employment uses]; City of LA [Existing transit mode share (as a percent of total daily trips) (%), Lines within project site improved (<50%, >=50%)]
8	Increase transit service frequency/speed	0.02% – 2.50%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TST-4, applicable in urban and suburban context, maybe applicable in rural context but no literature documentation available, appropriate for specific or general plans. This can be considered under Technical Advisory Measure 'Improve pedestrian or bicycle networks, or transit service'; City of San Jose [Similar to measure 'Subsidize public transit service upgrades']; City of LA [Reduction in headways (increase in frequency) (%)]
9	Required project contributions to transportation infrastructure improvement projects	Not Quantified: Grouped strategy (with RPT-2 and TST-1 through 7)	Y	Y	Y	Y	Y	Y	Notes: CAPCOA RPT-3 (Applicable in urban, suburban and rural context; appropriate for residential, retail, office, mixed use, and industrial projects); measure similar to some of the measures discussed above. This can be considered under Technical Advisory Measure 'Improve pedestrian or bicycle networks, or transit service.'
10	Increase destination accessibility	6.70% – 20.00%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA LUT-4 [Destination accessibility measured in terms of the number of jobs or other attractions reachable within a given travel time, which tends to be the highest at central locations and lowest at peripheral ones; the location of the project also increases the potential for pedestrians to walk and bike to these destinations and therefore reduces VMT; applicable for urban and suburban contexts, negligible impact in a rural context; appropriate for residential, retail, office, industrial, and mixed-use projects]. This can be considered under Technical Advisory Measure 'Improve pedestrian or bicycle networks, or transit service'; City of San Jose [Increase transit availability to improve last-mile transit connections; Improve network connectivity/design to make destinations and low-carbon travel modes accessible; both applicable for both residential and employment uses]; City of LA [Lines within project site improved (<50%, >=50%)]
11	Provide traffic calming measures	0.25% – 1.00%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA SDT-2 [applicable in urban, suburban, and rural contexts; appropriate for residential, retail, office, industrial, and mixed-use projects]; City of San Jose [Applicable for both residential and employment uses]; City of LA [Streets with traffic calming improvements (%), intersections with traffic calming improvements (%)]
12	Provide bike parking in non-residential projects	0.625% (as per the Center for Clean Air Policy (CCAP) *Transportation Emission Guidebook*)	Y	Y	Y	Y	Y	Y	Notes: CAPCOA SDT-6 [Bike Parking in Non-Residential projects has minimal impacts as a standalone strategy and should be grouped with the LUT-9 (Improve Design of Development) strategy to encourage bicycling by providing strengthened street network characteristics and bicycle facilities]; the measure is applicable in urban, suburban, and rural contexts; appropriate for retail, office, industrial, and mixed-use projects; City of San Jose [Provide bike parking and end-of-trip facilities such as bike parking, bicycle lockers, showers, and personal lockers (Applicable for both residential and employment uses)]; City of LA [Include bike parking/lockers, showers, & repair station (Y/N)]
13	Provide bike parking with multi-unit residential projects	Not Quantified	Y	Y	Y	Y	Y	Y	Notes: CAPCOA SDT-7 [Grouped Strategy; the benefits of Bike Parking with Multi-Unit Residential Projects have no quantified impacts and should be grouped with the LUT-9 (Improve Design of Development) strategy to encourage bicycling by providing strengthened street network characteristics and bicycle facilities. The measure is applicable in urban, suburban, or rural contexts. It is appropriate for residential projects.]; City of San Jose [Provide bike parking and end-of-trip facilities such as bike parking, bicycle lockers, showers, and personal lockers (Applicable for both residential and employment uses)]; City of LA [Include bike parking/lockers, showers, & repair station (Y/N)]

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Table A - Vehicle Miles Traveled Mitigation Measures for Land Development Projects

#	Mitigation Measure	VMT Reduction[1]	CAPCOA[2]	OPR TA[3]	Los Angeles Metro[4]	City of San Jose[5]	City of Los Angeles[6]	San Diego Region[7]	Notes
14	Limit or eliminate parking supply	5.00% - 12.50%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA PDT-1 (applicable in urban and suburban context, negligible in rural context, appropriate for residential, retail, office, industrial, and mixed-use projects); reduction can be counted only if spillover parking is controlled (via residential permits and on-street market parking); follow multi-faceted strategy including 1) elimination/reduction of minimum parking requirements, 2) creation of maximum parking requirements, and 3) provision of shared parking; City of San Jose [Decrease project parking supply at the project site to rates lower than the standard parking minimums where allowable in the San Jose Municipal Code (applicable for employment uses)]; City of LA [City code parking provision (spaces), actual parking provision (spaces)]
15	Unbundle parking costs from property costs	2.60% - 13.00%	Y	Y	Y	Y	Y	Y	Notes: CAPCOA PDT-2 (applicable in urban and suburban context, negligible in rural context, appropriate for residential, retail, office, industrial and mixed-use projects; complimentary strategies include workplace parking pricing); City of San Jose [Unbundle On-Site Parking Costs: Application for Residential Uses Only]; City of LA [Monthly cost for parking ($)]
16	Provide parking cash-out programs	0.60% – 7.70% commute VMT	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TRT-15 [Implement employee parking "cash-out"; the term “cash out” is used to describe the employer providing employees with a choice of forgoing their current subsidized/free parking for a cash payment equivalent to the cost of the parking space to the employer. The measure is applicable in urban and suburban context; it is not applicable in rural context; it is appropriate for retail, office, industrial, and mixed-use projects. Restrictions are applied only if complementary strategies are in place: a) Residential parking permits and market rate public on-street parking to prevent spill over parking; b) Unbundled parking - is not required but provides a market signal to employers to forgo paying for parking spaces and “cash-out” the employee instead. In addition, unbundling parking provides a price with which employers can utilize as a means of establishing “cash-out” prices; City of San Jose [Parking cash-out: Employment uses only]; City of LA [Parking cash-out: Employees eligible (%)]
17	Implement or provide access to a commute reduction program - Voluntary	1.00% - 6.20% commute VMT	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TRT-1: Commute Trip Reduction Program – Voluntary, is a multi-strategy program that encompasses a combination of individual measures described CAPCOA measures TRT-3 through TRT-9. It is presented as a means of preventing double-counting of reductions for individual measures that are included in this strategy. It does so by setting a maximum level of reductions that should be permitted for a combined set of strategies within a voluntary program. The main difference between a voluntary and a required program is: A) Monitoring and reporting is not required B) No established performance standards (i.e. no trip reduction requirements). The measure is applicable in urban and suburban contexts, negligible in a rural context, unless large employers exist and suite of strategies implemented are relevant in rural settings. The measure is appropriate for retail, office, industrial, and mixed-use projects; City of San Jose [Applicable for employment uses only]; City of LA [Employees and residents participating (%)]
18	Implement or provide access to Commute Trip Reduction Program – Required implementation/monitoring	4.2% – 21.0% commute VMT	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TRT-2 (Commute Trip Reduction Program is a multi-strategy program that encompasses a combination of individual measures from TRT-3 through TRT-9. It is presented as a means of preventing double-counting of reductions for individual measures that are included in this strategy. It does so by setting a maximum level of reduction that should be permitted for a combined set of strategies within a program that is contractually required of the development sponsors and managers and accompanied by a regular performance monitoring and reporting program. Check examples of Tucson, Arizona and South San Francisco, CA from CAPCOA. The measure is applicable in urban and suburban contexts; it is negligible in rural context, unless large employees exist, and suite of strategies implemented are relevant in rural settings; jurisdiction level only); City of San Jose [Employment uses only]; City of LA [Employees participating (%)]

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Table A - Vehicle Miles Traveled Mitigation Measures for Land Development Projects

#	Mitigation Measure	VMT Reduction[1]	CAPCOA[2]	OPR TA[3]	Los Angeles Metro[4]	City of San Jose[5]	City of Los Angeles[6]	San Diego Region[7]	Notes
19	Provide ride-sharing program	1.00% – 15.00% commute VMT	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TRT-3 [Provide Ride-Sharing Programs: applicable in urban and suburban context; Negligible impact in many rural contexts, but can be effective when a large employer in a rural area draws from a workforce in an urban or suburban area, such as when a major employer moves from an urban location to a rural location; appropriate for residential, retail, office, industrial, and mixed-use projects]; City of San Jose [Ride share for employment uses only]; City of LA [Measured in terms of employees eligible (%)]
20	Implement bike-sharing program	Taking evidence from the literature, a 135-300% increase in bicycling (of which roughly 7% are shifting from vehicle travel) results in a negligible impact (around 0.03% VMT reduction)	Y	Y	N	Y	Y	Y	Notes: CAPCOA TRT-12 [This measure has minimal impacts when implemented alone. The strategy's effectiveness is heavily dependent on the location and context. Bike-sharing programs have worked well in densely populated areas (examples in Barcelona, London, Lyon, and Paris) with existing infrastructure for bicycling. Bike sharing programs should be combined with Bike Lane Street Design (SDT-5) and Improve Design of Development (LUT-9). The measure is applicable in urban and suburban-center context only; it is negligible in a rural context; appropriate for residential, retail, office, industrial, and mixed-use projects; City of San Jose [Bike share for employment and residential uses]; City of LA [bike share - within 600 feet of existing bike share station - OR -implementing new bike share station (Y/N)]
21	Provide transit passes	Similar to CAPCOA TRT-4 [Implement Subsidized or Discounted Transit Program]; for TRT-4, commute VMT reduction is 0.30% - 20.00%	Y	Y	Y	Y	Y	Y	Notes: Similar to CAPCOA TRT-4 [Implement Subsidized or Discounted Transit Program]; City of San Jose [Implement Subsidized or Discounted Transit Program]; City of LA [Employees and residents eligible (%), amount of transit subsidy per daily passenger (daily equivalent) ($)]
22	Shifting single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching or shuttle services	0.30% - 13.40% commute VMT reduction (for CAPCOA TRT-11: Provide Employer-Sponsored Vanpool/Shuttle); 7.20% - 15.80% school VMT reduction (for CAPCOA TRT-10: Implement a School Pool Program)	Y	Y	Y	Y	Y	Y	Notes: Similar to CAPCOA TRT-11 (Provide employer-sponsored vanpool/shuttle) - the measure is applicable for urban, suburban, and rural context, and is appropriate for office, industrial, and mixed-use projects; Similar measure is CAPCOA TRT-10 (Implement a School Pool Program: Applicable for urban, suburban, and rural context and appropriate for residential and mixed-use projects); City of San Jose [School carpool program - residential uses only)]; City of LA [School carpool program - level of implementation (low, medium, high); Employer sponsored vanpool or shuttle (Degree of implementation (low, medium, high), employees eligible (%), employer size (small, medium, large)]
23	Implement a school pool program	7.20% - 15.80% school VMT reduction	Y	Y	N	Y	Y	Y	Notes: CAPCOA TRT-10 [This project will create a ridesharing program for school children. Most school districts provide bussing services to public schools only. School Pool helps match parents to transport students to private schools, or to schools where students cannot walk or bike but do not meet the requirements for bussing. The measure is applicable in urban, suburban, and rural context and is appropriate for residential and mixed-use projects.]; City of San Jose [School carpool program - residential uses only)]. This measure can be considered under the Technical Advisory Measure 'Shifting single occupancy vehicle trips to carpooling or vanpooling, for example providing ride matching services.'; City of LA [School carpool program - level of implementation (low, medium, high)
24	Operate free direct shuttle service	CAPCOA TST-6 (Provide Local Shuttles): Not Quantified; 0.30% - 13.40% commute VMT reduction (for CAPCOA TRT-11: Provide Employer-Sponsored Vanpool/Shuttle)	Y	Y	N	Y	Y	Y	Notes: CAPCOA TST-6 (Provide Local Shuttles - grouped strategy with TST-5 'Provide Bike Parking Near Transit' and TST-4 'Increase Transit Service Frequency/Speed') - Applicable in urban/suburban context; appropriate for large residential, retail, office, mixed use, and industrial projects; solves the "first mile/last mile" problem; CAPCOA TRT-11 (Provide employer-sponsored vanpool/shuttle) - the measure is applicable for urban, suburban, and rural context, and is appropriate for office, industrial, and mixed-use projects. This measure can be considered under the Technical Advisory Measure 'Shifting single occupancy vehicle trips to carpooling or vanpooling, for example providing ride matching services.'; City of San Jose [Employment uses only]; City of LA [Employer sponsored vanpool or shuttle (Degree of implementation (low, medium, high), employees eligible (%), employer size (small, medium, large)]
25	Provide teleworking options	0.07% - 5.50% commute VMT	Y	Y	Y	Y	Y	Y	Notes: CAPCOA TRT-6 [Applicable in urban, rural, and suburban contexts; appropriate for retail, office, industrial, and mixed-use projects]; City of San Jose [Alternative work schedules and telecommute (employment land uses only)]; City of LA [Alternative work schedules and telecommute (employees participating (%), type of program)]
26	Subsidize public transit service upgrades	Not Quantified	Y	Y	N	Y	N	Y	Notes: Similar to CAPCOA TST-2 through TST-4; City of San Jose [Subsidize transit service through contributions to the transit provider to improve transit service to the project (e.g. frequency and number of routes); applicable for both residential and employment uses]. The measure is included under the Technical Advisory Measure 'Provide incentives or subsidies that increase the use of modes other than single-occupancy vehicle.'

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Table A - Vehicle Miles Traveled Mitigation Measures for Land Development Projects

#	Mitigation Measure		VMT Reduction[1]		CAPCOA[2]	OPR TA[3]	Los Angeles Metro[4]	City of San Jose[5]	City of Los Angeles[6]	San Diego Region[7]	Notes
27	Implement subsidized or discounted transit program		0.30% – 20.00% commute VMT		Y	Y	Y	Y	Y	Y	Notes: CAPCOA TRT-4 [Implement subsidized or discounted transit program (the measure is applicable in urban and suburban context, negligible in a rural context, appropriate for residential, retail, office, industrial, and mixed-use projects); The project will provide subsidized/discounted daily or monthly public transit passes. The project may also provide free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project. The measure is included under the Technical Advisory Measure 'Provide incentives or subsidies that increase the use of modes other than single-occupancy vehicle.'; City of San Jose [Implement Subsidized or Discounted Transit Program]; City of LA [Transit subsidies measured by employees and residents eligible (%), and amount of transit subsidy per passenger (daily equivalent) ($)]
28	Subsidize vanpool		0.30% - 13.40% commute VMT		Y	Y	N	Y	N	Y	Notes: Similar to CAPCOA TRT-11 (Provide Employer-Sponsored Vanpool/Shuttle: applicable in urban, suburban, and rural context; appropriate for office, industrial, and mixed-use projects). The measure is included under the Technical Advisory Measure 'Provide incentives or subsidies that increase the use of modes other than single-occupancy vehicle.'; City of San Jose [Applicable for employment uses only]
29	Providing on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms		22% increase in bicycle mode share (UK National Travel Survey)/2%-5% reduction in commute vehicle trips (*Transportation Demand Management Encyclopedia*)/0.625% reduction in VMT (*Center for Clean Air Policy (CCAP) Emission Guidebook*)		Y	Y	Y	Y	Y	Y	Notes: CAPCOA TRT-5 [Provide End of Trip Facilities]: End-of-trip facilities have minimal impacts when implemented alone. This strategy's effectiveness in reducing vehicle miles traveled (VMT) depends heavily on the suite of other transit, pedestrian/bicycle, and demand management measures offered. End-of trip facilities should be grouped with Commute Trip Reduction (CTR) Programs (TRT-1: Implement Commute Trip Reduction Program - Voluntary through TRT-2: Implement Commute Trip Reduction Program – Required Implementation/Monitoring) and TRT-3 (Provide Ride-Sharing Programs); City of San Jose [Similar measures include 'Provide bike parking/end of trip bike facilities', 'Implement car sharing programs']; City of LA [Include bike parking/lockers, showers, & repair station (Y/N)]
30	Provide employee transportation coordinators at employment sites		Not Quantified		Y	Y	Y	N	N	Y	Included as part of CAPCOA TRT-1 (Implement Commute Trip Reduction Program - Voluntary)
31	Provide a guaranteed ride home service to users of non-auto modes		Not Quantified		N	Y	Y	N	N	Y	
32	Locate project in an area of the region that already exhibits low VMT		10.00% - 65.00%		Y	Y	Y	N	N	Y	Notes: CAPCOA LUT-2 (Applicable in urban and suburban contexts; negligible in rural contexts; appropriate for residential, retail, office, industrial, and mixed-use projects)
33	Locate project near transit		0.50% - 24.60%		Y	Y	Y	N	N	Y	Notes: CAPCOA LUT-5 [May be grouped with CAPCOA measures LUT-3 (mixed use development), SDT-2 (traffic calmed streets with good connectivity), and PPT-1 through PPT-7 (parking management strategies); measures are applicable in urban and suburban contexts; appropriate in rural context if development site is adjacent to a commuter rail station with convenient rail service to a major employment center; appropriate for residential, retail, office, industrial, and mixed-use projects]
34	Increase project/development density		1.50% - 30.00%		Y	Y	Y	Y	N	Y	Notes: CAPCOA LUT-1 (Applicable in urban and suburban contexts only; negligible in rural context; appropriate for residential, retail, office, industrial, and mixed-use projects); City of San Jose [Applicable for both residential and employment uses]
35	Increase the mix of uses within the project or within the project's surroundings		9.00% - 30.00%		Y	Y	Y	Y	N	Y	Notes: CAPCOA LUT-3: Increase Diversity of Urban and Suburban Developments (Mixed Use) [Applicable in urban and suburban context, negligible in rural context, and appropriate for mixed-use projects]; City of San Jose [Applicable for both residential and employment uses]
36	Improve network connectivity and/or increase intersection density on the project site		Similar measure is CAPCOA LUT-9 [Improve Design of Development]: 3.0% - 21.3% reduction in VMT		Y	Y	Y	Y	N	Y	Notes: Similar measure to CAPCOA LUT-9 (Improve Design of Development); City of San Jose [Build new street connections and/or connect cul-de-sacs to provide pedestrian and bicycle access: applicable for both residential and employment uses]
37	Price workplace parking		0.10% - 19.70% commute VMT		Y	N	N	Y	Y	N	Notes: CAPCOA TRT-14 [Urban and suburban context; Negligible impact in a rural context; Appropriate for retail, office, industrial, and mixed-use projects; Reductions applied only if complementary strategies are in place: o Residential parking permits and market rate public on-street parking - to prevent spill-over parking o Unbundled parking - is not required but provides a market signal to employers to transfer over the, now explicit, cost of parking to the employees. In addition, unbundling parking provides a price with which employers can utilize as a means of establishing workplace parking prices; City of San Jose [Price On-Site Workplace Parking (for employment uses only)]; City of LA [Daily parking charge ($), Employees subject to priced parking (%)]

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#	Mitigation Measure	VMT Reduction[1]	CAPCOA[2]	OPR TA[3]	Los Angeles Metro[4]	City of San Jose[5]	City of Los Angeles[6]	San Diego Region[7]	Notes
38	Locate project near bike path/bike lane	0.625%	Y	N	Y	N	N	N	Notes: CAPCOA LUT-8 (Grouped strategy with 'Increase Destination Accessibility'; the measure is most effective when applied in combination of multiple design elements that encourage this use; strategy should be grouped with 'Increase Destination Accessibility' strategy to increase the opportunities for multi-modal travel; measure is applicable in urban or suburban context, may be applicable in a rural master planned community; appropriate for residential, retail, office, industrial, and mixed-use projects
39	Implement Commute Trip Reduction Marketing	0.80% - 4.00% commute VMT	Y	N	Y	Y	N	N	Notes: CAPCOA TRT-7 (applicable in urban and suburban context; negligible in rural context; appropriate for residential, retail, office, industrial, and mixed-use projects); City of San Jose [Employment uses only]
40	Education and encouragement - Voluntary travel behavior change program	1.00% - 6.20% commute VMT	Y	N	N	Y	Y	N	Notes: Similar to CAPCOA TRT-1 (Implement Commute Reduction Program - Voluntary); City of San Jose [For both residential and employment uses]; City of LA [Employees and residents participating (%)]
41	Education and encouragement - Promotions and marketing	0.80% - 4.00% commute VMT	Y	N	N	Y	Y	N	Notes: Similar to CAPCOA TRT-7 [Implement Commute Reduction Marketing]; City of San Jose [Similar measure might be 'Implement commute trip reduction marketing/educational campaign' (applicable for employment uses)]; City of LA [Employees and residents participating (%)]
42	Implement market price public parking (On-street)	2.80% – 5.50%	Y	N	Y	N	N	N	CAPCOA PDT-3 (applicable in urban and suburban context; negligible in rural context; appropriate for retail, office, and mixed-use projects; applicable in a specific or general plan context only, reduction can be counted only if spillover parking is controlled (via residential permits); studies conducted in downtown areas, and thus should be applied carefully if project is not in a central business/activity center
43	Create urban non-motorized zones	0.01% – 0.20% annual VMT reduction	Y	N	Y	N	N	N	Notes: CAPCOA SDT-4 [The project, if located in a CBD or major activity center, will convert a percentage of its roadway miles to transit malls, linear parks, or other nonmotorized zones. These features encourage non-motorized travel and thus a reduction in VMT. This measure is most effective when applied with multiple design elements that encourage this use. The benefits of Urban Non-Motorized Zones alone have not been shown to be significant. (considered grouped strategy with SDT-1 (provide pedestrian network improvements); this is applicable in urban context only and appropriate for residential, retail, office, industrial, and mixed-use projects]
44	Install park-and-ride lots	Two sources: 0.1% - 0.5% VMT reduction (as per 2005 Federal Highway Administration (FHWA) study) and 0.50% VMT reduction per day (as per Washington State Department of Transportation (WSDOT))	Y	N	N	N	N	N	Notes: CAPCOA RPT-4 (Applicable in suburban and rural context; appropriate for residential, retail, office, mixed use, and industrial projects); Grouped strategy with RPT-1, TRT-11, TRT-3, and TRT-1 through 6
45	Electrify loading docks and/or require idling-reduction systems	26% - 71% reduction in Truck refrigeration units (TRU) idling GHG emissions	Y	N	N	N	N	N	Notes: CAPCOA VT-1 (Measure applicability: Truck refrigeration units (TRU))
46	Utilize alternative fueled vehicles	Reduction in GHG emissions varies depending on vehicle type, year, and associated fuel economy	Y	N	N	N	N	N	Notes: CAPCOA VT-2 (Measure applicability: vehicles)
47	Utilize electric or hybrid vehicles	0.40% - 20.30% reduction in GHG emissions	Y	N	N	N	N	N	Notes: CAPCOA VT-3 (Measure applicability: vehicles)
48	Provide bike parking near transit	Not Quantified	Y	N	N	N	N	N	Notes: CAPCOA TST-5 (should be implemented with other two measures as mentioned to encourage multi-modal use in the area and provide ease of access to nearby transit for bicyclists (measure applicable in urban and suburban context; appropriate for residential, retail, office, mixed use, and industrial projects); Grouped strategy (with measures TST-3 'Expand transit network' and TST-4 'Increase transit service frequency/speed')
49	Improve design of development	3.00% - 21.30%	Y	N	N	N	N	N	Notes: CAPCOA LUT-9 (Include design elements to enhance walkability and connectivity; improved street network characteristics within a neighborhood such as street accessibility; design also measured in terms of sidewalk coverage, building setbacks, street widths, pedestrians crossings, presence of street trees, and a host of other physical variables that differentiate pedestrian-oriented environments from auto-oriented environments); measure is applicable in the urban and suburban contexts, negligible impact in rural context; appropriate for residential, retail, office, industrial, and mixed-use projects

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50	Provide electric vehicle parking	Not Quantified	Y	N	N	N	N	N	Notes: CAPCOA SDT-8 [This is a grouped strategy and the benefits of electric vehicle parking may be quantified when grouped with the use of electric vehicles and or SDT-3 (Implement a Neighborhood Electric Vehicle (NEV) Network). This measure is applicable in urban or suburban contexts and is appropriate for residential, retail, office, mixed use, and industrial projects.]
51	Dedicated land for bike trails	Not Quantified	Y	N	N	N	N	N	Notes: CAPCOA SDT-9 [Larger projects may be required to provide for, contribute to, or dedicate land for the provision of off-site bicycle trails linking the project to designated bicycle commuting routes in accordance with an adopted citywide or countywide bikeway plan. The benefits of Land Dedication for Bike Trails have not been quantified and should be grouped with the LUT-9 (Improve Design of Development) strategy to strengthen street network characteristics and improve connectivity to off-site bicycle networks. The measure is applicable in urban, suburban, or rural contexts and is appropriate for large residential, retail, office, mixed use, and industrial projects.]
52	Implement school bus program	38.00% - 63.00% school VMT reduction	Y	N	N	N	N	N	Notes: CAPCOA TRT-13 [Applicable in urban, suburban, and rural context; appropriate for residential and mixed-use projects]
53	Implement preferential parking permit program	Not Quantified	Y	N	N	N	N	N	Notes: CAPCOA TRT-8 [The project will provide preferential parking in convenient locations (such as near public transportation or building front doors) in terms of free or reduced parking fees, priority parking, or reserved parking for commuters who carpool, vanpool, ride-share or use alternatively fueled vehicles. The project will provide wide parking spaces to accommodate vanpool vehicles. The impact of preferential parking permit programs has not been quantified by the literature and is likely to have negligible impacts when implemented alone. This strategy should be grouped with Commute Trip Reduction (CTR) Programs (TRT-1 and TRT-2) and TRT-3 (Provide Ride-Sharing Programs) as a complementary strategy for encouraging non-single occupant vehicle travel. This measure is applicable in urban and suburban contexts and is appropriate for residential, retail, office, mixed use, and industrial projects.]

Notes:

VMT = Vehicle Miles Traveled; CAPCOA = California Air Pollution Control Officers Association; OPR = Office of Planning and Research; TA = Technical Advisory; HOV = High Occupancy Vehicle; HOT = High Occupancy Toll; ITS = Intelligent Transportation System

CAPCOA Transportation Mitigation Categories (LU = Land Use/Location, SD = Neighborhood/Site Enhancements, PD = Parking Policy/Pricing, TR = Commute Trip Reduction Programs, TS = Transit System Improvements, RP = Road Pricing/Management; V = Vehicles)

[1] VMT reduction numbers obtained from *Quantifying Greenhouse Gas Mitigation Measures* published by the California Air Pollution Control Officers Association in August 2010.

[2] *Quantifying Greenhouse Gas Mitigation Measures* published by the California Air Pollution Control Officers Association in August 2010.

[3] *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by the Governor's Office of Planning and Research State of California in December 2018.

[4] *Analysis of VMT Mitigation Measures Pursuant to SB 743* prepared by Iteris, Inc. in February 2018.

[5] *City of San Jose Transportation Analysis Handbook* (dated April 2018).

[6] *City of Los Angeles VMT Calculator Version 1.2*

[7] *Guidelines for Transportation Impact Studies in the San Diego Region* developed by San Diego Section of the Institute of Transportation Engineers (ITE) and the San Diego Traffic Engineers Council (SANTEC) in January 2019.

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