HEXAGON TRANSPORTATION CONSULTANTS, INC.

Berryessa Plaza Commercial Center

Transportation Analysis

Prepared for:

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Executive Summary

This report presents the results of a Transportation Analysis (TA) for the proposed Berryessa Plaza Commercial Center project located at the southeast corner of the Berryessa Road and Jackson Avenue intersection (2002 Berryessa Road) in San Jose, California. The project site, which includes Assessor Parcel Numbers (APN) 254-80-021, 022, and 023, is bounded by Jackson Avenue to the west, Berryessa Road to the north, Pepper Road to the east, and residences/Pepper Way to the south. The project proposes to construct a 47,000 square-foot commercial center with local-serving retail land uses on a currently vacant 2.76-acre lot. Two commercial buildings would be constructed along the Berryessa Road site frontage with a 200-space surface parking lot adjacent to the proposed buildings. Vehicular access to the site would be provided via a right-turn only driveway on Jackson Avenue and a right-turn only driveway on Berryessa Road. Additionally, the project has access easements to utilize Pepper Road/Way (a private street) as an access route to Berryessa Road and Jackson Avenue.

Transportation Analysis Scope

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's *Transportation Analysis Handbook 2018*, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA). Per the City of San Jose's Transportation Analysis Policy and *Transportation Analysis Handbook 2018*, the TA report for the project consists of a CEQA vehicle-miles-traveled (VMT) analysis and a supplemental Local Transportation Analysis (LTA).

CEQA Transportation Analysis Scope

The CEQA transportation analysis for the project includes a project-level VMT impact evaluation and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

Local Transportation Analysis Scope

A local transportation analysis (LTA) supplements the VMT analysis and identifies transportation operational issues that may arise due to a development project. The LTA includes an evaluation of the effects of the project on transportation, access, circulation, and related safety elements in the proximate area of the project. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

CEQA Transportation Analysis Exemption

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determines whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project or a component of a mixed-use project meets the City's screening criteria, it is presumed that the project, or component of the project, would result in a less-than-significant transportation impact and a detailed VMT analysis is not required.

Per the City of San Jose VMT screening criteria, retail projects with 100,000 square feet of total gross floor area or less without drive-through operations are considered local-serving and do not require a detailed CEQA transportation analysis. The proposed project satisfies this criterion and therefore is not required to complete a detailed VMT analysis.

Cumulative (GP Consistency) Evaluation

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project would supplement the surrounding residential land use with local-serving retail uses
- The project would create a pedestrian-friendly environment by providing direct pedestrian connections between the project site and adjoining neighborhoods and other existing pedestrian facilities, including sidewalks and transit stops.
- The project would create a pedestrian-friendly environment within the site by providing pedestrian connections between building entrances, parking areas, and outdoor pedestrian facilities.

Therefore, based on the project description, the proposed project would be consistent with the *Envision San José 2040 General Plan*.

Local Transportation Analysis

The intersection operations analysis is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection operation is not considered a CEQA impact metric.

The LTA includes the analysis of AM and PM peak-hour traffic conditions for 5 signalized intersections, following the standards and methodology set forth by the City of San Jose.

Future Intersection Operation Conditions

The intersection operations analysis shows that the intersection of *Capitol Avenue and Berryessa Road* (study intersection #5) is projected to operate at unacceptable LOS E during the PM peak hour both background and background plus project conditions. However, based on City of San Jose guidelines, the project would not have an adverse effect on intersection operations at any of the study intersections.

Similarly, the intersection of *Capitol Avenue and Berryessa Road* is projected to continue to operate at unacceptable LOS E during the PM peak-hour under cumulative conditions. However, based on City of San Jose guidelines, the project would not have an adverse effect on intersection operations at any of the study intersections under cumulative conditions.

Freeway Segment Analysis

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP was not required.

Freeway On-Ramp Meter Analysis

The proposed project is projected to add 3 vehicles to the I-680 northbound loop on-ramp during the AM peak-hour and 7 vehicles to the I-680 southbound diagonal on-ramp during the PM peak-hour. These project trips equate to adding an average of one vehicle every 20 minutes to the northbound loop on-ramp, and one vehicle every 9 minutes to the southbound diagonal on-ramp. Since the existing I-680 freeway on-ramps at Berryessa Road are currently underutilized, the addition of project traffic to the metered on-ramps is not anticipated to cause any operational issue at the on-ramps.

Intersection Queuing Analysis

2. Jackson Avenue/Flickinger Avenue and Berryessa Road

Northbound Left-Turn

The projected 95th percentile vehicle queue for this movement currently exceeds and would continue to exceed the existing vehicle storage capacity during the AM peak-hour under background plus project conditions. The addition of project traffic to this movement is not projected to increase the vehicle queue length during the AM peak hour, therefore, the proposed project would have no effect on the projected queue storage deficiency for this movement.

The existing northbound left-turn pockets possibly could be extended by no more than 50 feet due to the back-to-back left-turn pocket at Pepper Way. Even with the additional 50 feet per lane, the northbound left-turn pockets would continue to be exceeded by 2 vehicles each during the AM peak-hour. In addition, extending the existing northbound left-turn pockets would require the removal of the existing landscape median, which includes various trees. The City has indicated that it would prefer to maintain the existing median island/landscaping and turn pocket length.

Westbound Left-Turn

The projected 95th percentile vehicle queue for this movement currently exceeds and would continue to exceed the existing vehicle storage capacity during the PM peak-hour under background plus project conditions. The addition of project traffic to this movement is projected to increase the vehicle queue length by one vehicle per lane during the PM peak-hour, exceeding the existing queue store capacity by 2 vehicles per lane.

It is possible to extend the existing westbound left-turn pockets the necessary additional 50 feet to accommodate the projected queue storage deficiency under background plus project conditions. Extending the existing westbound left-turn pockets would require the partial removal of the existing landscape median and possible removal of one tree. The City has indicated that it would prefer to maintain the existing median island/landscaping and turn pocket length.

Northbound Through/Right-Turn

The projected 95th percentile vehicle queue for this movement currently extends for approximately 1150 and 550 feet during the AM and PM peak hours, respectively, extending past Pepper Way. The addition of project traffic to this movement is not projected to increase the vehicle queue lengths during the peak

hours, therefore, the proposed project would have no effect on the projected queue storage deficiency for this movement.

Other Local Transportation Issues

The following are the findings and recommendations made based on the analysis of the proposed site access and on-site circulation, and proposed on-site parking.

Project Driveway Operations

Recommendation: It is recommended that a minimum queue storage capacity for 3 vehicles (approximately 60 feet) be provided on site at the Jackson Avenue driveway. This will provide enough queue storage space for the projected outbound queue length at this access point/driveway to store within the site without blocking access to adjacent parking stalls and drive aisles.

On-Site Circulation

Recommendation: The project must adhere to City of San Jose design guidelines and standards and work with City staff to ensure that the design of all driveways, drive aisles, and parking stalls is to the satisfaction of the City. Drive aisles on the site plan are shown to be 24 feet wide, which is less than the required 26-foot width for two-way drive aisles with 90-degree parking.

Recommendation: It is recommended that the on-site intersection formed by the Berryessa Road drive aisle and the loop drive aisle be stop controlled on all approaches of the intersection. It is also recommended that stop signs also be installed within the loop drive aisle at the Jackson Avenue and Pepper Road driveways, allowing inbound traffic to access the site unimpeded.

Bike and Pedestrian On-Site Circulation

Recommendation: Since pedestrian circulation between the adjacent neighborhood to the south and the proposed buildings would occur within the parking lot, this pedestrian walkway must be clearly visible to all vehicles within the parking area with the use of pavement markings (as shown on the site plan) and signage.

Recommendation: The proposed curb ramp along the Jackson Avenue project site frontage (shown on the site plan) should be removed since on-street parking is prohibited along this segment of Jackson Avenue. Providing a ramp from the Jackson Avenue frontage sidewalk (without the curb cuts) to the project's outdoor patio would provide adequate pedestrian access from Jackson Avenue.

Loading Space Requirements

Recommendation: The proposed loading areas should conform to City of San Jose design guidelines.

Truck On-site Circulation

Recommendation: The truck turning templates prepared by the project's architect show that fire trucks would be able to enter, circulate, and exit the site, however, they would be required to make tight turns to avoid contact with curbs and parking islands, in particularly at the project driveways. Ultimately, the City will determine if the proposed driveway and drive aisle widths would be sufficient to accommodate fire trucks on-site circulation.

Pedestrian Facilities

Recommendation: It is recommended that a crosswalk be installed along Pepper Road, providing a direct connection between the neighborhoods east of the project site and the project site. For enhanced safety, the crosswalk can include one or a combination of the following safety features: high visibility crosswalk, on-street signage, raised crosswalk, flashing beacons, among others. Since Pepper Road is

a private street, these improvements will need to be implemented by the private stakeholder(s) who have ownership of Pepper Road.

Bicycle Facilities

Recommendation: The project will be required to provide monetary contribution for an in-lieu fee to planned Class IV protected bike lanes along the Berryessa Road and Jackson Road project frontages per the San Jose Better Bike Plan 2025 ($144 per LF).

Potential Cut-Through Traffic

Recommendation: In order to avoid potential cut-through traffic along Sundrop Lane/Agave Way, it is recommended that a physical turn restriction be implemented at the intersection of Pepper Way and Sundrop Lane. The turn restriction should prohibit westbound traffic on Pepper Way from making a left-turn into Sundrop Lane. The turn restriction could be implemented with a raised island along the Sundrop Lane leg of the intersection.

Since Pepper Road is a private street, this improvement will need to be implemented by the private stakeholder(s) who have ownership of Pepper Way.

1. Introduction

This report presents the results of a Transportation Analysis (TA) for the proposed Berryessa Plaza Commercial Center project located at 2002 Berryessa Road (APN 254-80-021,-022,-023) in San Jose, California. The project site is bounded by Jackson Avenue to the west, Berryessa Road to the north, Pepper Road to the east, and residences/Pepper Way to the south. The project proposes to construct a 47,000-square-foot commercial center with local-serving retail land uses on a currently vacant 2.76-acre lot. Two commercial buildings would be constructed along the Berryessa Road site frontage with a 200-space surface parking lot adjacent to the proposed buildings. Vehicular access to the site would be provided via a right-turn only driveway on Jackson Avenue and a right-turn only driveway on Berryessa Road. Additionally, the project has access easements to utilize Pepper Road/Way (a private street) as an access route to Berryessa Road and Jackson Avenue.

The project site location and the surrounding study area are shown on Figure 1. The project site plan is shown on Figure 2.

Scope of Work

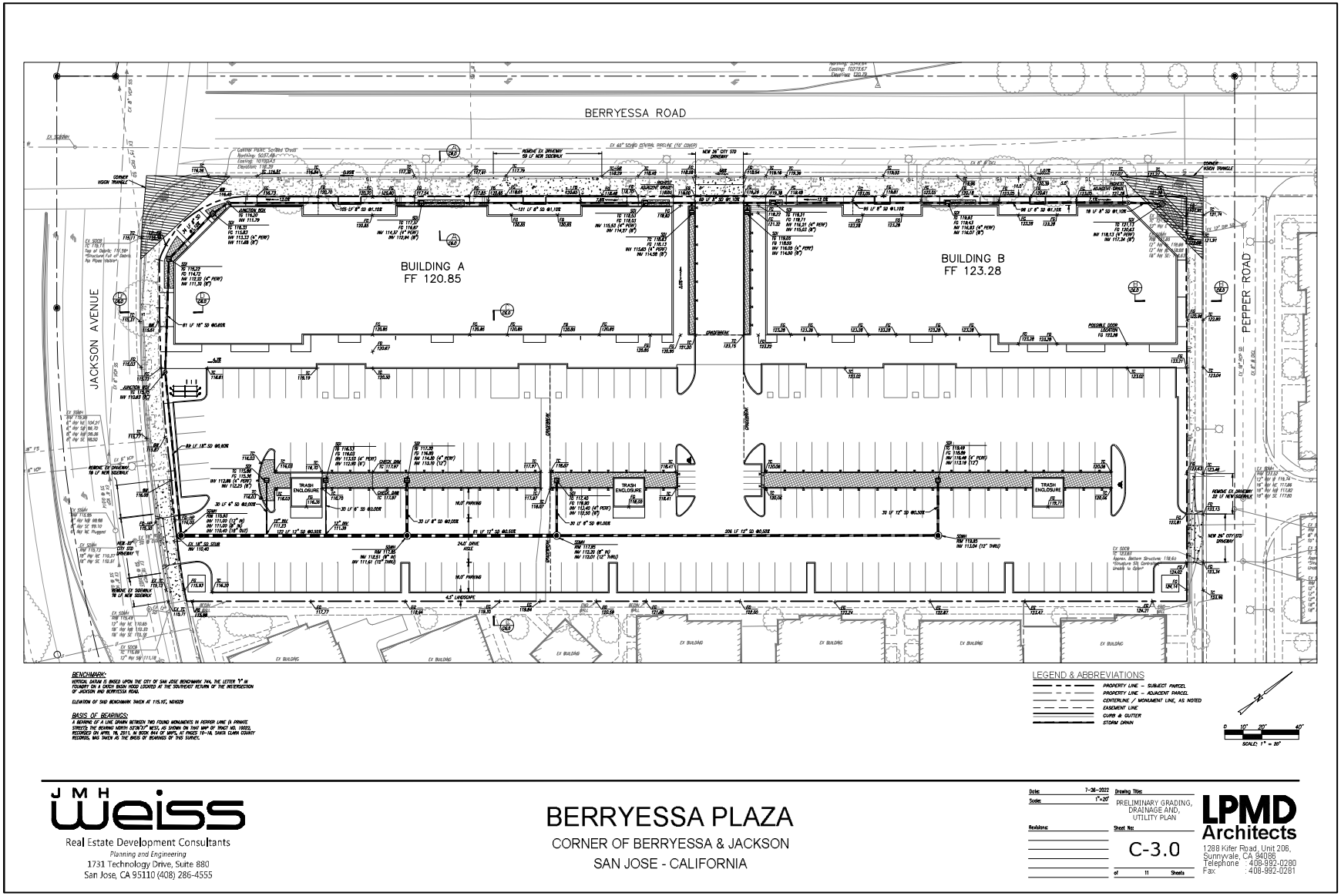
The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's Transportation Analysis Policy (Council Policy 5-1), the City of San Jose *Transportation Analysis Handbook 2018*, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA). Per the requirements of the City of San Jose's Transportation Policy and *Transportation Analysis Handbook 2018*, the TA report for the project consists of a CEQA vehicle-miles-traveled (VMT) analysis and a supplemental Local Transportation Analysis (LTA).

Transportation Policies

Historically, transportation analysis has utilized delay and congestion on the roadway system as the primary metric for the identification of traffic impacts and potential roadway improvements to relieve traffic congestion that may result due to proposed/planned growth. However, the State of California has recognized the limitations of measuring and mitigating only vehicle delay at intersections and in 2013 passed Senate Bill (SB) 743, which requires jurisdictions to stop using congestion and delay metrics, such as Level of Service (LOS), as the measurement for CEQA transportation analysis. With the adoption of SB 743 legislation, public agencies will soon be required to base the determination of transportation impacts on Vehicle Miles Traveled (VMT) rather than level of service.

Figure 1
Site Location

Figure 2
Proposed Site Plan



In adherence to SB 743, the City of San Jose in March 2018 adopted a new Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Policy 5-3) and establishes the thresholds for transportation impacts under the CEQA based on VMT instead of LOS. The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. The new transportation policy aligns with the currently adopted General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and supporting service land uses to internalize trips and reduce VMT. All new development projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1.

The circulation Element of the *Envision San José 2040 General Plan* includes a set of balanced, long-range, multi-modal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). These transportation goals and policies are intended to improve multi-modal accessibility to all land uses and create a city where people are less reliant on driving to meet their daily needs. The Envision San Jose 2040 General Plan contains the following policies to encourage the use of non-automobile transportation modes to minimize vehicle trip generation and reduce VMT:

- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to improvement of biking, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);
- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities (TR-3.3);
- Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use (TR-8.4);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Villages and Corridors and other growth areas (TR-8.6);
- Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments (TR-8.7);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3);
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between

new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1);

- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

US-101/Oakland/Mabury Transportation Development Policy

The project site is located within the US-101/Oakland/Mabury Area Development Policy (ADP) area for which a Transportation Development Policy ("TDP") exists. The US-101/Oakland/Mabury TDP provides for additional capacity in the immediate area of the US-101/Oakland and US-101/Mabury interchanges. The TDP is intended to achieve the following goals:

1. Management of traffic congestion generated by near-term new development in the vicinity of theUS-101/Oakland Road interchange
2. Promotion of General Plan goals for economic development and housing; and
3. Improvement of the US-101/Oakland Road interchange and construction of the new US-101/Mabury Road interchange to accommodate new development

The US-101/Oakland interchange serves as the primary access point to regional freeway facilities in the area. As such, the Oakland Road and Commercial Street corridors that serve the US-101/Oakland interchange currently experience traffic congestion during the peak commute hours. The US-101/Oakland interchange and Oakland Road/Commercial Street intersections are currently and projected to continue to operate below the City's standard Level of Service standards. The TDP identified existing operations and the required improvements for future development along the US-101/Oakland Road and US-101/Mabury Road corridors. A key element of the TDP was the establishment of a traffic impact fee (TIF) program on new development in the area to fund the identified transportation network improvements.

CEQA Transportation Analysis Scope

The CEQA transportation analysis for the project consists of a project-level VMT impact analysis using the City's VMT tool and a cumulative evaluation that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for development projects. For non-residential or non-office projects, very large projects, or projects that can potentially shift travel patterns, the City's Travel Demand Forecasting (TDF) model can be used to determine project VMT.

The City of San Jose's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. The City's VMT methodology includes screening criteria that are used to identify types, characteristics, and/or locations of projects that would not exceed the CEQA thresholds of significance. If a project or a component of a mixed-use project meets the screening criteria, it is then presumed that the project or the component would result in a less-than-significant VMT impact and a VMT analysis is not required. Per the City of San Jose VMT screening criteria, retail projects with 100,000 s.f. of total gross floor area or less without drive-through operations are considered local-serving and would be screened out of conducting a VMT analysis. The proposed project satisfies this criterion and is not required to complete a detailed VMT analysis.

Local Transportation Analysis Scope

A local transportation analysis (LTA) supplements the CEQA VMT analysis and identifies transportation and traffic operational issues that may arise due to a development project. The LTA includes an evaluation of the effects of the project on transportation, access, circulation, and related safety elements in the proximate area of the project.

The LTA includes the evaluation of weekday AM and PM peak hour operations at a limited number of intersections for the purpose of identifying operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour typically occurs between 7:00 AM and 9:00 AM and the PM peak hour typically occurs between 4:00 PM and 6:00 PM on a regular weekday. These are the peak commute hours during which most weekday traffic congestion occurs on the roadways in the study area.

Intersection operations conditions were evaluated for the following scenarios:

- ***Existing Conditions***. Existing AM and PM peak hour traffic volumes at were obtained from the City of San Jose, the 2018 CMP Annual Monitoring Report, and manual turning-movement counts conducted in 2019. The collection of new turning movement counts at study intersections was not possible due to the unprecedented traffic conditions caused by Covid19 and the order to shelter in place issued by Santa Clara County Department of Public Health. Therefore, counts that are more than two years old were adjusted by applying a 1 percent (%) compounded annual growth factor to estimate traffic conditions in 2020, as recommended by the City of San Jose.
- ***Background Conditions.*** Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet completed developments. The approved project traffic was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI).
- ***Background Plus Project Conditions***. Background plus project conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background traffic volumes with the project were estimated by adding to background traffic volumes the additional traffic generated by the project.
- ***Cumulative Conditions***. Cumulative conditions represent future traffic volumes on the future transportation network. Cumulative conditions include traffic growth projected to occur due to the approved development projects, the proposed project, and other proposed but not yet approved (pending) development projects in the study area.

The LTA also includes a vehicle queuing analysis, an evaluation of potential project impacts on bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Report Organization

The remainder of this report is divided into four chapters. Chapter 2 describes existing transportation system including the existing roadway network, transit service, bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including VMT analysis methodology, baseline and potential project VMT impacts, and potential cumulative transportation impacts. Chapter 4 describes the LTA including the method by which project traffic is estimated, intersection operations analysis

methodology, any adverse intersection traffic effects caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking. Chapter 5 presents the conclusions of the transportation analysis.

2. Existing Transportation Setting

This chapter describes the existing conditions of the transportation system within the study area of the project. It describes transportation facilities in the vicinity of the project site, including the roadway network, transit services, and pedestrian and bicycle facilities.

Existing Roadway Network

Regional access to the project site is provided via I-680. Local access to the project site is provided via Berryessa Road, Jackson Avenue/Flickinger Avenue, King Road/Lundy Avenue, Capitol Avenue, Mabury Road, and Pepper Road/Way. These facilities are described below.

Interstate 680 is an eight-lane freeway providing regional access between San Ramon Valley and San Jose. It extends in a north-south direction from its junction with I-280 and US 101 near Downtown San Jose through the East Bay to its junction with I-80 in Fairfield. I-680 provides access to and from the project site via its full interchange with Berryessa Road.

Berryessa Road is a four to six-lane east-west arterial that runs from Piedmont Road to US 101, at which point it becomes Hedding Street. In the vicinity of the project site, Berryessa Road is a divided six-lane roadway with a posted speed limit of 40 miles per hour (mph) and sidewalks on both sides of the street. Being the northern project site boundary, Berryessa Road would provide direct access to and from the project site via a right-turn only driveway.

Jackson Avenue/Flickinger Avenue is a four-lane north-south roadway that extends from Story Road to Berryessa Road, at which point Jackson Avenue transitions into Flickinger Avenue extending past Hostetter Road and terminating just west of North Capitol Avenue. Major cross streets include Alum Rock Avenue, McKee Road, Mabury Road, Berryessa Road, and Hostetter Road. Jackson Avenue has a posted speed limit of 35 mph and sidewalks on both sides of the street. Being the western project site boundary, Jackson Avenue would provide direct access to and from the project site via a right-turn only driveway.

King Road/Lundy Avenue is a four-lane north-south arterial that extends from Capitol Expressway northward to Berryessa Road, at which point King Road transitions into Lundy Avenue. King Road/Lundy Avenue has a posted speed limit of 40 mph with sidewalks on both sides of the street.

Capitol Avenue is a north-south four to six-lane arterial that extends from Capitol Expressway to Milpitas, transitioning to Great Mall Parkway north of Montague Expressway. Capitol Avenue generally runs parallel to and east of I-680 in San Jose. The Valley Transit Authority 901 Light Rail Transit line (Santa Teresa to Alum Rock) runs along Capitol Avenue. Capitol Avenue has a posted speed limit of

40 mph and sidewalks on both sides of the street. Capitol Avenue provides access to and from the project site via Berryessa and Mabury Roads.

Mabury Road is a two-lane east-west roadway extending from US 101 eastward to east of White Road. Mabury Road transitions into Taylor Street just east of the US 101 overpass. In the vicinity of the project, Mabury Road has a posted speed limit of 40 mph and sidewalks on both sides of the street. Mabury Road provides access to and from the project site via Jackson Avenue.

Pepper Road/Way is a two-lane L-shaped private residential roadway extending from Jackson Avenue eastward/northward to Berryessa Road. It has a posted speed limit of 15 mph with sidewalks on both sides of the street. Pepper Road (north/south segment) transitions into Pepper Way (east/west segment) at the 90-degree curve on the road. A proposed project access point along Pepper Road would provide access to Jackson Avenue and Berryessa Road.

Existing Pedestrian, Bicycle and Transit Facilities

San Jose desires to provide a safe, efficient, fiscally, economically, and environmentally-sensitive transportation system that balances the need of bicyclists, pedestrians, and public transit riders with those of automobiles and trucks. The existing bicycle, pedestrian, and transit facilities in the study area are described below.

Existing Pedestrian Facilities

Pedestrian facilities near the project site consist mostly of sidewalks along the streets in the study area. Sidewalks are found along both sides of all streets near the project site including Berryessa Road, Jackson/Flickinger Avenue, and Pepper Road/Way. The adjacent neighborhood south and east of the project site includes pedestrian sidewalks/pathways that provide access to every residential unit to/from Pepper Road, Berryessa Road, and Jackson Avenue. Other pedestrian facilities in the project area include marked crosswalks at the intersection of Pepper Way and Sundrop Lane, as well as crosswalks and pedestrian push buttons along all legs of the Jackson Avenue and Berryessa Road intersection.

Overall, the existing network of sidewalks and crosswalks provides good connectivity and provides pedestrians with safe routes to the project site from the adjacent neighborhoods.

Existing Bicycle Facilities

Class I Bikeway (Bike Path). Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. The Penitencia Creek Trail is located in the project area and is a continuous multi-purpose pathway for pedestrians and bicycles that is separated from motor vehicles. It begins at the Berryessa Transit Center and extends eastward to Alum Rock Park, crossing under I-680. This path is accessible from the project site via Jackson Avenue, less than half-a-mile south of the project site. There is also a bike path that runs parallel to the Berryessa Transit Center access roadway, between Berryessa and Mabury Roads.

Class II Bikeway (Bike Lane). Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Within the vicinity of the project site, striped bike lanes are present on the following roadway segments.

- Lundy Avenue/King Road, along the entire length of the street with a discontinuity between Berryessa Road and the Penitencia Creek Trail
- Mabury Road, between US 101 and White Road
- Flickinger Avenue/Jackson Avenue, between Hostetter Road and Story Road
- Sierra Road, between Lundy Avenue and Flickinger Avenue

- Capitol Avenue, along the entire length of the street

Although most of the residential streets near the project site do not have striped bike lanes or are designated as bike routes, due to their low traffic volumes, many of them are conducive to bicycle usage. The existing bicycle facilities are shown in Figure 3.

Existing Transit Services

Existing transit services in the study area are provided by the VTA and are shown on Figure 4. These bus lines are listed in Table 1, including their terminus points, closest scheduled stop, and commute-hour headways. Bus stops are located 300-400 feet from the project site at the corner of Jackson Avenue and Berryessa Road. These bus stops are served by Local Routes 61 and 70. Local Route 61 provides service between the project site and the Berryessa Light Rail Station, located along Capitol Avenue at its intersection with Berryessa Road, approximately 0.6-mile northeast of the project site. The Berryessa Light Rail Station is served by the Orange Line, which provides service between Mountain View and Alum Rock.

Local Route 61 also provides direct service between the project site and the Berryessa Transit Center. The Berryessa Transit Center is located on the south side of Berryessa Road, between Berryessa and Mabury Roads and adjacent to the Flea Market, approximately one mile southwest of the project site. The Berryessa Transit Center provides access to BART services to Daly City (Green Line) and Richmond (Orange Line), as well as many VTA bus services. Rapid Route 500 provides direct service to Downtown San Jose and the Diridon Transit Center. Rapid Route 523 also provides direct service to Downtown San Jose before continuing to the Lockheed Martin Transit Center via De Anza College.

Figure 3
Existing Bicycle Facilities

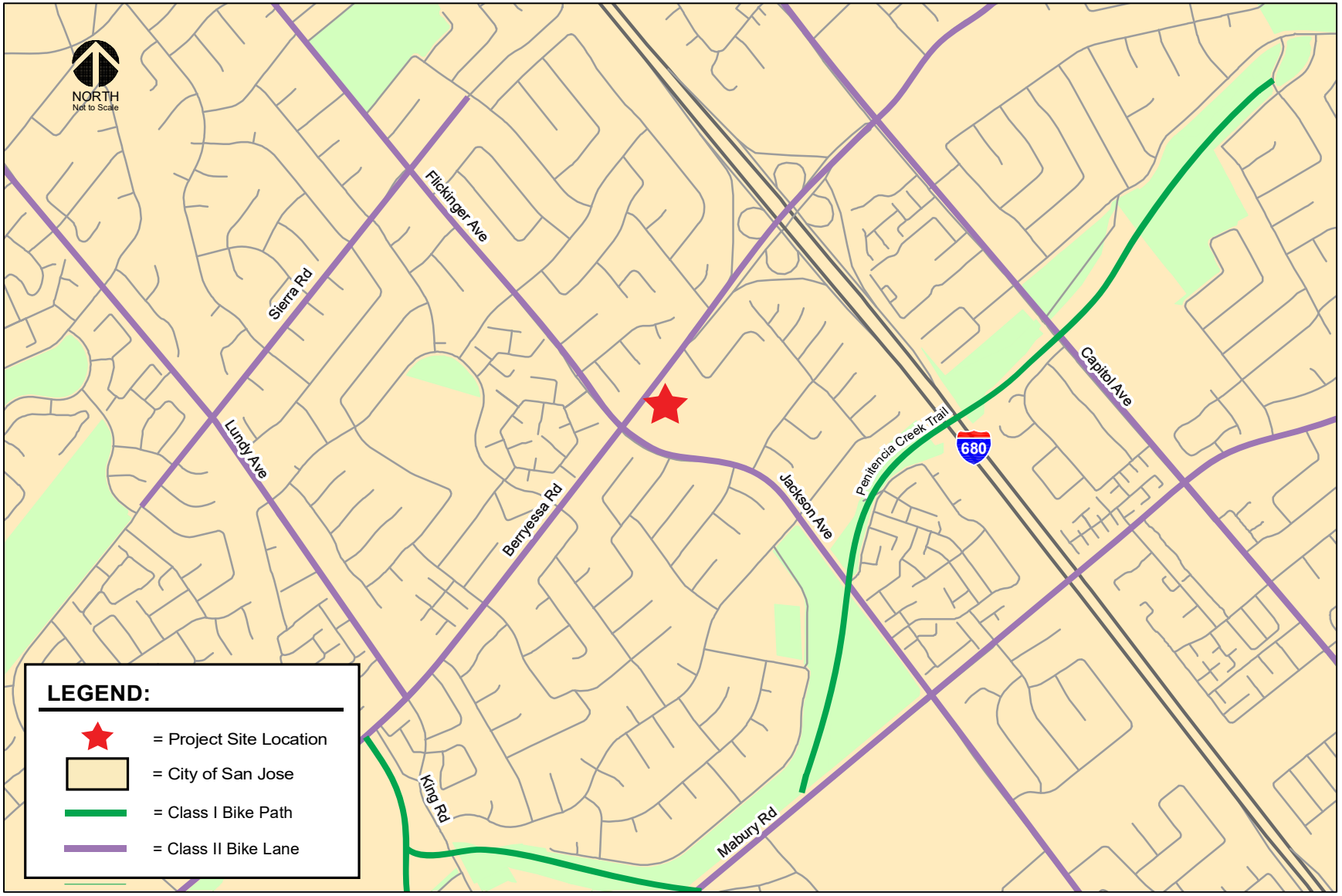


Figure 4
Existing Transit Services

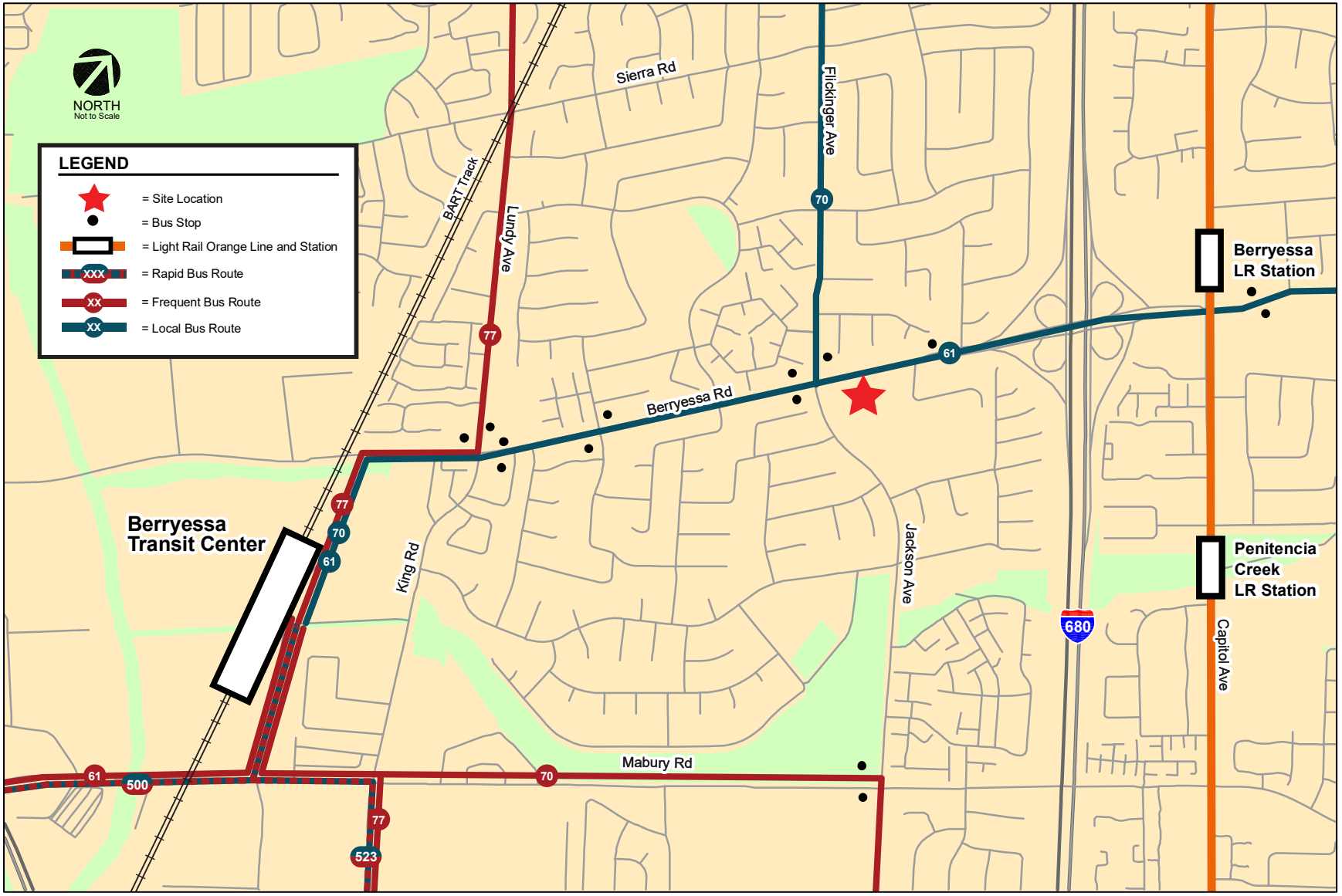


Table 1
Existing Transit Services

Route	Description	Nearest Stop to Project Site	Hours of Operations	Headways[1] (minutes)
Frequent Route 61[2]	Sierra & Piedmont to Good Samaritan Hospital	Berryessa Rd & Jackson Ave	7:15AM - 9:00PM	20 - 40
Frequent Route 70[2]	Milpitas BART to Eastridge via Jackson	Berryessa Rd & Jackson Ave	6:00AM - 9:20PM	20 - 60
Frequent Route 77	Milpitas BART to Eastridge via King	Lundy Ave & Berryessa Rd	6:40AM - 9:30PM	30
Rapid Route 500	San Jose Diridon Station to Berryessa BART	Berryessa Transit Center	4:25AM - 11:20PM	10 - 20
Rapid Route 523	Berryessa BART to Lockheed Martin via De Anza College	Berryessa Transit Center	6:45AM - 10:00PM	15 - 20
LRT Orange Line	Mountain View - Alum Rock	Capitol Ave & Berryessa Rd	5:00AM - 9:50PM	30
BART Orange Line	Richmond to Berryessa/North San Jose	Berryessa Transit Center	5:00AM - 11:00PM	30
BART Green Line	Daly City to Berryessa/North San Jose	Berryessa Transit Center	5:00AM - 9:00PM	30

Notes:
Source: VTA Service Schedule and Map (as of June 2020)
[1] Headways during peak periods.
[2] Routes 61 and 70 operate as local routes east of Berryessa Transit Center (including near the project site) and as frequent service routes west of Berryessa Transit Center.

3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis and an evaluation of consistency with the City of San Jose's General Plan.

CEQA Transportation Analysis Exemption Criteria

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determines whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project or a component of a mixed-use project meets the City's screening criteria, it is presumed that the project, or component of the project, would result in a less-than-significant transportation impact and a detailed VMT analysis is not required. The type of development projects that may meet the screening criteria include the following:

(1) small infill projects
(2) local-serving retail
(3) local-serving public facilities
(4) projects located in *Planned Growth Areas* with low VMT and *High-Quality Transit*
(5) deed-restricted affordable housing located in *Planned Growth Areas* with *High-Quality Transit*

Table 2 summarizes the screening criteria for each type of development project as identified in the City of San Jose Transportation Analysis Handbook.

Evaluation of Screening Criteria

The project consists of a 47,000-square-foot commercial center with local-serving retail and no drive-through operations.

Per the City of San Jose VMT screening criteria, retail projects with 100,000 square feet of total gross floor area or less without drive-through operations are considered local-serving and do not require a detailed CEQA transportation analysis. The proposed project satisfies this criterion and therefore is not required to complete a detailed VMT analysis.

Table 2
CEQA VMT Analysis Screening Criteria for Development Projects

Type	Screening Criteria
Small Infill Projects	• Single-family detached housing of 15 units or less; OR • Single-family attached or multi-family housing of 25 units or less; OR • Office of 10,000 square feet of gross floor area or less; OR • Industrial of 30,000 square feet of gross floor area or less
Local-Serving Retail	• 100,000 square feet of total gross floor area or less without drive-through operations
Local-Serving Public Facilities	• Local-serving public facilities
Residential/Office Projects or Components	• **Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND • **High-Quality Transit:** Located within ½ a mile of an existing major transit stop or an existing stop along a high-quality transit corridor; AND • **Low VMT:** Located in an area in which the per capita VMT is less than or equal to the CEQA significance threshold for the land use; AND • **Transit-Supporting Project Density**: o Minimum Gross Floor Area Ratio (FAR) of 0.75 for office projects or components; o Minimum of 35 units per acre for residential projects or components; o If located in a Planned Growth Area that has a maximum density below 0.75 FAR or 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND • **Parking:** o No more than the minimum number of parking spaces required; o If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; AND • **Active Transportation**: Not negatively impact transit, bike or pedestrian infrastructure.
Restricted Affordable Residential Projects or Components	• **Affordability:** 100% restricted affordable units, excluding unrestricted manager units; affordability must extend for a minimum of 55 years for rental homes or 45 years for for-sale homes; AND • **Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; AND • **High Quality Transit:** Located within ½ a mile of an existing major transit stop or an existing stop along a high quality transit corridor; AND • **Transit-Supportive Project Density**: o Minimum of 35 units per acre for residential projects or components; o If located in a Planned Growth Area that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; AND • **Transportation Demand Management (TDM):** If located in an area in which the per capita VMT is higher than the CEQA significance threshold, a robust TDM plan must be included; AND • **Parking:** o No more than the minimum number of parking spaces required; o If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; AND • **Active Transportation:** Not negatively impact transit, bike or pedestrian infrastructure.

Source: City of San José Transportation Analysis Handbook, April 2018.

Similar Land Uses in the Project Vicinity

The proposed retail project would be a neighborhood shopping center serving the local area surrounding the site. Figure 5 shows the location of other similar retail centers within a 1-mile radius of the project site. There are three similar facilities located within a 1-mile radius of the project site, and an additional five similar facilities located just outside of the 1-mile radius. When looking at a larger area, numerous similar facilities are located all over town, serving the surrounding neighborhoods. The numerous existing facilities demonstrate that patrons of the proposed and existing neighborhood shopping centers do not need to travel more than 1 mile to access one of these facilities, and therefore, it is expected that the majority of trips generated by the proposed project would originate and be destined for areas in the immediate area of the project site. Therefore, it is expected that most of the trips to and from the site would consist of existing trips currently accessing other local retail that, with implementation of the proposed project, would divert to the proposed project, resulting in a shortened existing trip.

Cumulative (GP Consistency) Evaluation

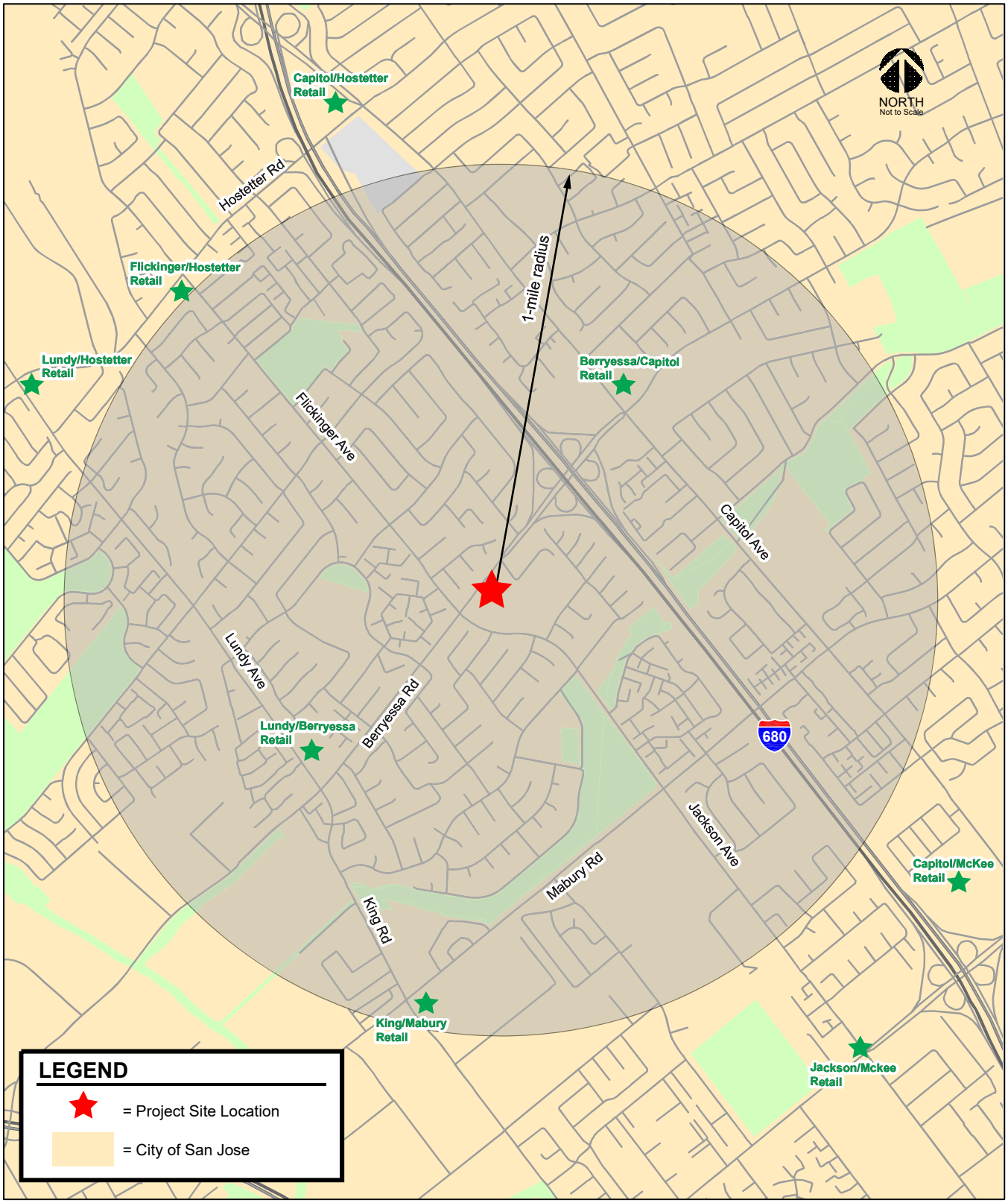
Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project would supplement the surrounding residential land use with local-serving retail uses
- The project would create a pedestrian-friendly environment by providing direct pedestrian connections between the project site and adjoining neighborhoods and other existing pedestrian facilities, including sidewalks and transit stops.
- The project would create a pedestrian-friendly environment within the site by providing pedestrian connections between building entrances, parking areas, and outdoor pedestrian facilities.

Therefore, based on the project description, the proposed project would be consistent with the *Envision San José 2040 General Plan*. Thus, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

Figure 5
Similar Land Uses in the Project Vicinity



4.
Local Transportation Analysis

This chapter describes the local transportation analysis including the method by which project traffic is estimated, intersection operations analysis for existing, background and background plus project, any adverse effects on study intersections caused by the project, intersection vehicle queuing analysis, freeway segment capacity, freeway ramp evaluation, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking.

Project Description

The project proposes to construct a 47,000-square-foot commercial center with local-serving retail land uses on a currently vacant 2.76-acre lot, located at 2002 Berryessa Road on the southeast corner of the Berryessa Road and Jackson Avenue intersection (APN 254-80-021, 022, and 023). Two commercial buildings would be constructed along the Berryessa Road site frontage: Building A consisting of a two-story building and Building B consisting of a single-story building. Parking would be provided within a 200-space surface parking lot located adjacent to the proposed buildings. Vehicular access to the site would be provided via a right-turn only driveway on Jackson Avenue and a right-turn only driveway on Berryessa Road. Additionally, with access easement over Pepper Road/Way (a private street that extends between Jackson Avenue and Berryessa Road), the project also would provide full-access to/from the site via a driveway on Pepper Road. The project site plan is shown on Figure 2, Chapter 1.

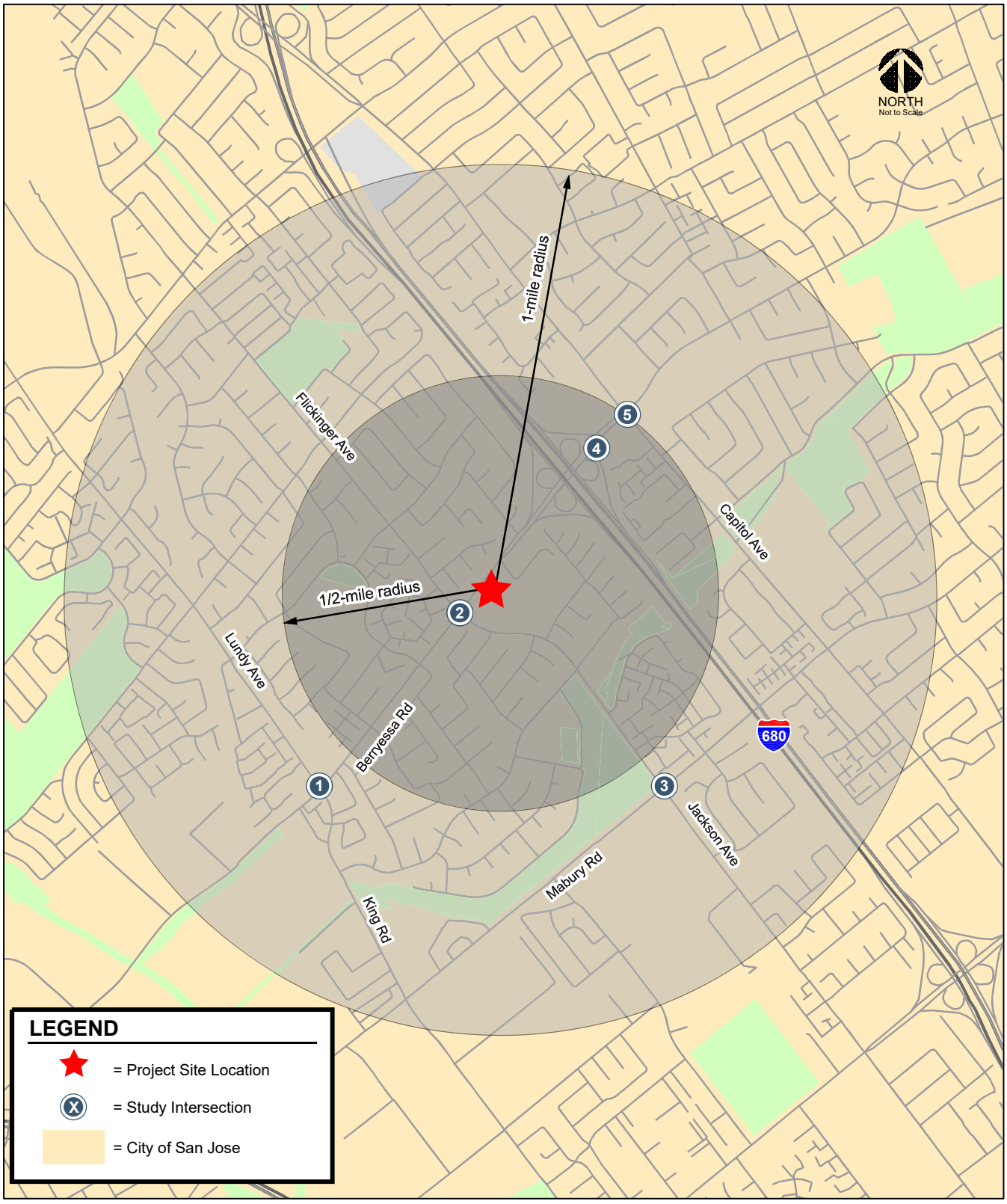
Study Intersections

The study includes an analysis of AM and PM peak-hour traffic conditions for five signalized intersections within the City of San Jose. Intersections were selected for study if the project is expected to add 10 vehicle trips per hour per lane to an intersection that meets one of the following criteria as outlined in the *Transportation Analysis Handbook.*

- Within a ½-mile buffer from the project's property line;
- Outside a ½-mile buffer but within a one-mile buffer from the project AND currently operating at D or worse;
- Designated Congestion Management Program (CMP) facility outside of the City's Infill Opportunity Zones;
- Outside the City limits with the potential to be affected by the project, per the transportation standards of the corresponding external jurisdiction;
- With the potential to be affected by the project, per engineering judgment of Public Works.

The following study intersections are located between a one-half mile and one-mile radii from the project site and were selected based on the above criteria (see Figure 6).

Figure 6
½-Mile and 1-Mile Radii from Project Site and Study Intersections



1. Lundy Avenue and Berryessa Road * (IOZ)
2. Flickinger Avenue/Jackson Avenue and Berryessa Road
3. Jackson Avenue and Mabury Road
4. I-680 Northbound Off-Ramp and Berryessa Road
5. Capitol Avenue and Berryessa Road

*Denotes CMP Intersection
IOZ = Infill Opportunity Zone intersection

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel are estimated. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Proposed Project Trips

Through empirical research, data have been collected that indicate the amount of traffic that can be expected to be generated by common land uses. Project trip generation was estimated by applying to the size and uses of the proposed development the appropriate trip generation rates. The average trip generation rates for Shopping Plaza (40-150k) (Land Use 821) as published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* (2021) were utilized to estimate the amount of traffic generated by the proposed project. Based on the ITE rates, the proposed project would generate a gross total of 3,173 daily vehicle trips, with 81 trips (50 inbound and 31 outbound) occurring during the AM peak hour and 244 trips (120 inbound and 124 outbound) occurring during the PM peak hour.

Trip Reductions

In accordance with San Jose's *Transportation Analysis Handbook* (November 2018, Section 4.8, "Intersection Operations Analysis"), the project is eligible for adjustments and reductions from the baseline (gross) trip generation described above. Based on the 2018 San Jose guidelines, the project qualifies for a location-based adjustment. The location-based adjustment reflects the project's vehicle mode share based on the place type in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the *San Jose VMT Evaluation Tool.* Based on the Tool, the project site is located within a designated urban area with low access to transit. Therefore, the baseline project trips were adjusted to reflect an urban low-transit mode share. Urban low-transit is characterized as an area with good accessibility, low vacancy, and middle-aged housing stock. Based on Table 6 of the City's *Transportation Analysis Handbook*, retail developments within urban low-transit areas have vehicle mode shares of 87 percent (%). Thus, a 13-percent reduction was applied to trips generated by the proposed project.

Additionally, trip generation for retail uses is typically adjusted to account for pass-by-trips. Pass-by-trips are trips that would already be on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Justification for applying the pass-by-trip reduction is founded on the observation that such retail traffic is not actually generated by the retail development, but is already part of the ambient traffic levels. Pass-by-trips are therefore excluded from the traffic projections (although pass-by traffic is accounted for at the site entrances) typically during the

PM peak-hour only. A pass-by trip reduction of 40% was applied to the proposed project, per information contained in the ITE *Trip Generation Manual, 11th Edition* (2021).

Net Project Trips

Based on the ITE trip generation rates and after applying the appropriate trip adjustments and reductions, it is estimated that the proposed project would generate a net total of 2,676 daily vehicle trips, with 70 trips (43 inbound and 27 outbound) occurring during the AM peak hour and 127 trips (62 inbound and 65 outbound) occurring during the PM peak hour.

As mentioned above, pass-by traffic is accounted for at the site driveways during the PM peak hour. With the inclusion of pass-by traffic, a total of 212 trips (104 inbound and 108 outbound) are estimated to enter and exit at the project site driveway during the PM peak hour.

The project trip generation estimates are presented in Table 3.

Trip Distribution and Trip Assignment

The trip distribution pattern for the project was developed based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The peak-hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern, with an emphasis on project driveway location. Figure 7 shows the trip distribution pattern and the net trip assignment of project traffic on the local transportation network.

Intersection Operations Methodology

This section presents the methods used to evaluate traffic operations at the study intersections. It includes descriptions of the data requirements, the analysis methodologies, the applicable level of service standards, and the criteria defining adverse effects at the study intersections.

The intersection operations analysis is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection is not considered a CEQA impact metric.

Data Requirements

The data required for the analysis were obtained from new traffic counts, the City of San Jose, the CMP, and field observations. The following data were collected from these sources:

- existing traffic volumes
- existing lane configurations
- signal timing and phasing
- approved project trips

Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 8. It is assumed in this analysis that the transportation network under background and background plus project conditions would be the same as the existing transportation network.

Table 3
Project Trip Generation Estimates

Land Use	% of Vehicle Mode Share	Reduction %	Size	Daily		AM Peak Hour						PM Peak Hour					
							Split		Trip				Split		Trip		
				Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
#821 - Shopping Plaza (40-150k) [1]			47,000 Square Feet	67.52	3,173	1.73	62%	38%	50	31	81	5.19	49%	51%	120	124	244
Location based reduction [2]	87%	13%			-412				-7	-4	-11				-16	-16	-32
40% Retail Passby [1]		*40%*			-85				0	0	0				-42	-43	-85
Total Net Project Trips					2,676				43	27	70				62	65	127

[1]Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition 2021.

[2]The project site is located within an urban low-transit area based on the City of San Jose VMT Evaluation Tool (February 28, 2019). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (November 2018). The trip reductions are based on the percent of mode share for other modes of travel beside vehicle.

Figure 7
Project Trip Distribution and Net Project Trip Assignment

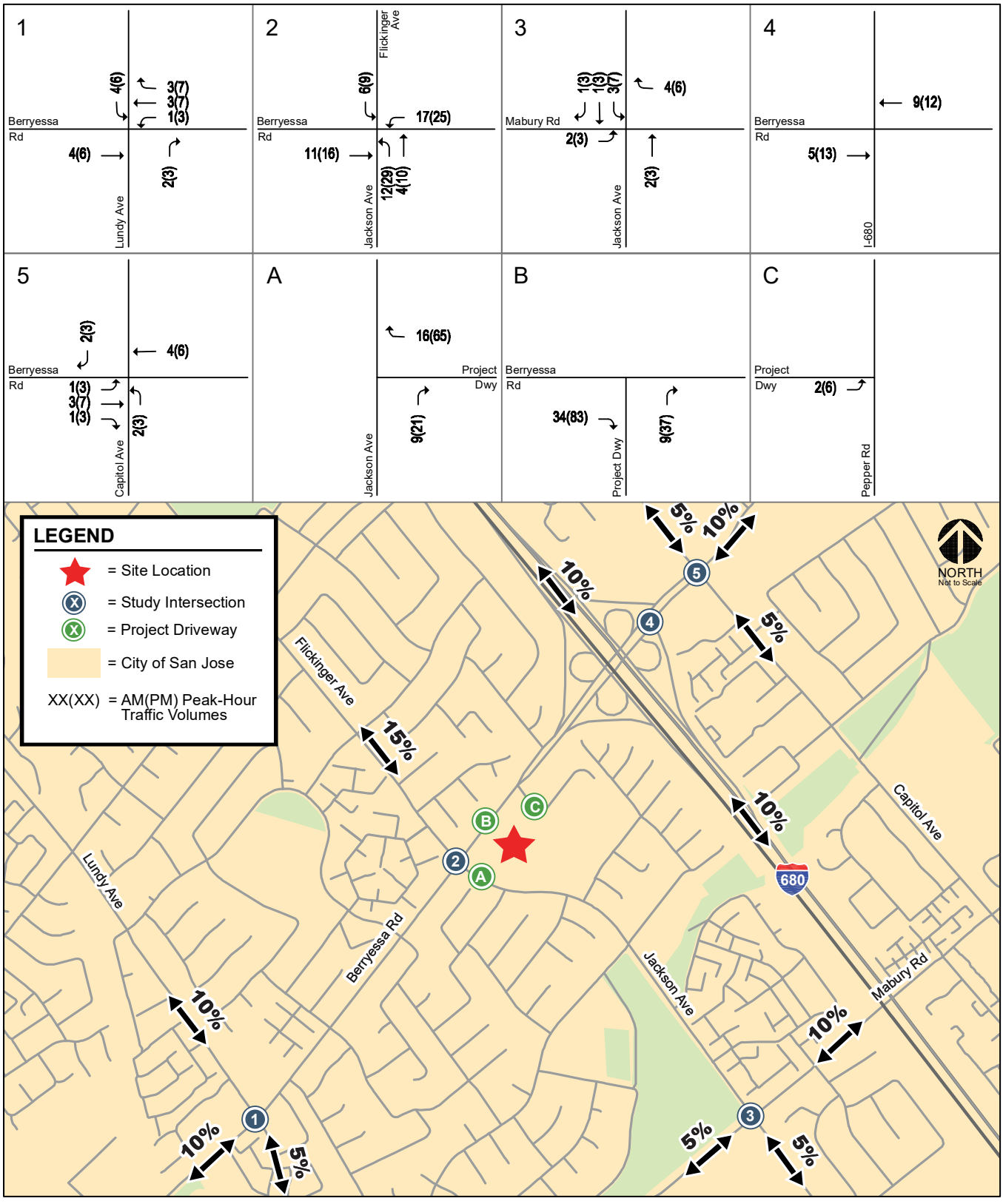
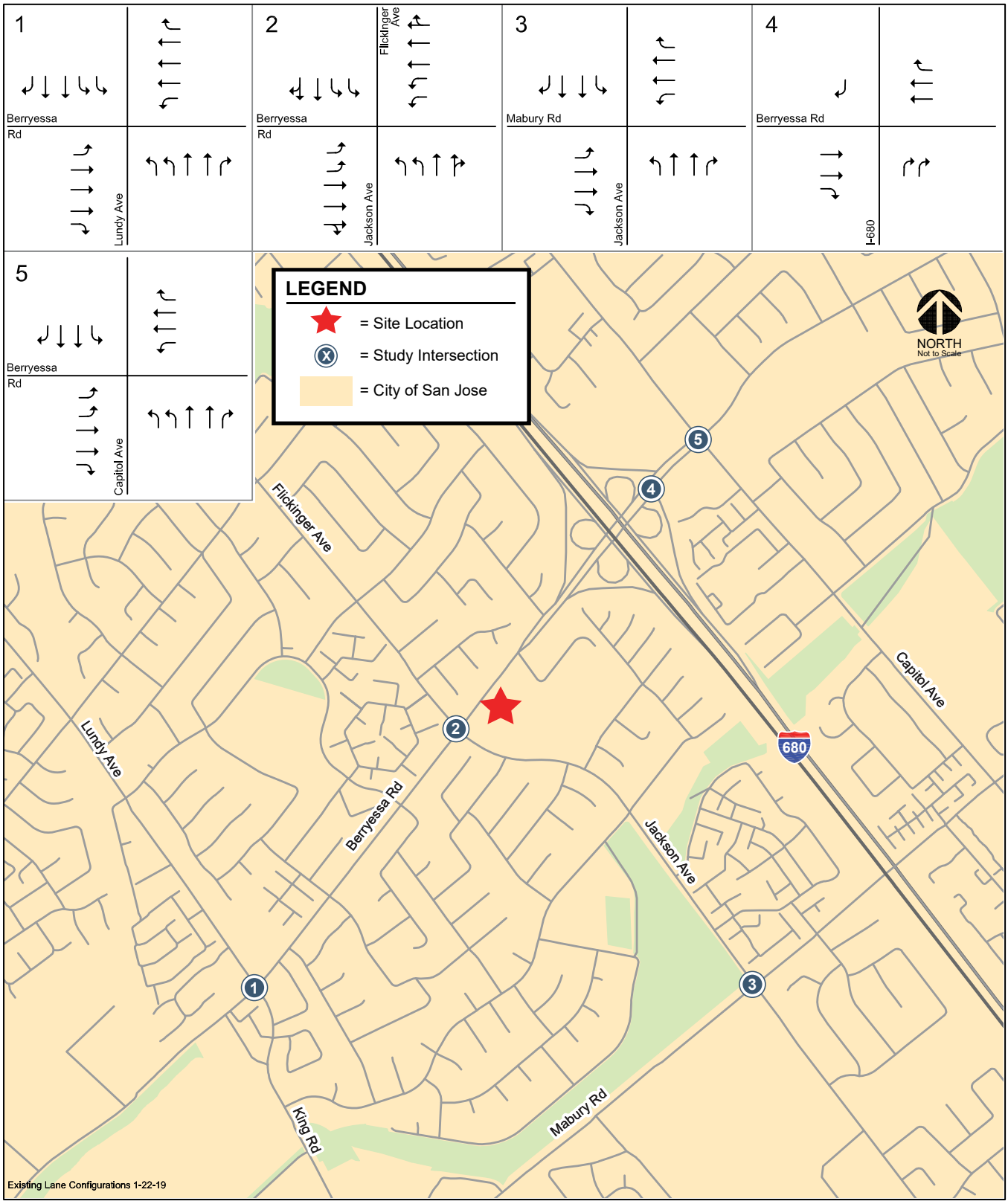


Figure 8
Existing Lane Configurations



Traffic Volumes

Existing Conditions

Existing peak hour traffic volumes at all study intersections were obtained from the VTA (PM peak-hour count at CMP intersection), previously completed transportation analyses, and supplemented with new turning-movement counts collected in January 2019. Currently, collecting new turning movement counts at intersections is not possible due to the unprecedented traffic conditions caused by the Covid19 pandemic and the order to shelter in place issued by Santa Clara County Department of Public Health. Therefore, available intersection that are more than two years old were adjusted by applying a 1% compounded annual growth factor to estimate traffic conditions in 2020, as recommended by the City of San Jose.

The existing peak-hour intersection volumes are shown on Figure 9. Intersection turning-movement counts conducted for this analysis are presented in Appendix A. Peak-hour intersection turning movement volumes for all intersections and study scenarios are tabulated in Appendix C.

Future Conditions

Background peak hour traffic volumes were estimated by adding to existing traffic volumes the estimated traffic from nearby approved but not yet completed or occupied developments. The added traffic from approved but not yet completed developments was obtained from the City of San Jose's Approved Trips Inventory (ATI) database (included in Appendix B). Background traffic volumes are shown on Figure 10. Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 11).

Cumulative peak-hour traffic volumes were calculated by adding to background volumes the estimated traffic from proposed but not yet approved (pending) development projects in the vicinity of the project area in addition to project-generated traffic. Traffic generated by pending projects was estimated based on pending project information (location, size, and type of development) and applying the process of trip generation, distribution, and assignment described earlier within this chapter. Pending project information was obtained from the City of San Jose. The cumulative traffic volumes at the study intersections are shown on Figure 12.

The traffic volumes for all components of traffic are tabulated in Appendix C.

Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

All study intersections were evaluated based on the *2000 Highway Capacity Manual* (HCM) level of service methodology using the TRAFFIX software. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. TRAFFIX is also the CMP-designated intersection level of service methodology, thus, the City of San Jose employs the CMP default values for the analysis parameters. The correlation between average control delay and level of service at signalized intersections is shown in Table 4.

Signalized study intersections are subject to the City of San Jose and CMP level of service standards. However, the study CMP intersection is located within an Infill Opportunity Zone. The CMP legislation, in recognition of the environmental benefits afforded by infill development, provides local jurisdictions options to designate Infill Opportunity Zones (IOZ) and exempt CMP facilities located within the IOZ from the provisions of CMP's intersection operations standards.

Figure 9
Existing Traffic Volumes

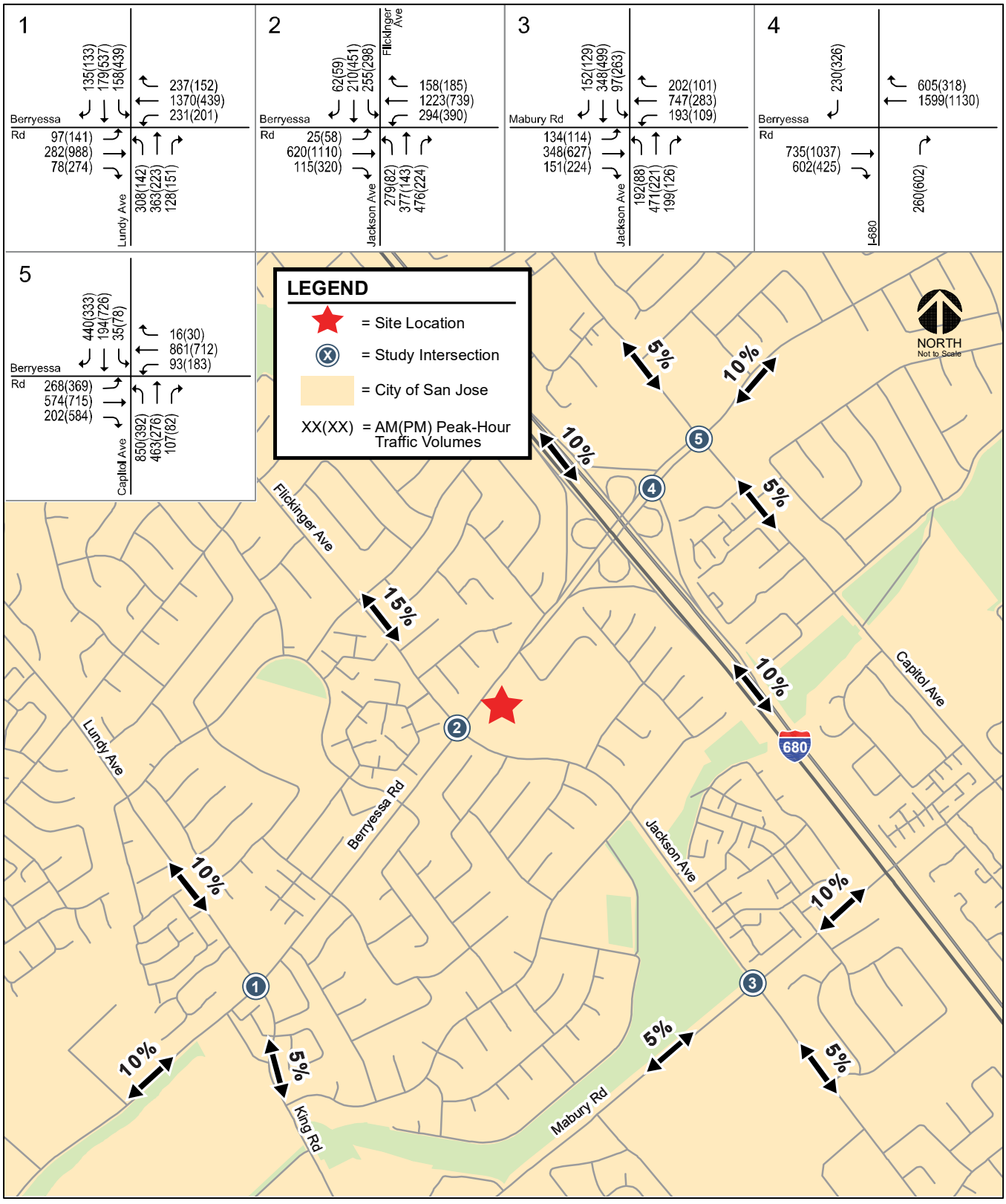


Figure 10
Background Traffic Volumes

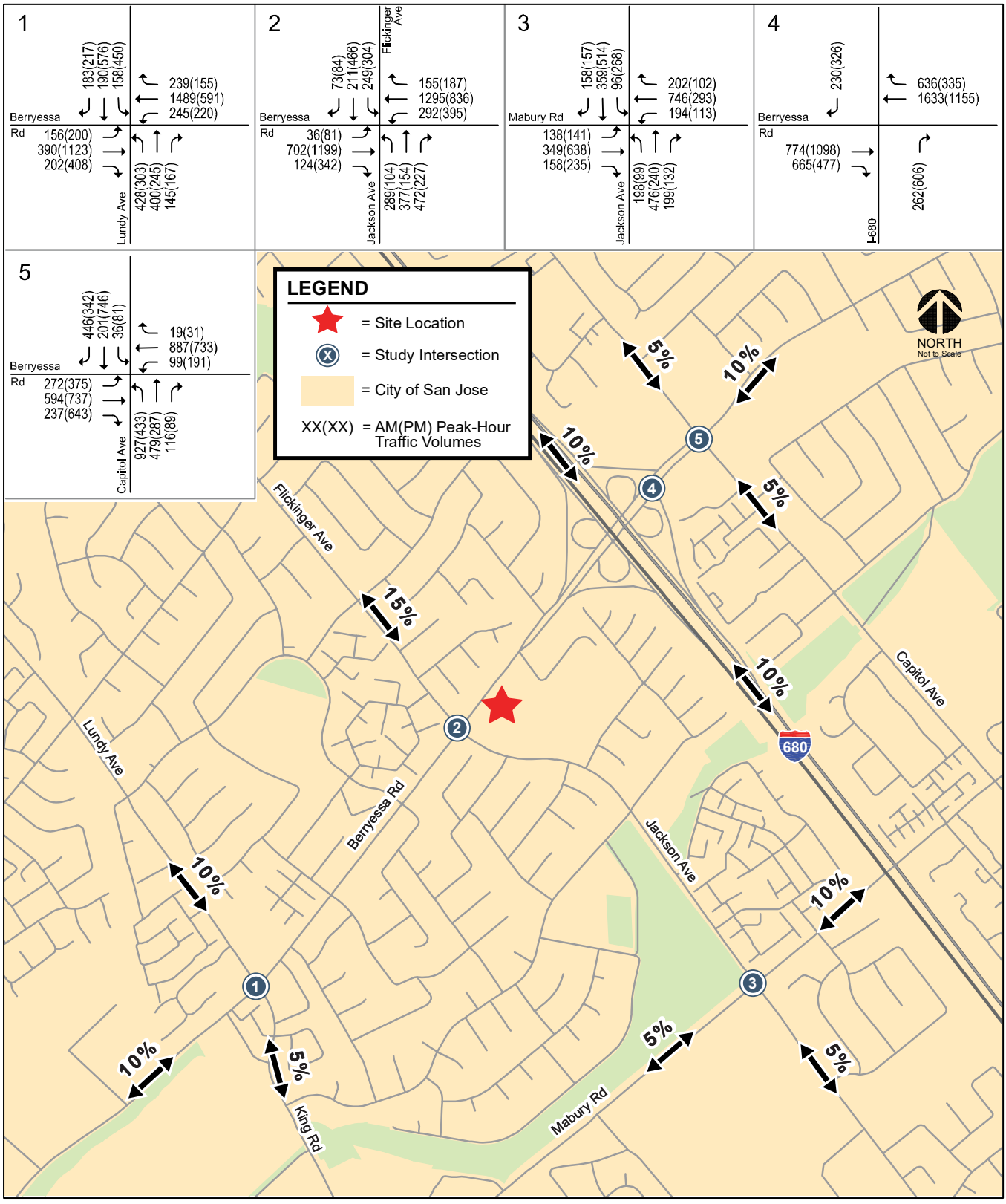


Figure 11
Background Plus Project Traffic Volumes

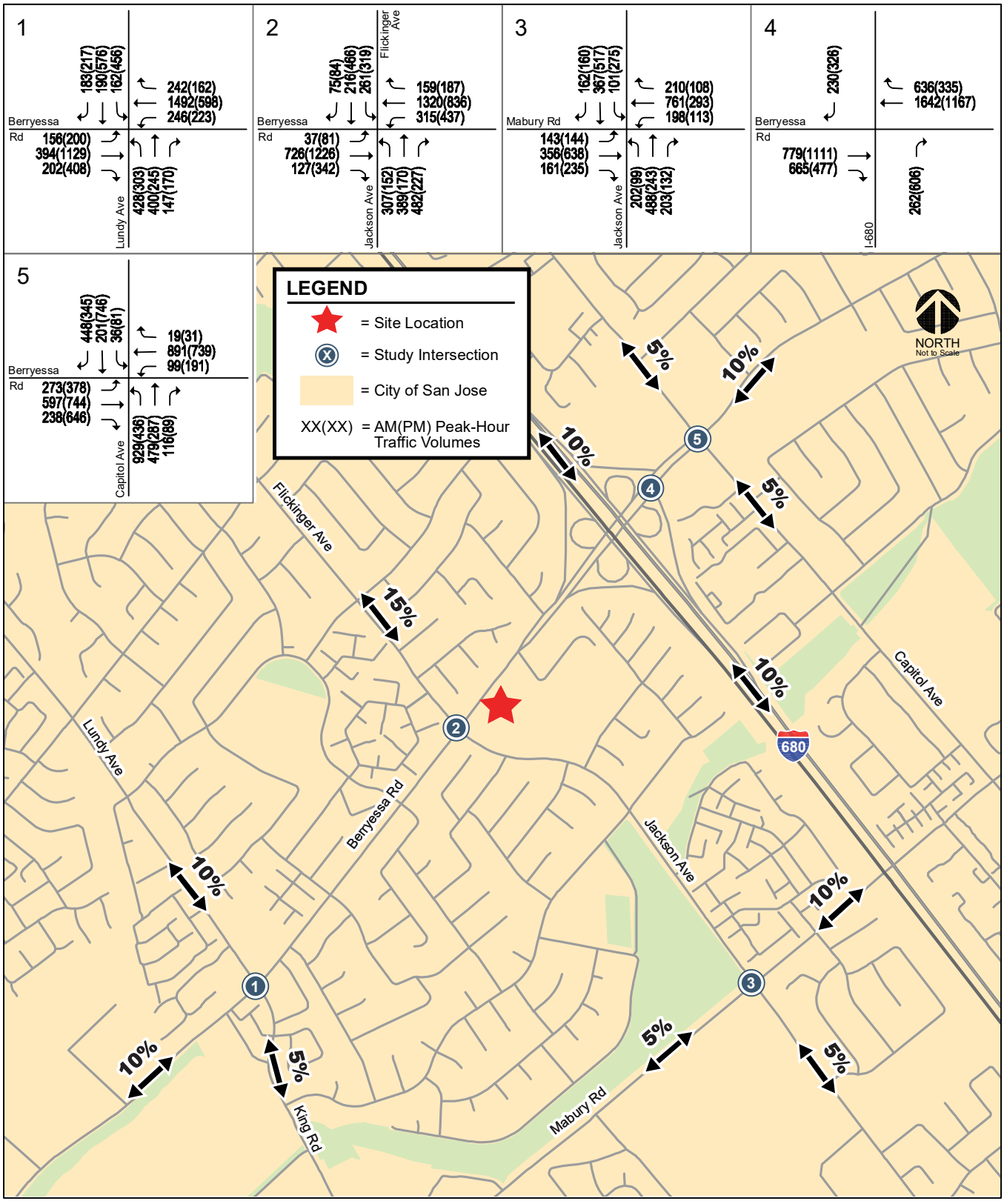


Figure 12
Cumulative Traffic Volumes

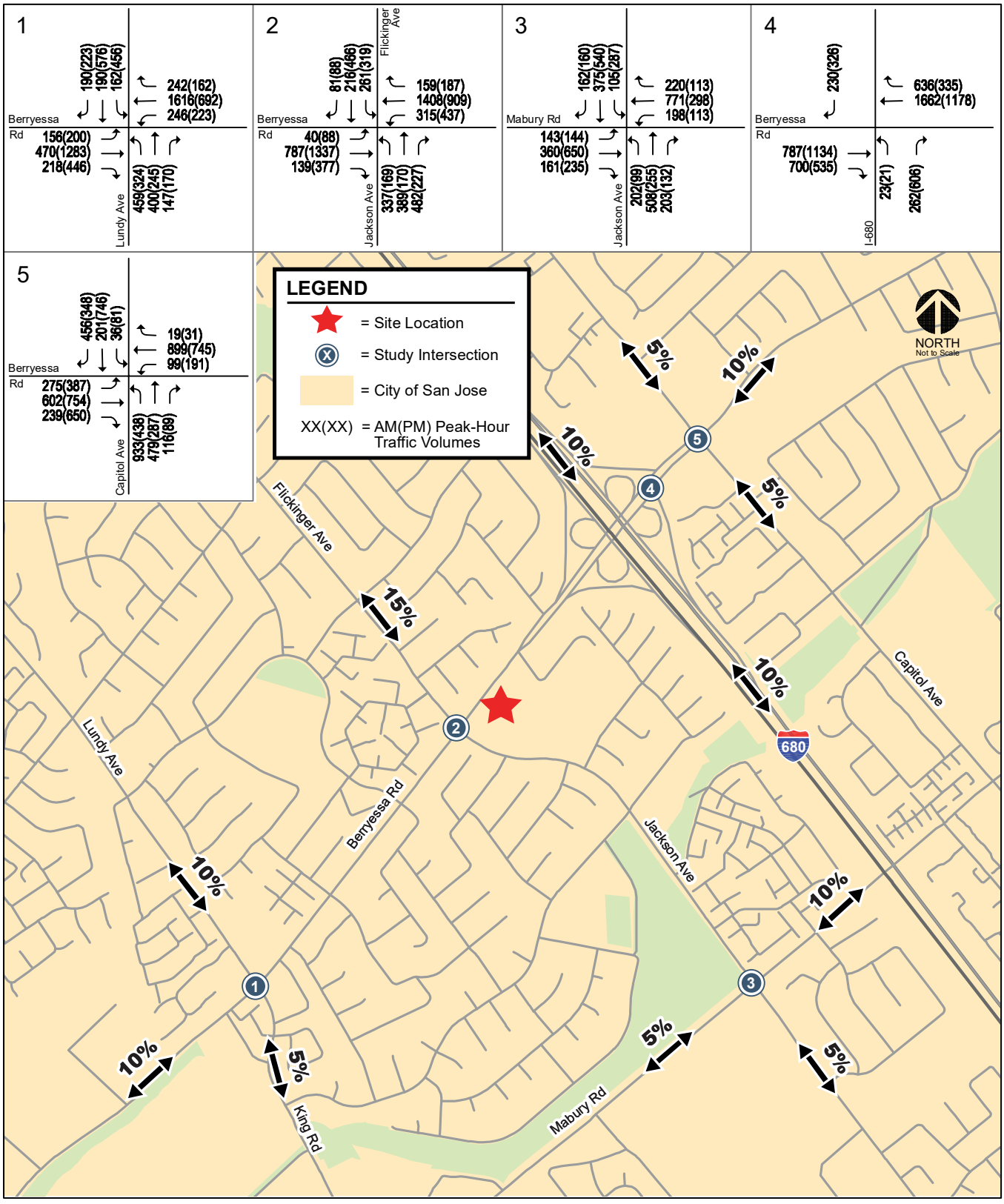


Table 4
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay per Vehicle (sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	up to 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Sources: Transportation Research Board, *2000 Highway Capacity Manual. Traffic Level of Service Analysis Guidelines*, Santa Clara County Transportation Authority Congestion Management Program, June 2003.

The City of San Jose has established LOS D as the minimum acceptable intersection operations standard for all signalized intersections unless superseded by an Area Development Policy.

City of San Jose Definition of Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook 2018*, an adverse effect on intersection operations occurs if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or better) under background conditions to an unacceptable level under background plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F) under background conditions and the addition of project trips cause both the critical-movement delay at the intersection to increase by four or more seconds *and* the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements (i.e., the change in average control delay for critical movements are negative). In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

An adverse intersection operations effect by City of San Jose standards may be addressed by implementing measures that would restore intersection level of service to background conditions or better. The City recommends prioritizing improvements related to alternative transportation modes, parking measures, and/or TDM measures. Improvements that increase vehicle capacity are secondary and must not have unacceptable effects on existing or planned transportation facilities. Unacceptable effects on existing or planned transportation facilities include the following:

- Inconsistent with the General Plan Transportation Network and Street Typologies;
- Reduction of any physical dimension of a transportation facility below the minimum design standards per the *San José Complete Streets Design Standards and Guidelines*; OR
- Substantial deterioration in the quality of existing or planned transportation facilities, including pedestrian, bicycle, and transit systems and facilities, as determined by the Director of Transportation.

Intersection Operations Analysis Results

The intersection level of service analysis is summarized in Table 5.

Existing Intersection Operation Conditions

Intersection levels of service were evaluated against applicable City of San Jose intersection operations standards. The results of the level of service analysis show that all study intersections currently operate at an acceptable LOS D or better during both the AM and PM peak hours, based on the City of San Jose intersection operations standard of LOS D.

The level of service calculation sheets are included in Appendix D.

Observed Existing Traffic Conditions

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to intersection level of service, and (2) to identify any locations where the level of service calculation does not accurately reflect level of service in the field.

Field observations revealed the following operational issues that may not be reflected in level of service calculations:

4. I-680 Northbound Off-Ramp and Berryessa Road

During the PM peak hour, the eastbound through vehicle queue on Berryessa Road at North Capitol Avenue was observed to frequently extend past the I-680 northbound off-ramp. As a result, vehicles on the I-680 northbound off-ramp (northbound right-turn movements) were blocked during the beginning of their green phase and had to wait for the eastbound queue to dissipate before proceeding.

5. North Capitol Avenue and Berryessa Road

During the AM peak hour, the northbound left-turn vehicle queue on North Capitol Avenue at Berryessa Road regularly spilled out of the dual left-turn pockets. The main reason for this occurrence is the imbalance lane usage. The majority of the northbound left-turning vehicles are bound for northbound I-680. In order to access the I-680 northbound on-ramp from northbound North Capital Avenue, drivers must be within the outside northbound left-turn lane due to the close proximity of the freeway on-ramp to the North Capitol Avenue/Berryessa Road intersection. This results in the majority of northbound left-turning traffic storing within the outside left-turn lane and the inside left-turn lane being underutilized.

Table 5
Intersection Level of Service Results

Int. #	Intersection	LOS Standard	Peak Hour	Count Date	Existing Avg. Delay	Existing LOS	Background Avg. Delay	Background LOS	Background Plus Project Avg. Delay	Background Plus Project LOS	Background Plus Project Incr. In Crit. Delay	Background Plus Project Incr. In Crit. V/C	Cumulative Avg. Delay	Cumulative LOS	Cumulative Incr. In Crit. Delay	Cumulative Incr. In Crit. V/C
1	Lundy Avenue and Berryessa Road *	None[1]	AM	01/23/19	37.2	D	40.5	D	40.5	D	0.0	0.001	40.6	D	0.0	0.035
			PM	12/11/18	41.8	D	43.6	D	43.6	D	0.1	0.003	43.6	D	0.1	0.040
2	Flickinger Avenue/Jackson Avenue and Berryessa Road	D	AM	05/09/18 [2]	46.0	D	45.9	D	46.6	D	0.7	0.016	46.6	D	0.9	0.034
			PM	05/09/18 [2]	43.3	D	43.3	D	44.6	D	1.3	0.025	44.5	D	1.1	0.053
3	Jackson Avenue and Mabury Road	D	AM	05/09/18 [2]	35.1	D	35.3	D	35.5	D	0.3	0.012	35.6	D	0.4	0.018
			PM	05/09/18 [2]	34.6	C	34.9	C	35.0	C	0.2	0.005	35.1	D	0.5	0.020
4	I-680 Northbound Off-Ramp and Berryessa Road	D	AM	01/23/19	12.3	B	12.2	B	12.1	B	0.0	0.001	12.5	B	0.3	0.001
			PM	01/23/19	16.9	B	16.9	B	16.8	B	0.0	0.004	16.6	B	-0.1	0.002
5	Capitol Avenue and Berryessa Road	D	AM	01/23/19	45.6	D	47.3	D	47.5	D	0.3	0.003	48.1	D	1.2	0.012
			PM	01/23/19	54.8	D	**55.4**	**E**	**55.5**	**E**	**0.1**	**0.002**	**55.6**	**E**	**0.1**	**0.004**

* Denotes CMP Intersection
Bold indicates unacceptable level of service.
[1]This CMP intersection is located within an Infill Opportunity Zone (IOZ) and is exempt from the provision of CMP's intersection operations standards.
[2]Traffic counts were adjusted by applying a 1% growth factor for two years (2018-2020).

Future Intersection Operation Conditions

The intersection operations analysis shows that all of the study intersections, with the exception of the intersection of *Capitol Avenue and Berryessa Road* (study intersection #5), are projected to operate at acceptable levels of service, based on the City of San Jose intersection operations standard of LOS D, under background and background plus project conditions during both the AM and PM peak hours. The intersection of *Capitol Avenue and Berryessa Road* is projected to operate at unacceptable LOS E during the PM peak hour both background and background plus project conditions. However, the addition of project traffic to the Capitol Avenue/Berryessa Road intersection would not cause the intersection's critical-movement delay to increase by four or more seconds nor the demand-to-capacity ratio (V/C) to increase by 0.01 or more during the peak hours. Therefore, based on City of San Jose guidelines, the project would not have an adverse effect on intersection operations at any of the study intersections.

Similarly, the intersection of Capitol Avenue and Berryessa Road is projected to continue to operate at unacceptable LOS E during the PM peak-hour under cumulative conditions. However, the addition of project traffic to this intersection would not cause the intersection's critical-movement delay to increase by four or more seconds nor the demand-to-capacity ratio (V/C) to increase by 0.01 or more under cumulative plus project conditions, and therefore, based on City of San Jose guidelines, the project would not have an adverse effect on intersection operations at this intersection. All other study intersections are projected to operate at acceptable levels of service under cumulative conditions.

The intersection level of service calculation sheets are included in appendix D.

US-101/Oakland Road/Mabury Road TDP Traffic Impact Fee

The project site is located within the US-101/Oakland/Mabury Area Development Policy (ADP) area for which a Transportation Development Policy ("TDP") exists. The US-101/Mabury Road/Oakland Road TDP identifies five signalized intersections that are within the sphere of influence of the US-101/Mabury Road and US-101/Oakland Road interchanges. The intersections are collectively referred to as the "Policy Interchange Intersections" and include the following intersections:

1. US 101 and Oakland Road (N)
2. US 101 and Oakland Road (S)
3. Oakland Road and Commercial Street
4. US 101 and Mabury Road (E)
5. US 101 and Mabury Road (W)

The TDP established a Traffic Impact Fee Program (TIF) based on interchange capacity using PM peak hour vehicle trips as the measurement for capacity. A fee study indicated that an equitable share for every interchange trip would be valued at approximately $47,000, which is achieved by dividing the total improvement cost of $69 million by the total PM peak hour capacity of 1,462 trips. However, City and regional funding sources will provide approximately $38 million of the total improvement cost, thus leaving a balance of $31 million to be funded by the TIF program. The TDP requires new residential and commercial developments to make a fair-share contribution toward the construction cost of $31 million. The TIF for development projects is calculated based on the number of PM peak hour trips traversing through one or more of the Policy Interchange Intersections. With an estimated 1,038 total trips allocated to new residential and commercial developments, the fair share TIF, as adopted in 2007, was estimated to be $30,000 for each interchange trip.

Estimate of TDP Fees

The proposed project is subject to the US 101/Oakland/Mabury Transportation Development Policy (TDP). Any project that would add traffic to the Policy Interchange Intersections is required to participate in the TDP Traffic Impact Fee (TIF) program.

The proposed project would consist of a local-serving retail project and is anticipated to generate most of its traffic from the adjacent neighborhoods. Since similar type of strip commercial currently exist in surrounding areas, it is expected that only a minimal number of trips to and from the project site would originate and/or be bound for areas outside of the immediate project area. Both the US 101/Oakland Road and US 101/Mabury Road interchanges are located approximately 2 miles west of the project site.

Conservatively assuming that some of the project trips would travel through the TDP intersections to access the project site from areas west and north of US 101/Berryessa Road, it is assumed in this TDP TIF assessment that no more than 10% and 20% of the project trips on Berryessa and Mabury Roads (west of the project site), respectively, would utilize the TDP intersections. This equates to approximately 1 trip added to the US 101/Oakland Road intersections and 1 trip added to the US 101/Mabury Road intersections by the proposed project during the PM peak-hour.

The TDP fees that will be required for the proposed project were estimated based on an escalated TDP fee and projected PM peak-hour trips. The 2022 TDP fee is $43,696 per new PM peak-hour vehicle trip. The estimated TDP fees, based on the current fee and PM peak-hour project trips added to the 101/Oakland/Mabury interchanges, are presented in Table 6. However, the City will ultimately determine the method by which required TDP fees for the proposed project will be determined.

Table 6
Estimate of Potential US 101/Mabury/Oakland TDP Fee

Project		Project Trips[1]	Fee Per PM Pk-Hr Trip [2]	Total Fee
Description	Size			
Local Serving Retail	47,000 s.f.	2	$43,696	$87,392

Notes:
[1] Project trips estimated to utilize TDP intersections.
[2] Source: City of San Jose.

Freeway Segment Evaluation

The City is still required to conform to the requirements of the Valley Transit Authority (VTA) which establishes a uniform program for evaluating the transportation impacts of land use decisions on the designated CMP Roadway System. The VTA's Congestion Management Program (CMP) has yet to adopt and implement guidelines and standards for the evaluation of the CMP roadway system using VMT. Therefore, the effects of the proposed project on freeway segments in the vicinity of the project area following the current methodologies as outlined in the *VTA Transportation Impact Analysis Guidelines*, was completed. However, this analysis is presented for informational purposes only.

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis

for the CMP was not required. The percentage of traffic projected to be added by the project to freeway segments in the project area is summarized in Table 7.

Table 7
Freeway Segment Capacity

#	Freeway	Segment	Direction	Peak Hour	Capacity # of Lanes[1]	Capacity (vph)	Project Trips Volume	Project Trips % of Capacity
1	I-680	from McKee Road to Berryessa Road	NB	AM	4	9,200	4	0.04
			NB	PM	4	9,200	6	0.07
2	I-680	from Berryessa Road to Hostetter Road	NB	AM	4	9,200	3	0.03
			NB	PM	4	9,200	7	0.08
3	I-680	from Hostetter Road to Berryessa Road	SB	AM	4	9,200	4	0.04
			SB	PM	4	9,200	6	0.07
4	I-680	from Berryessa Road to McKee Road	SB	AM	4	9,200	3	0.03
			SB	PM	4	9,200	7	0.08

[1] Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2018.

Freeway On-Ramp Meter Analysis

As mentioned throughout this report, the proposed project would consist of a local-serving retail project and is anticipated to generate most of its traffic from the adjacent neighborhoods. Since similar type of strip commercial currently exist in surrounding areas, it is expected that only a minimal number of trips to and from the project site would originate and/or be bound for areas outside of the immediate project area. Thus, it is very unlikely that traffic generated solely by the project would use freeways in the area. However, because the I-680 freeway is located in close proximity to the project site (less than ½ mile to the east), as a conservative approach, it was assumed in the analysis of the project that approximately 10 percent (%) of the project traffic would originate/be bound for I-680 north and south. The project is not anticipated to add traffic to any other freeways.

An analysis of the metered I-680 on-ramps that provide access to the project site was performed to identify the effect of the addition of project traffic on the queues at these on-ramps. It should be noted that the City has not adopted methodologies or impact criteria for the analysis of freeway ramps.

The project is estimated to add peak-hour trips to the following freeway on-ramps in the project vicinity:

- I-680 northbound loop on-ramp from eastbound Berryessa Road (ramp meter active during the AM peak-hour and inactive during the PM peak-hour)
- I-680 southbound diagonal on-ramp from eastbound Berryessa Road (meter inactive during the AM peak-hour and active during the PM peak-hour)

Field observations conducted on April 3rd and 4th, 2019, revealed that during the AM peak-hour, the I-680 northbound loop on-ramp from eastbound Berryessa Road had a maximum queue length of approximately 15 vehicles, extending from the ramp meter to just prior to the point in the on-ramp where the loop on-ramp joins the northbound diagonal on-ramp. During the PM peak-hour, the I-680 diagonal on-ramp from eastbound Berryessa Road had a maximum queue length of approximately 10 vehicles, extending approximately 250 feet from the ramp meter, well within the on-ramp. Therefore, both freeway on-ramps currently provide adequate queue storage capacity to accommodate the existing maximum queue lengths.

The proposed project is projected to add 3 vehicles to the I-680 northbound loop on-ramp during the AM peak-hour and 7 vehicles to the I-680 southbound diagonal on-ramp during the PM peak-hour. These project trips equate to adding an average of one vehicle every 20 minutes to the northbound loop on-ramp, and one vehicle every 9 minutes to the southbound diagonal on-ramp. Since the existing I-680 freeway on-ramps at Berryessa Road are currently underutilized, the addition of project traffic to the metered on-ramps is not anticipated to cause any operational issue at the on-ramps.

Intersection Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn (or right-turn) movements. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

P (x=n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
λ = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles for a particular left-turn movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the left-turn movement. This analysis thus provides a basis for estimating future turn pocket storage requirements at intersections.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Correspondingly, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Thus, turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded no more than 5 percent of the time for a signalized movement. Vehicle queuing at unsignalized intersections are evaluated based on the delay experienced at the specific study turn movement.

A vehicle queuing analysis was conducted for high demand turn movements at the intersection of Jackson Avenue/Flickinger Avenue and Berryessa Road. The northbound, southbound, and westbound left-turn movements and the northbound right-turn movement at this intersection were evaluated as part of the queuing analysis. The results of the analysis are described below and summarized in Table 8. The vehicular queuing analysis (Poisson probability calculations) is included in Appendix E.

Queuing Analysis Results

The results of the queuing analysis indicate that the existing storage capacities for three of the study turn movements are projected to be inadequate to accommodate the projected queue lengths under background plus project conditions. These are described below.

Table 8
Queuing Analysis Summary

Measurement	Jackson Avenue/Flickinger Avenue and Berryessa Road							
	NBL Northbound Left		SBL Southbound Left		WBL Westbound Left		NBT/R NB Through/Right	
	AM	PM	AM	PM	AM	PM	AM	PM
Existing Conditions								
Cycle Length (sec)	150	150	150	150	150	150	150	150
Lanes	2	2	2	2	2	2	1	1
Volume (vph)	279	82	255	298	294	390	853	367
Volume (vphpl)	140	41	128	149	147	195	853	367
95th %. Queue (veh/ln.)	10	4	9	11	10	13	46	22
95th %. Queue (ft./ln)[1]	250	100	225	275	250	325	1150	550
Storage (ft./ ln.)	175	175	275	275	300	300	425	425
Adequate (Y/N)	**NO**	YES	YES	YES	YES	**NO**	**NO**	**NO**
Background Conditions								
Cycle Length (sec)	150	150	150	150	150	150	150	150
Lanes	2	2	2	2	2	2	1	1
Volume (vph)	295	104	255	304	298	395	867	381
Volume (vphpl)	148	52	128	152	149	198	867	381
95th %. Queue (veh/ln.)	11	5	9	11	11	13	46	23
95th %. Queue (ft./ln)[1]	275	125	225	275	275	325	1150	575
Storage (ft./ ln.)	175	175	275	275	300	300	425	425
Adequate (Y/N)	**NO**	YES	YES	YES	YES	**NO**	**NO**	**NO**
Background Plus Project Conditions								
Cycle Length (sec)	150	150	150	150	150	150	150	150
Lanes	2	2	2	2	2	2	1	1
Volume (vph)	307	152	261	319	315	437	871	397
Volume (vphpl)	154	76	131	160	158	219	871	397
95th %. Queue (veh/ln.)	11	6	10	11	11	14	46	23
95th %. Queue (ft./ln)[1]	275	150	250	275	275	350	1150	575
Storage (ft./ ln.)	175	175	275	275	300	300	425	425
Adequate (Y/N)	**NO**	YES	YES	YES	YES	**NO**	**NO**	**NO**

Notes:
[1] Assumes 25 feet per vehicle queued

2. Jackson Avenue/Flickinger Avenue and Berryessa Road

Northbound Left-Turn Movement

The queuing analysis indicates that the projected 95th percentile vehicle queue for the northbound left-turn pockets at the *Jackson Avenue/Flickinger Avenue and Berryessa Road* intersection currently exceeds and would continue to exceed the existing vehicle storage capacity during the AM peak-hour under background and background plus project conditions.

The dual northbound left-turn pockets currently provide approximately 175 feet of vehicle storage capacity per lane (or approximately 7 vehicles per lane). The estimated 95th percentile vehicle queue for this movement is approximately 11 vehicles per lane during the AM peak hour under background conditions, exceeding the existing queue storage capacity by approximately 4 vehicles per lane. The addition of project traffic to this movement is not projected to increase the vehicle queue length during the AM peak hour, therefore, the proposed project would have no effect on the projected queue storage deficiency for this movement.

The existing northbound left-turn pockets possibly could be extended by no more than 50 feet due to the back-to-back left-turn pocket at Pepper Way. Even with the additional 50 feet per lane, the northbound left-turn pockets would continue to be exceeded by 2 vehicles each during the AM peak-hour. In addition, extending the existing northbound left-turn pockets would require the removal of the existing landscape median, which includes various trees. The City has indicated that it would prefer to maintain the existing median island/landscaping and turn pocket length.

Westbound Left-Turn Movement

The queuing analysis indicates that the projected 95th percentile vehicle queue for the westbound left-turn pockets at the *Jackson Avenue/Flickinger Avenue and Berryessa Road* intersection currently exceeds and would continue to exceed the existing vehicle storage capacity during the PM peak-hour under background and background plus project conditions.

The dual westbound left-turn pockets currently provide approximately 300 feet of vehicle storage capacity per lane (or approximately 12 vehicles per lane). The estimated 95th percentile vehicle queue for this movement is approximately 13 vehicles per lane during the PM peak-hour under background conditions, exceeding the existing queue storage capacity by 1 vehicle per lane. The addition of project traffic to this movement is projected to increase the vehicle queue length by one vehicle per lane during the PM peak-hour, exceeding the existing queue store capacity by 2 vehicles per lane.

It is possible to extend the existing westbound left-turn pockets the necessary additional 50 feet to accommodate the projected queue storage deficiency under background plus project conditions. Extending the existing westbound left-turn pockets would require the partial removal of the existing landscape median and possible removal of one tree. The City has indicated that it would prefer to maintain the existing median island/landscaping and turn pocket length.

Northbound Through/Right-Turn Movement

The queuing analysis indicates that the projected 95th percentile vehicle queue for the northbound through/right-turn lane at the *Jackson Avenue/Flickinger Avenue and Berryessa Road* intersection currently extends for approximately 1150 and 550 feet during the AM and PM peak hours, respectively. Since Pepper Way is located approximately 425 feet south of the Jackson Avenue/Flickinger Avenue and Berryessa Road intersection, the existing northbound queue length extends past Pepper Way.

The addition of project traffic to this movement is not projected to increase the vehicle queue lengths during the peak hours, therefore, the proposed project would have no effect on the projected queue storage deficiency for this movement.

It also should be noted that the vehicle queue for the northbound through/right-turn movement would extend past the proposed Jackson Avenue driveway under existing conditions and would continue to do so under background and project conditions. The effects of the existing queue along Jackson Avenue on the operations of the proposed driveway are discussed in the following section.

Site Access and On-Site Circulation

The evaluation of site access and circulation is based on the July 26, 2022 site plan prepared by LPMD Architects. Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles. The project site plan (first street level) is shown on Figure 13.

Project Driveway Design

Vehicular access to the site would be provided via three driveways – a right-turn only driveway on Jackson Avenue, a right-turn only driveway on Berryessa Road, and a full-access access point/driveway on Pepper Road. It should be noted that usage of Pepper Road/Way (a private street) as a vehicle access route to Berryessa Road and Jackson Avenue would be allowed via an access easement.

The Jackson Avenue driveway would be located approximately 160 feet south of Berryessa Road, the Berryessa Road driveway would be located approximately 300 east of Jackson Avenue, and the Pepper Road driveway would be located approximately 160 feet south of Berryessa Road. All driveways would provide access to the proposed surface parking lot and are shown on the site plan to be 26 feet wide.

City design guidelines recommend new development driveways along arterial and collector roadways to be located a minimum of 150 feet, measured at curbline, away from any signalized intersection, and commercial driveways to be a minimum of 16 feet and a maximum of 32 feet wide. The proposed driveway locations and widths would satisfy the City design guidelines.

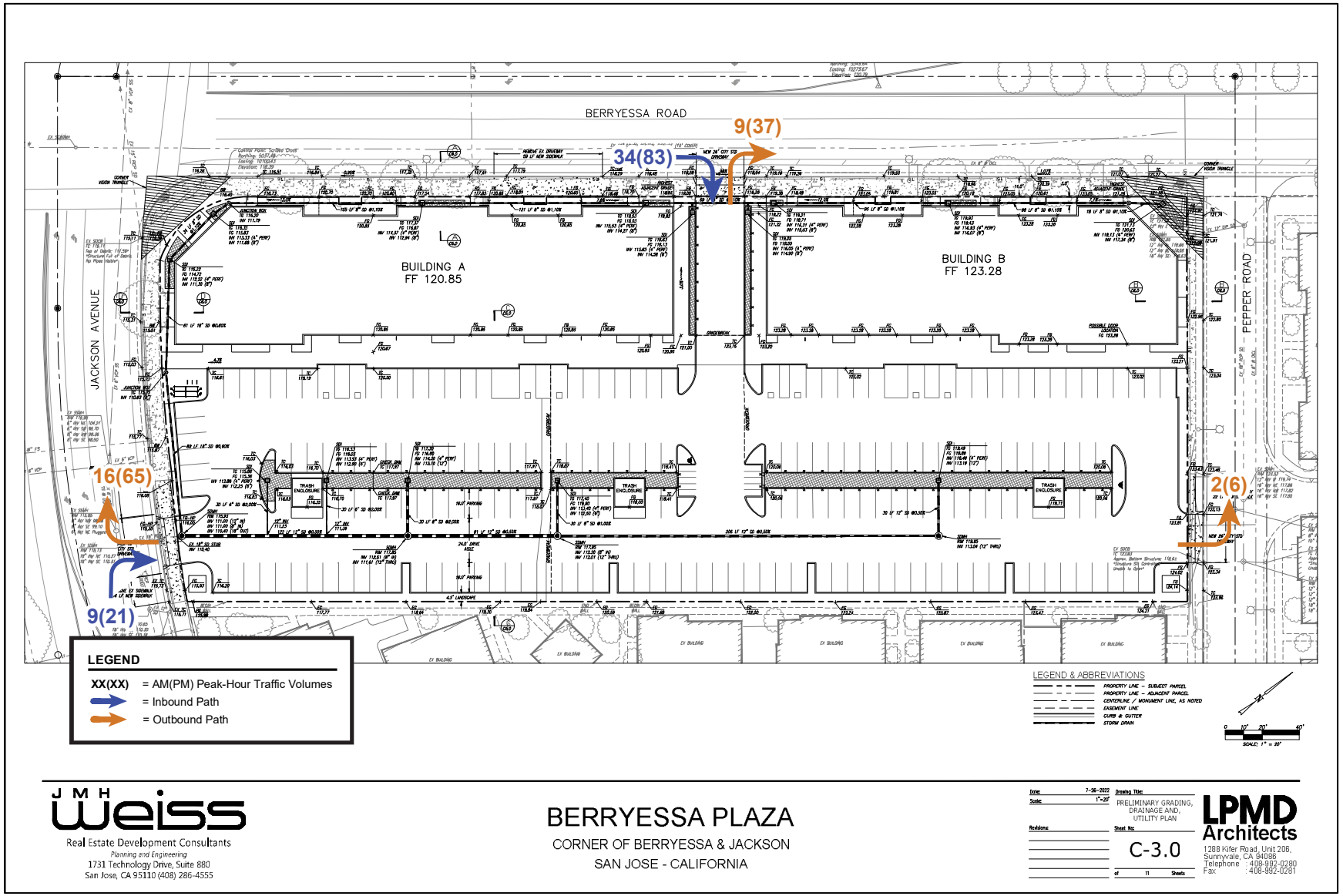
Sight Distance

Adequate sight distance must be provided at the project driveways. The project access points should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on the road. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site.

Adequate sight distance (sight distance triangles) should be provided at the project driveways in accordance with the *American Association of State Highway Transportation Officials* (AASHTO) standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic. The minimum acceptable sight distance is often considered the AASHTO stopping sight distance.

Sight distance requirements vary depending on the roadway speeds. Berryessa Road has a posted speed limit of 40 miles per hour (mph), Jackson Avenue has a posted speed limit of 35 mph, and Pepper Road has a posted speed limit of 15 mph. The AASHTO stopping sight distance for a facility

Figure 13
Gross Project Trips at Site Driveways



with a posted speed limit of 40 mph, 35 mph, and 15 mph are 300 feet, 250 feet, and 100 feet, respectively. Thus, a driver exiting the proposed project driveway on Berryessa Road must be able to see 300 feet to the west along Berryessa Road; a driver exiting the proposed project driveway on Jackson Avenue must be able to see 250 feet to the south along Jackson Avenue, and someone exiting the Pepper Road driveway must be able to see 100 feet both north and south of the driveway, in order to stop and avoid a collision.

Based on the project site plan and observations in the field, vehicles exiting the project site driveway on Berryessa Road would be able to see to the Jackson Avenue/Berryessa Road intersection, located approximately 300 feet west of the driveway, meeting the required 300-foot sight distance. From the Pepper Road driveway, drivers exiting the site would be able to see to Berryessa Road (approximately 160 feet to the north) and Pepper Way (90-degree turn where Pepper Road transitions into Pepper Way, located approximately 200 feet south of the project driveway), meeting the required 100-foot sight distance. The Jackson Avenue driveway, however, is located along a vertical curve that affects visibility to the south. Although there are trees on the sidewalk along the Jackson Avenue driveway's line of sight to the south, the tree trunks are narrow and have minimal interference with the ability to see northbound vehicles along this segment of Jackson Avenue. Drivers exiting the Jackson Avenue driveway would be able to see to approximately just north of the Jackson Avenue/Pepper Way intersection, approximately 255 feet to the south, meeting the required 250-foot sight distance. Therefore, it can be concluded that all project driveways would meet the AASHTO minimum stopping sight distance standards.

Project Driveway Operations

The estimated project trips at the project site driveways are shown on Figure 13.

Berryessa Road Driveway

Based on the project trip generation and trip assignment, it is estimated that approximately 83 and 37 trips would enter and exit the site, respectively, at the Berryessa Road driveway during the PM peak-hour. Access during the AM peak-hour is estimated to be lower, with approximately 34 inbound and 9 outbound trips at the Berryessa Road driveway. Since the project driveway along Berryessa Road would be restricted to right-turns in and out only, and with the benefit of the adjacent bike lane and wider shoulder width along the northern project site frontage, in addition to the relatively low traffic activity at the driveway (approximately one inbound trip per minute), project traffic is not anticipated to create operational issues along Berryessa Road.

Jackson Avenue Driveway

At the Jackson Avenue driveway, project trips also would be relatively low, with approximately 21 inbound trips (an average of one inbound trip every 3 minutes) and 65 outbound trips (an average of one outbound trip every 1 minute) occurring during the PM peak-hour. During the AM peak-hour, 9 inbound and 16 outbound trips are projected at this driveway. Traffic operations at the Jackson Avenue driveway would be greatly dictated by the operations along the northbound approach of the Jackson Avenue/Berryessa Road intersection, located approximately 160 feet north of the driveway.

As discussed previously, northbound queue lengths at the Jackson Avenue/Berryessa Road intersection already extend past the proposed driveway location during both the AM and PM peak-hours. During the peak hours, inbound project traffic would queue along northbound Jackson Avenue to access the driveway while outbound traffic would queue within the site while waiting for a gap in traffic to enter Jackson Avenue. The projected delay along northbound Jackson Avenue at the Jackson Avenue/Berryessa Road intersection is approximately 55 seconds during the PM peak-hour under background plus project conditions (36 seconds during the AM peak-hour). The 55-second delay would

be experienced by inbound traffic along northbound Jackson Avenue as well as outbound traffic at this driveway.

The 95th percentile queue lengths for the outbound traffic at the Jackson Avenue driveway were estimated based on the projected traffic volumes and delays at the driveway. The queue analysis shows that the outbound queue length is projected to be no more than one vehicle during the AM peak-hour and approximately 3 vehicles during the PM peak-hour. This driveway is shown on the site plan to provide queue storage capacity for no more than 1 vehicle before blocking access to adjacent parking stalls and drive aisle. Based on this estimate, during the PM peak-hour, outbound traffic at the Jackson Avenue driveway would momentarily block access to adjacent parking stalls/drive aisle while waiting for a gap in traffic along Jackson Avenue.

It is assumed that some of the outbound traffic at the Jackson Avenue driveway would make a left-turn movement at the Jackson Avenue/Berryessa Road intersection. However, based on the projected queue lengths along northbound Jackson Avenue, merging to the northbound left-turn lanes from this driveway to complete a northbound left-turn/U-turn movement during the peak hours would be challenging, potentially resulting in drivers looking for alternative outbound routes when making this movement, such as utilizing the Pepper Road driveway to the Jackson Avenue/Pepper Way or Jackson Avenue/Agave Way intersections.

Pepper Road Access Point/Driveway

At the Pepper Road access point/driveway, it is projected that only approximately 2 and 6 outbound trips during the AM and PM peak hours, respectively, would utilize this driveway. Because of adjacent roadway network and travel patterns, not a measurable amount of inbound traffic is anticipated to utilize this driveway. The low traffic volumes and speeds along Pepper Road would provide frequent gaps in opposing traffic allowing project traffic to exit the site without much delay.

Recommendation: It is recommended that a minimum queue storage capacity for 3 vehicles (approximately 60 feet) be provided on site at the Jackson Avenue driveway. This will provide enough queue storage space for the projected outbound queue length at this access point/driveway to store within the site without blocking access to adjacent parking stalls and drive aisles.

On-Site Circulation

On-site vehicular circulation was reviewed in accordance with the City of San Jose Zoning Code and generally accepted traffic engineering standards.

All project driveways would lead directly to a surface parking lot consisting of a two-way looped drive aisle with 90-degree parking along both sides of the aisle. The straight east-west segments of the drive aisle are shown on the site plan to be 24 feet wide, while the turn-around ends (loop ends) of the drive aisle are shown to be 28 feet wide. The drive aisle from the Berryessa Road driveway is shown to be 26 feet wide. The City of San Jose requires a minimum width of 26 feet for all two-way driveways and drive aisles with 90-degree parking along both sides of the aisle.

The drive aisle that leads from the Berryessa Road driveway intersects with the east-west looped drive aisle approximately 100 feet south of the driveway, forming a four-way intersection with the loop drive aisle. This drive aisle also crosses the pedestrian connection/pathway between Buildings A and B. The four-way intersection should be stop-controlled along all approaches of this intersection, with the stop control on the north leg of the intersection located prior to the pedestrian pathway. This would prevent potential conflict between inbound/outbound driveway along the Berryessa Road drive aisle, circulating traffic within the site, and pedestrian access between Buildings A and B. Approximately 70 feet of queue storage capacity would be provided within the Berryessa Road drive aisle, sufficient to accommodate up to 3 vehicles.

It is also recommended that stop signs also be installed within the loop drive aisle at the Jackson Avenue and Pepper Road driveways, allowing inbound traffic to access the site unimpeded.

Recommendation: The project must adhere to City of San Jose design guidelines and standards and work with City staff to ensure that the design of all driveways, drive aisles, and parking stalls is to the satisfaction of the City. Drive aisles on the site plan are shown to be 24 feet wide, which is less than the required 26-foot width for two-way drive aisles with 90-degree parking.

Recommendation: It is recommended that the on-site intersection formed by the Berryessa Road drive aisle and the loop drive aisle be stop controlled on all approaches of the intersection. It is also recommended that stop signs also be installed within the loop drive aisle at the Jackson Avenue and Pepper Road driveways, allowing inbound traffic to access the site unimpeded.

Bike and Pedestrian On-Site Circulation

The site plan shows pedestrian access point along all four project site frontages, adjacent to the proposed buildings. All pedestrian access points would connect to the existing sidewalks along the project frontage and the project's outdoor patio area next to the proposed buildings. One pedestrian access point, which includes a wheelchair ramp, would be located along Jackson Avenue. Two pedestrian access points would be provided along Berryessa Road, one west of the Berryessa Road driveway (wheelchair ramp) and the second one east of the driveway (stairs only). Pedestrians also would be able to access the site via Pepper Road. A marked pedestrian pathway, approximately 16 feet wide, is shown across the Berryessa Road drive aisle, connecting both proposed buildings. Additionally, a pedestrian walkway would be provided between the adjacent southern property and the proposed Building A. This pedestrian walkway would extend across the parking lot, connecting the project site to the existing Summer Squash Walkway, located adjacent to the southern project site boundary, and the adjacent neighborhood.

The pedestrian access along the Jackson Avenue project site frontage is shown on the site plan to include a curb ramp. However, since on-street parking is prohibited along the Jackson Avenue frontage, this curb ramp is not necessary. Providing a ramp from the Jackson Avenue frontage sidewalk to the project's outdoor patio would provide adequate pedestrian access from Jackson Avenue.

The sidewalks along the surrounding roadways and the adjacent neighborhoods, in conjunction with the various pedestrian access points, would provide a continuous pedestrian connection facilitating access between the project site and the surrounding neighborhoods.

Bicycle parking also is shown adjacent to the Jackson Avenue sidewalk/project pedestrian access point and along the outdoor patio area, next to both Buildings A and B. Bicyclists along both Jackson Avenue and Berryessa Road would be able to access all bicycle parking locations easily.

Overall, bicycle and pedestrian access and circulation within the site is anticipated to be adequate.

Recommendation: Since pedestrian circulation between the adjacent neighborhood to the south and the proposed buildings would occur within the parking lot, this pedestrian walkway must be clearly visible to all vehicles within the parking area with the use of pavement markings (as shown on the site plan) and signage.

Recommendation: The proposed curb ramp along the Jackson Avenue project site frontage (shown on the site plan) should be removed since on-street parking is prohibited along this segment of Jackson Avenue. Providing a ramp from the Jackson Avenue frontage sidewalk (without the curb cuts) to the project's outdoor patio would provide adequate pedestrian access from Jackson Avenue.

Truck Access and Circulation

The project site surface parking lot should be designed to provide adequate site access and on-site circulation for larger vehicles, including delivery trucks, garbage trucks, and emergency vehicles.

Loading Space Requirements

The City of San Jose Zoning Regulations Section 20.90.410 states that buildings intended for use by a manufacturing plant, storage facility, warehouse facility, goods display facility, retail store, wholesale store, market, hotel, hospital, mortuary, laundry, dry cleaning establishment, or other use or uses similarly requiring the receipt or distribution by vehicles or trucks of material or merchandise having a floor area of 10,000 s.f. or more shall provide at a minimum one off-street loading space, plus one additional such loading space for each 20,000 s.f. of floor area. The City's Code defines "floor area" as 85% of the "total gross floor area" of the building.

According to Section 20.90.420 of the City's Zoning Regulations, each off-street loading space shall be no less than 10 feet wide by 30 feet long by 15 feet high, exclusive of driveways for ingress and egress and maneuvering areas.

The site plan shows two loading spaces located directly adjacent to each of the proposed commercial buildings. Dimensions of the loading areas are not shown on the site plan.

Recommendation: The proposed loading areas should conform to City of San Jose design guidelines.

Emergency and Other Large Vehicle Access

Emergency vehicles could enter and exit the site via any of the three proposed driveways. However, due to the limited access to Jackson Avenue and Berryessa Road, emergency vehicles could be forced to complete a U-turn along one of these roadways when accessing/leaving the site. Once on site, emergency vehicles would circulate around to parking lot to access specific areas within the site.

Other larger vehicles, such as delivery trucks, would access the truck loading areas located along the northern east-west drive aisle, requiring them to maneuver throughout the site to access this area.

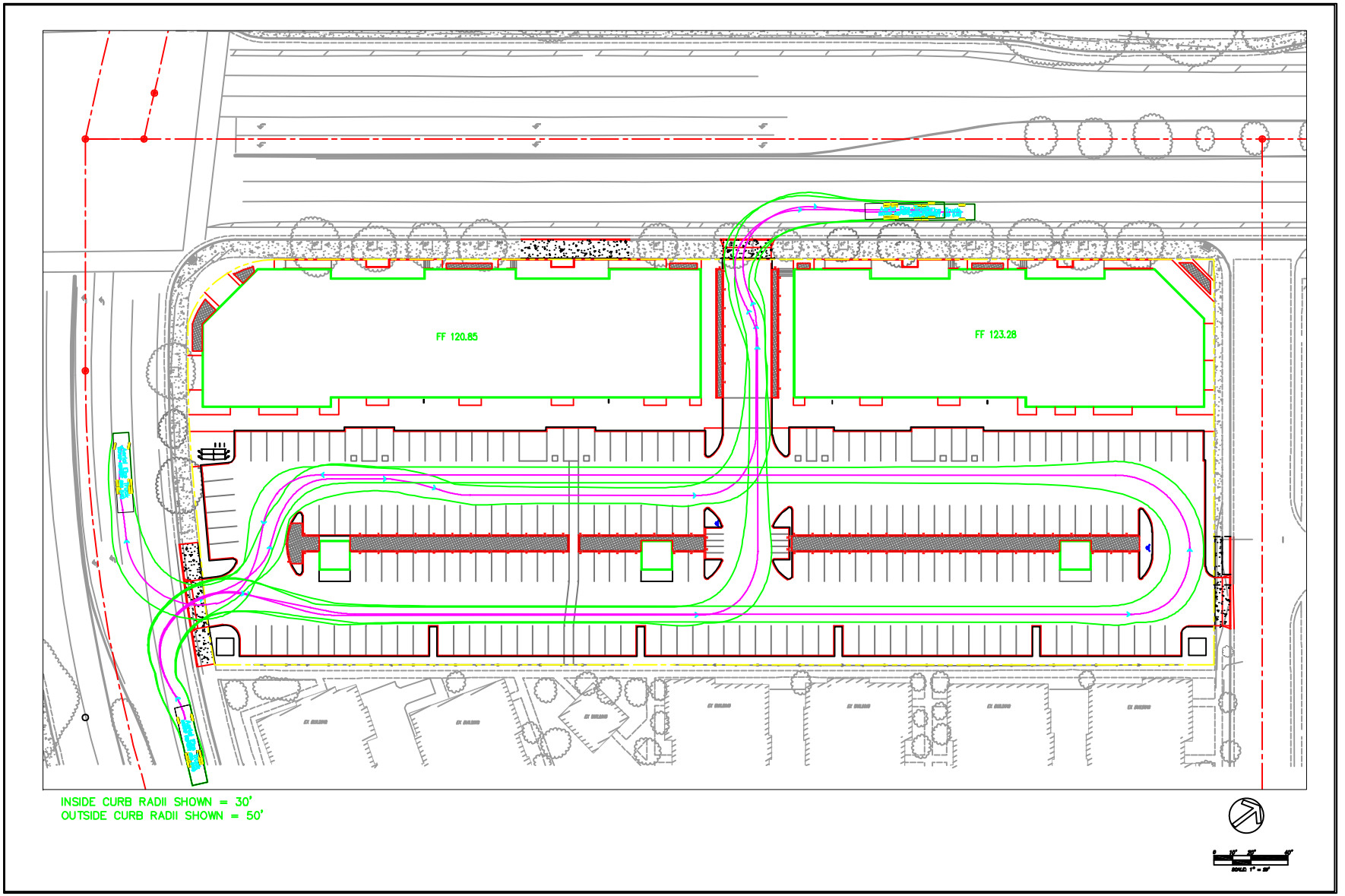
In order to provide adequate on-site circulation for larger vehicles, including emergency vehicles, the design of all internal roadways and access driveways must adhere to City of San Jose design standards and guidelines. The design of the site must include adequate turn radii, driveway width, and drive aisle width.

Truck On-Site Circulation

Truck turning templates prepared by the project's architect (Figure 14) show that the proposed driveway widths and drive aisles would be sufficient to accommodate turning movements of emergency vehicles. The truck turning plan shows the wheel travel path of a fire truck entering the project site via Jackson Avenue, maneuvering through the site, and exiting via either Jackson Avenue or Berryessa Road. It should be noted, however, that the plan shows the fire truck's wheel travel path right next to parking islands and curbs at all locations where the fire truck would turn within the project site, which would require fire trucks (and other larger vehicles) to make tight turns as they enter and exit the site.

Recommendation: The truck turning templates prepared by the project's architect show that fire trucks would be able to enter, circulate, and exit the site, however, they would be required to make tight turns to avoid contact with curbs and parking islands, in particularly at the project driveways. Ultimately, the City will determine if the proposed driveway and drive aisle widths would be sufficient to accommodate fire trucks on-site circulation.

Figure 14
Truck Turning Template



Garbage Collection

The site plan shows three trash enclosures located within the southern east-west drive aisle (north side of the drive aisle). This drive aisle also connects directly to both the Jackson Avenue and Pepper Road driveways. A trash loading area is designated next to the trash enclosures, helping minimize trash collection activity from blocking or affecting circulation within the drive aisle. The location of the trash enclosures would allow for waste collection trucks to enter the site via the Pepper Road driveway, access each of the trash enclosures, and exit the site via the Jackson Avenue driveway, all within the same drive aisle without the need to circulate the site.

Construction Activities

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk and pedestrian crosswalk closures, and bike lane closures. In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians, and bicyclists are able to adequately reach their intended destinations safely. The project would be required to submit a construction management plan for City approval that addresses schedule, closures/detours, staging, parking, and truck routes.

Pedestrian volumes along the project's frontages on Berryessa Road and Jackson Avenue are relatively low. Therefore, any necessary sidewalk closures/pedestrian detours would have very little effect on the overall pedestrian circulation in the area. Similarly, bicycle volumes along Berryessa Road and Jackson Avenue are relatively low, therefore, effects on bicycle facilities during construction are expected to be minimal.

Parking Supply

Vehicular Parking

The City of San Jose Zoning Code (Section 20.90.060) indicates that neighborhood shopping centers are required to provide one vehicular parking space for every 200 s.f. of floor area. The City of San Jose Municipal Code Chapter 20.90 defines "floor area" as 85% of the "total gross floor area" of the building. Based on the City's parking requirements, the project would be required to provide a total of 200 parking spaces to serve the proposed project. The project is proposing to provide a total of 200 parking spaces, thus meeting the number of parking spaces required by the City Code.

ADA Compliance

Per the 2016 California Building Code (CBC) Table 11B-208.2, six Americans with Disabilities Act (ADA) accessible spaces are required for projects providing 151 to 200 parking spaces. Of the required accessible parking spaces, two van accessible spaces are required. The plans show a total of eight accessible spaces, all located adjacent to the proposed buildings. Therefore, the proposed project satisfies ADA parking requirements.

Bicycle Parking

The City of San Jose Zoning Code (Section 20.90.060) indicates that neighborhood shopping centers are required to provide one bicycle parking space for every 3,000 s.f. of floor area. Based on the City's bicycle parking requirements, and defining "floor area" as 85% of the "total gross floor area" of the building, the project would be required to provide a total of 14 bicycle parking spaces to serve the proposed project.

Of the required bicycle parking, City standards require that 80 percent be short-term bicycle spaces and 20 percent be secured long-term bicycle spaces. Based on this bread down, the project must provide a total of 12 short-term and 2 long-term bicycle parking spaces. The City's definition of short-term and long-term bicycle parking is described below.

City of San Jose Long-Term and Short-Term Bicycle Parking

Long-term bicycle parking facilities are secure bicycle storage facilities for tenants of a building that fully enclose and protect bicycles and may include:

- A covered, access-controlled enclosure such as a fenced and gated area with short-term bicycle parking facilities,
- An access-controlled room with short-term bicycle parking facilities, and
- Individual bicycle lockers that securely enclose one bicycle per locker.

Short-term bicycle parking facilities are accessible and usable by visitors, guests, or business patrons and may include:

- Permanently anchored bicycle racks,
- Covered, lockable enclosures with permanently anchored racks for bicycles,
- Lockable bicycle rooms with permanently anchored racks, and
- Lockable, permanently anchored bicycle lockers.

The project site plan shows 4 bicycle lockers and 6 bicycle racks provided next to the Jackson Avenue pedestrian entrance. An additional 8 bicycle racks (four each next to Buildings A and B) are shown in the outdoor patio area. In total, the project proposes to provide 18 bicycle parking spaces (4 long-term and 14 short-term) exceeding the City bicycle requirements by 4 bicycle parking spaces.

Motorcycle Parking

According to the City's Motorcycle Parking Standards (Chapter 20.90.350, Table 20-250), the project is required to provide 1 motorcycle space per 20 code required auto parking spaces (with a minimum of three motorcycle parking spaces). Based on the 200 parking spaces required for the project, a total of 10 motorcycle parking spaces must be provided to serve the project.

The project is proposing a total of 10 motorcycle parking spaces, satisfying the City's motorcycle parking requirements.

Pedestrian, Bicycle, and Transit Analysis

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies, and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along all City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

The City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more by the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for the project mainly because of the nature of the project (a neighborhood serving shopping center) and the various pedestrian facilities, both existing and proposed, that would facilitate non-passenger vehicle access to the project site.

Pedestrian Facilities

Pedestrian facilities in the study area consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections (see Chapter 2 for details).

Berryessa Road Complete Street Improvements

The Berryessa BART Urban Village Plan identifies the improvement of Berryessa Road between US 101 and I-680 to a complete street. Complete streets are roadways designed to safely accommodate many different users, including people who bike, people who walk, transit riders, motorists, and emergency vehicles. The planned streetscape design for Berryessa Road includes features of Grand Boulevards and Complete Streets as defined in San José's General Plan and Complete Streets Design Guidelines.

The design of the project site frontage along Berryessa Road, including the proposed project driveway, will be required to accommodate the implementation of the planned Berryessa Road Complete Street improvements. In addition to providing a 20-foot sidewalk along the project frontage, the site driveway design must ensure the safe travel of pedestrians and bicyclists along Berryessa Road. The design of the driveway may require the relocation, resizing, or even the elimination of the driveway.

Other Pedestrian Facilities

Nearly every roadway surrounding the project site has sidewalks on both sides of the street, which would provide pedestrians with a connection between the project site and surrounding neighborhoods. All surrounding signalized intersections include marked crosswalks and Americans with Disabilities Act (ADA) compliance wheelchair ramps. Additionally, the proposed pedestrian connection between the project site and the adjacent (south) neighborhood would provide a direct and safe connection between the site and the adjacent neighborhood, encouraging walking, rather than driving, to access the site.

Currently, there is not a marked crosswalk along Pepper Road. Pedestrian traffic to the project site from the neighborhoods east of the project site would have to cross Pepper Road without the benefit of a marked crosswalk. Although not ideal, since traffic volumes along Pepper Road are relatively low (discussed in the following section), the posted speed limit is only 15 mph, and Pepper Road is only approximately 36 feet wide, the existing pedestrian activity across Pepper Road can be accommodated. However, with the expected increase in pedestrian traffic traveling between the project site and the adjacent neighborhoods with implementation of the proposed project, it is recommended that a crosswalk be installed along Pepper Road, providing a direct connection between the neighborhoods east of the project site and the project site.

Recommendation: It is recommended that a crosswalk be installed along Pepper Road, providing a direct connection between the neighborhoods east of the project site and the project site. For enhanced safety, the crosswalk can include one or a combination of the following safety features: high visibility crosswalk, on-street signage, raised crosswalk, flashing beacons, among others. Since Pepper Road is a private street, these improvements will need to be implemented by the private stakeholder(s) who have ownership of Pepper Road.

Bicycle Facilities

There are several bike facilities in the immediate vicinity of the project site (see Chapter 2 for details).

Currently, Class II bike lanes are available along both project site frontages on Jackson Avenue and Berryessa Road, and along various roadways in the vicinity of the project site. The bikeways within the vicinity of the project site would remain unchanged under project conditions. Bicyclists to the project site would be able to access the proposed bicycle parking from any of the project site frontages.

The San Jose Better Bike Plan 2025 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Per the Bike Plan 2025, the existing Class II bike lanes along the Berryessa Road and Jackson Road frontages are planned to be upgraded to Class IV protected bike lanes. The combination of existing and planned bike facilities in the project vicinity would be adequate to serve the project's bicycle traffic.

As previously described, the City's General Plan identifies the bicycle commute mode split target as 15 percent or more by the year 2040. This calculates to approximately 6 and 15 new bicycle trips during the AM and PM peak hours, respectively. Due to the extensive existing bicycle facilities in the vicinity of the project site, this level of bicycle mode share is a reasonable goal for the project.

Recommendation: The project will be required to provide monetary contribution for an in-lieu fee to planned Class IV protected bike lanes along the Berryessa Road and Jackson Road project frontages per the San Jose Better Bike Plan 2025 ($144 per LF).

Transit Services

The project site is adequately-served by the existing VTA transit services. The nearest bus stops to the project site are located near the intersection of Jackson Avenue/Flickinger Avenue and Berryessa Road, approximately 300-400 feet from the project site. Additionally, the Berryessa LRT station is located near the intersection of Capitol Avenue and Berryessa Road, approximately 0.6-mile from the project site, and the Berryessa Transit Center is located approximately one mile southwest of the project site. Therefore, the new transit trips generated by the project are not expected to create demand in excess of the transit service that is currently provided.

Effects on Surrounding Residential Streets

As proposed, direct access to the project site would be provided by a full-access driveway on Pepper Road. Since access to the site also would be provided via Jackson Avenue and Berryessa Road, the access demand at the Pepper Road driveway is anticipated to be relatively low and would mainly consist of outbound traffic heading eastbound on Berryessa Road.

It is projected that inbound traffic from the north, west, and east would utilize the Berryessa Road driveway while inbound traffic from the south would utilize the Jackson Avenue driveway. Outbound access to the north, west, and south would utilize the Jackson Avenue driveway while outbound access to the east would utilize both the Berryessa Road and Pepper Road driveways. However, as described previously, projected queue lengths along northbound Jackson Avenue currently extend and are projected to continue to extend beyond the project driveway, potentially resulting in outbound traffic heading west and south (assumed to complete a northbound left-turn/U-turn movement at the Jackson Avenue/Berryessa Road intersection) to look for alternative outbound routes. Such alternative routes include utilizing the Pepper Road driveway to either the Jackson Avenue/Pepper Way intersection or the Jackson Avenue/Agave Way intersection. For this reason, an evaluation of the potential effects of the project traffic on Pepper Road/Way as an alternative outbound route was completed.

The evaluation consists of a roadway segment analysis to quantify the potential change in traffic volumes along Pepper Way as a result of project traffic utilizing Pepper Road/Way as an alternative access route. For this evaluation, it is assumed that 50% of the outbound project traffic at the Jackson Avenue driveway heading west and south would utilize Pepper Road/Way to access the northbound left-turn lanes at the Jackson Avenue/Berryessa Road intersection. The existing and projected daily traffic volumes with the project along Pepper Way were compared to acceptable volume thresholds for this type of roadway to determine if the projected change in traffic volume would be significant.

Unlike the intersection level of service analysis methodology, which has established deficiency thresholds, the analyses contained in this section are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community. Several studies have been made regarding the indirect impacts of traffic on residential neighborhoods. The variables affecting these impacts include traffic volumes, type, or makeup, of traffic (i.e. passenger cars, trucks, motorcycles, emergency vehicles, etc.), traffic speed, perception of through traffic as a percentage of total traffic, adequacy of street alignment (i.e., horizontal and vertical curvature), accident experience, on-street parking, residential dwelling setbacks from the street, pedestrian traffic, and street pavement conditions (which would add to traffic noise as the pavement deteriorates). Other factors that may be a contributor to neighborhood nuisance levels include socio-economic status of the neighborhood, and expectations of the residents regarding traffic volumes; however, these are beyond the purview of CEQA and are provided here for informational purposes only.

Roadway Characteristics

Pepper Road/Way is a private two-lane residential roadway extending from Jackson Avenue to Berryessa Road with a posted speed limit of 15 mph. Pepper Road is approximately 400 feet long then it bends 90 degrees transitioning into Pepper Way, an approximately 500-foot-long roadway. The entire length of Pepper Road/Way is approximately 36 feet wide with on-street parking and sidewalks along both sides of the street.

For this evaluation, Pepper Road/Way is classified as a local (residential) street, or a facility having the primary function of providing access to immediately adjacent land. Local streets are typically two-lane, undivided roadways with on-street parking and defined by the City of San Jose as being less than 60 feet wide (48 and 56 ft. right-of-way) and/or serving average daily traffic (ADT) volumes typically ranging from 50 to 2,000 vehicles.

Traffic Volumes on Pepper Road/Way

The effects of project traffic on Pepper Road/Way were evaluated based on field observations, collected traffic volume and speed data, and projections of the additional project generated traffic. Table 9 presents a summary of existing and projected traffic volumes and speeds along Pepper Way.

Twenty-four-hour mechanical (tube) counts and speed surveys were conducted along Pepper Way in January 2019 (count sheets are included in Appendix A). The tube counts indicate that Pepper Way, east of Jackson Avenue, currently carries approximately 698 vehicles per day, with 417 vehicles traveling in the eastbound direction and 281 vehicles traveling in the westbound direction. The speed surveys indicate that the 85th percentile speed along Pepper Way is approximately 19 to 20 mph, exceeding the posted speed limit by 4 to 5 mph. Speeds within 5 mph of the posted speed limits are considered reasonable. Therefore, based on the collected data, it can be concluded that the existing ADT volumes along Pepper Way are representative of low-volume local streets and that there is not an obvious speeding issue along Pepper Way and the posted speed limit is adequate.

Assuming that 50% of the outbound project traffic at the Jackson Avenue driveway heading west and south would utilize Pepper Road/Way, this equates to approximately 345 new daily trips added to Pepper Road/Way (outbound/westbound direction). This also represents approximately 25 outbound project trips along Pepper Road/Way during the PM peak-hour. Therefore, the daily traffic volumes along Pepper Way would increase to approximately 1,043 daily vehicles, an increase in traffic volume of approximately 49 percent. The estimated ADT volumes along Pepper Way would continue to be well within the typical range for local streets.

Table 9
Roadway Segment Analysis

Roadway Segment	Count Date	Direction	Speed (mph) Limit	Speed (mph) 85th Percentile	ADT Existing	ADT Project Trips	ADT Existing + Project	ADT % Change
Pepper Way, east of Jackson Avenue	01/23/19	Eastbound	15	19	417	0	417	0%
		Westbound	15	20	281	345	626	123%
		Total			**698**	**345**	**1,043**	**49%**

Potential Cut-Through Traffic

Alternatively, outbound traffic from the Jackson Avenue driveway heading south potentially could utilize residential streets south of the project site to access southbound Jackson Avenue. One potential route would be Pepper Way to Sundrop Lane to the Jackson Avenue/Agave Way intersection, which provides left-turn access to southbound Jackson Avenue. Because both Sundrop Lane and Agave Way are narrow residential roadways, it is not recommended that these streets be utilized as access routes to/from the project site.

In order to avoid project traffic from utilizing Sundrop Lane/Agave Way to access southbound Jackson Avenue, it is recommended that a physical turn restriction be implemented at the intersection of Pepper Way and Sundrop Lane. The turn restriction should prohibit westbound traffic on Pepper Way from making a left-turn into Sundrop Lane. This turn restriction could be implemented by installing a raised island along the Sundrop Lane leg of the intersection, continuing to allow all movements at the intersection with the exception of the left-turn movement from westbound Pepper Way to southbound Sundrop Lane. The proposed turn restriction is illustrated on Figure 15.

The proposed turn restriction at the intersection of Pepper Way and Sundrop Lane would have minimal effect on residents of the neighborhood south of Pepper Way since traffic generated by these residents would access the neighborhood via Jackson Avenue.

Recommendation: In order to avoid potential cut-through traffic along Sundrop Lane/Agave Way, it is recommended that a physical turn restriction be implemented at the intersection of Pepper Way and Sundrop Lane. The turn restriction should prohibit westbound traffic on Pepper Way from making a left-turn into Sundrop Lane. The turn restriction could be implemented with a raised island along the Sundrop Lane leg of the intersection. Since Pepper Road is a private street, this improvement will need to be implemented by the private stakeholder(s) who have ownership of Pepper Way.

Figure 15
Potential Traffic Calming Measure

5. Conclusions

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's *Transportation Analysis Handbook 2018*, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA).

CEQA Transportation Analysis Exemption

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determines whether a CEQA transportation analysis would be required for development projects. If a project meets the City's screening criteria, it is then presumed that the project, or the component of the project, would result in less-than-significant VMT impacts and a detailed CEQA VMT analysis is not required.

Per the City of San Jose VMT screening criteria, retail projects with 100,000 square feet of total gross floor area or less without drive-through operations are considered local-serving and do not require a detailed CEQA transportation analysis. The proposed project satisfies this criterion and therefore is not required to complete a detailed VMT analysis.

Local Transportation Analysis

Future Intersection Operation Conditions

The intersection operations analysis shows that, based on City of San Jose guidelines, the project would not have an adverse effect on intersection operations at any of the study intersections.

Intersection Queuing Analysis

The results of the queuing analysis indicate the following:

2. Jackson Avenue/Flickinger Avenue and Berryessa Road

Northbound Left-Turn

The projected 95th percentile vehicle queue for this movement currently exceeds and would continue to exceed the existing vehicle storage capacity during the AM peak-hour under background plus project conditions. The addition of project traffic to this movement is not projected to increase the vehicle queue length during the AM peak hour, therefore, the proposed project would have no effect on the projected queue storage deficiency for this movement.

Westbound Left-Turn

The projected 95th percentile vehicle queue for this movement currently exceeds and would continue to exceed the existing vehicle storage capacity during the PM peak-hour under background plus project conditions. The addition of project traffic to this movement is projected to increase the vehicle queue length by one vehicle per lane during the PM peak-hour, exceeding the existing queue store capacity by 2 vehicles per lane.

It is possible to extend the existing westbound left-turn pockets the necessary additional 50 feet to accommodate the projected queue storage deficiency under background plus project conditions. Extending the existing westbound left-turn pockets would require the partial removal of the existing landscape median and possible removal of one tree. The City has indicated that it would prefer to maintain the existing median island/landscaping and turn pocket length.

Northbound Through/Right-Turn

The projected 95th percentile vehicle queue for this movement currently extends for approximately 1150 and 550 feet during the AM and PM peak hours, respectively, extending past Pepper Way. The addition of project traffic to this movement is not projected to increase the vehicle queue lengths during the peak hours, therefore, the proposed project would have no effect on the projected queue storage deficiency for this movement.

Other Local Transportation Issues

Project Driveway Operations

Recommendation: It is recommended that a minimum queue storage capacity for 3 vehicles (approximately 60 feet) be provided on site at the Jackson Avenue driveway. This will provide enough queue storage space for the projected outbound queue length at this access point/driveway to store within the site without blocking access to adjacent parking stalls and drive aisles.

On-Site Circulation

Recommendation: The project must adhere to City of San Jose design guidelines and standards and work with City staff to ensure that the design of all driveways, drive aisles, and parking stalls is to the satisfaction of the City. Drive aisles on the site plan are shown to be 24 feet wide, which is less than the required 26-foot width for two-way drive aisles with 90-degree parking.

Recommendation: It is recommended that the on-site intersection formed by the Berryessa Road drive aisle and the loop drive aisle be stop controlled on all approaches of the intersection. It is also recommended that stop signs also be installed within the loop drive aisle at the Jackson Avenue and Pepper Road driveways, allowing inbound traffic to access the site unimpeded.

Bike and Pedestrian On-Site Circulation

Recommendation: Since pedestrian circulation between the adjacent neighborhood to the south and the proposed buildings would occur within the parking lot, this pedestrian walkway must be clearly visible to all vehicles within the parking area with the use of pavement markings (as shown on the site plan) and signage.

Recommendation: The proposed curb ramp along the Jackson Avenue project site frontage (shown on the site plan) should be removed since on-street parking is prohibited along this segment of Jackson Avenue. Providing a ramp from the Jackson Avenue frontage sidewalk (without the curb cuts) to the project's outdoor patio would provide adequate pedestrian access from Jackson Avenue.

Loading Space Requirements

Recommendation: The proposed loading areas should conform to City of San Jose design guidelines.

Truck On-site Circulation

Recommendation: The truck turning templates prepared by the project's architect show that fire trucks would be able to enter, circulate, and exit the site, however, they would be required to make tight turns to avoid contact with curbs and parking islands, in particularly at the project driveways. Ultimately, the City will determine if the proposed driveway and drive aisle widths would be sufficient to accommodate fire trucks on-site circulation.

Pedestrian Facilities

Recommendation: It is recommended that a crosswalk be installed along Pepper Road, providing a direct connection between the neighborhoods east of the project site and the project site. For enhanced safety, the crosswalk can include one or a combination of the following safety features: high visibility crosswalk, on-street signage, raised crosswalk, flashing beacons, among others. Since Pepper Road is a private street, these improvements will need to be implemented by the private stakeholder(s) who have ownership of Pepper Road.

Bicycle Facilities

Recommendation: The project will be required to provide monetary contribution for an in-lieu fee to planned Class IV protected bike lanes along the Berryessa Road and Jackson Road project frontages per the San Jose Better Bike Plan 2025 ($144 per LF).

Potential Cut-Through Traffic

Recommendation: In order to avoid potential cut-through traffic along Sundrop Lane/Agave Way, it is recommended that a physical turn restriction be implemented at the intersection of Pepper Way and Sundrop Lane. The turn restriction should prohibit westbound traffic on Pepper Way from making a left-turn into Sundrop Lane. The turn restriction could be implemented with a raised island along the Sundrop Lane leg of the intersection. Since Pepper Road is a private street, this improvement will need to be implemented by the private stakeholder(s) who have ownership of Pepper Way.

Berryessa Plaza Commercial Center TA

Technical Appendices

August 16, 2022

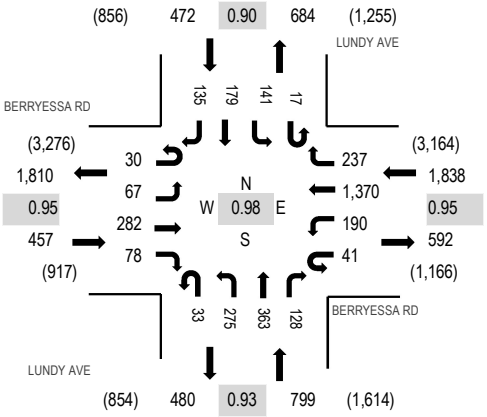
Appendix A
Traffic Counts

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

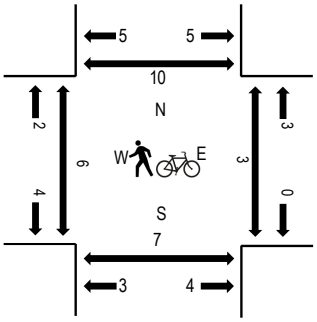
Location: 1 LUNDY AVE & BERRYESSA RD AM
Date: Wednesday, January 23, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BERRYESSA RD Eastbound				BERRYESSA RD Westbound				LUNDY AVE Northbound				LUNDY AVE Southbound					Rolling	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	9	13	79	21	0	34	221	28	3	73	68	31	3	22	49	20	674	3,180	0	0	1	0
7:15 AM	9	16	63	16	9	36	270	35	8	77	86	35	5	27	31	16	739	3,419	1	2	1	0
7:30 AM	6	15	77	12	6	40	316	52	5	64	118	42	4	41	34	23	855	3,559	2	0	0	1
7:45 AM	7	20	80	15	7	39	312	73	5	83	116	33	6	49	36	31	912	3,566	2	1	1	0
8:00 AM	2	13	76	31	13	41	355	46	10	70	87	38	3	35	61	32	913	3,371	0	0	2	2
8:15 AM	8	15	71	14	11	57	350	67	10	60	72	33	7	35	38	31	879		2	0	1	2
8:30 AM	13	19	55	18	10	53	353	51	8	62	88	24	1	22	44	41	862		1	0	2	5
8:45 AM	11	19	75	19	5	24	228	22	3	86	84	32	3	30	39	37	717		4	1	4	4

Peak Rolling Hour Flow Rates

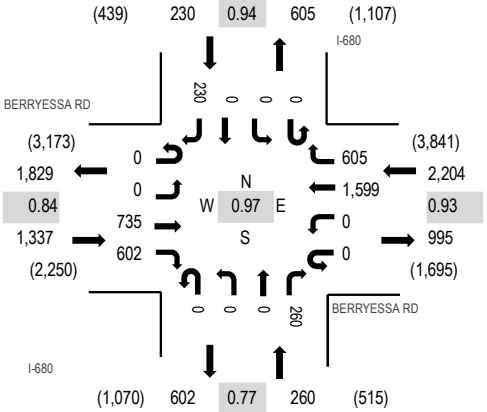
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	5	3	0	2	10	3	0	2	1	0	0	0	0	1	27
Lights	29	64	269	72	41	185	1,347	229	32	264	347	119	17	141	170	130	3,456
Mediums	1	3	8	3	0	3	13	5	1	9	15	9	0	0	9	4	83
Total	30	67	282	78	41	190	1,370	237	33	275	363	128	17	141	179	135	3,566

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

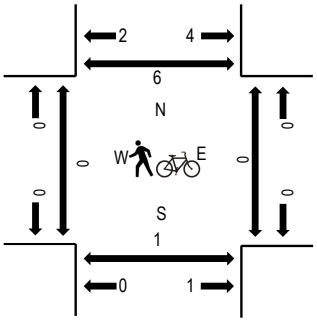
Location: 2 I-680 & BERRYESSA RD AM
Date: Wednesday, January 23, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BERRYESSA RD Eastbound				BERRYESSA RD Westbound				I-680 Northbound				I-680 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	91	108	0	0	245	110	0	0	0	63	0	0	0	48	665	3,619	0	0	0	0
7:15 AM	0	0	136	162	0	0	289	144	0	0	0	99	0	0	0	61	891	3,980	0	0	1	0
7:30 AM	0	0	243	157	0	0	349	143	0	0	0	78	0	0	0	65	1,035	4,031	0	0	0	1
7:45 AM	0	0	172	132	0	0	446	146	0	0	0	66	0	0	0	66	1,028	3,779	0	0	0	2
8:00 AM	0	0	191	154	0	0	419	145	0	0	0	62	0	0	0	55	1,026	3,426	0	0	0	1
8:15 AM	0	0	129	159	0	0	385	171	0	0	0	54	0	0	0	44	942		0	0	1	1
8:30 AM	0	0	101	107	0	0	360	123	0	0	0	47	0	0	0	45	783		0	0	1	0
8:45 AM	0	0	117	91	0	0	241	125	0	0	0	46	0	0	0	55	675		0	0	0	2

Peak Rolling Hour Flow Rates

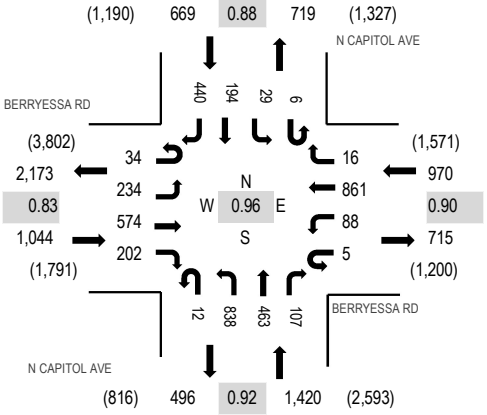
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	6	0	0	1	1	0	0	0	2	0	0	0	9	21
Lights	0	0	722	581	0	0	1,585	602	0	0	0	256	0	0	0	217	3,963
Mediums	0	0	11	15	0	0	13	2	0	0	0	2	0	0	0	4	47
Total	0	0	735	602	0	0	1,599	605	0	0	0	260	0	0	0	230	4,031

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

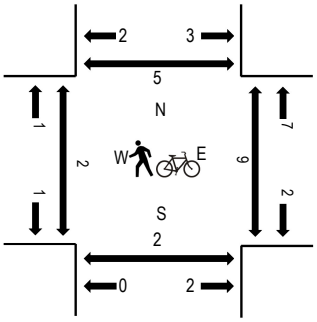
Location: 3 N CAPITOL AVE & BERRYESSA RD AM
Date: Wednesday, January 23, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BERRYESSA RD Eastbound				BERRYESSA RD Westbound				N CAPITOL AVE Northbound				N CAPITOL AVE Southbound					Rolling	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	12	31	74	30	2	8	110	4	1	158	87	13	0	5	22	85	642	3,563	0	3	0	4
7:15 AM	6	34	150	34	2	11	135	1	3	208	125	20	1	3	23	89	845	3,990	1	1	0	1
7:30 AM	11	67	203	45	0	16	160	2	3	213	117	31	2	9	35	104	1,018	4,103	0	1	0	2
7:45 AM	12	53	132	47	0	9	236	3	4	229	133	22	2	3	56	117	1,058	3,915	0	2	0	1
8:00 AM	6	73	152	57	1	36	229	5	2	176	110	31	1	9	63	118	1,069	3,582	2	3	0	0
8:15 AM	5	41	87	53	4	27	236	6	3	220	103	23	1	8	40	101	958		0	3	2	1
8:30 AM	15	53	76	35	0	13	168	14	4	185	103	19	3	5	38	99	830		1	1	2	3
8:45 AM	9	61	91	36	0	18	108	7	5	149	83	10	1	15	39	93	725		0	1	1	2

Peak Rolling Hour Flow Rates

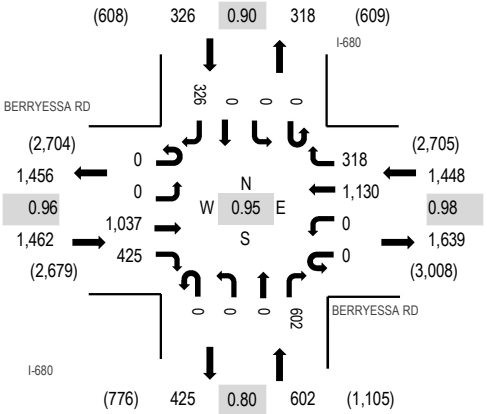
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	3	1	0	0	0	2	0	0	0	0	0	0	0	0	0	6
Lights	32	228	566	197	5	88	854	16	12	833	451	107	6	27	182	433	4,037
Mediums	2	3	7	5	0	0	5	0	0	5	12	0	0	2	12	7	60
Total	34	234	574	202	5	88	861	16	12	838	463	107	6	29	194	440	4,103

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

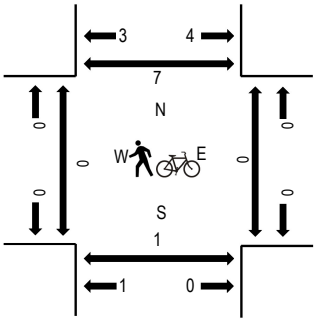
Location: 2 I-680 & BERRYESSA RD PM
Date: Wednesday, January 23, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BERRYESSA RD Eastbound				BERRYESSA RD Westbound				I-680 Northbound				I-680 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	205	97	0	0	245	70	0	0	0	141	0	0	0	57	815	3,259	0	0	1	1
4:15 PM	0	0	209	83	0	0	262	65	0	0	0	133	0	0	0	63	815	3,376	0	0	1	0
4:30 PM	0	0	235	87	0	0	240	64	0	0	0	107	0	0	0	71	804	3,485	0	0	2	1
4:45 PM	0	0	217	84	0	0	219	92	0	0	0	122	0	0	0	91	825	3,653	0	0	1	5
5:00 PM	0	0	265	110	0	0	300	70	0	0	0	109	0	0	0	78	932	3,838	0	0	1	1
5:15 PM	0	0	243	103	0	0	275	85	0	0	0	129	0	0	0	89	924		0	0	0	2
5:30 PM	0	0	254	105	0	0	278	92	0	0	0	176	0	0	0	67	972		0	0	0	3
5:45 PM	0	0	275	107	0	0	277	71	0	0	0	188	0	0	0	92	1,010		0	0	0	1

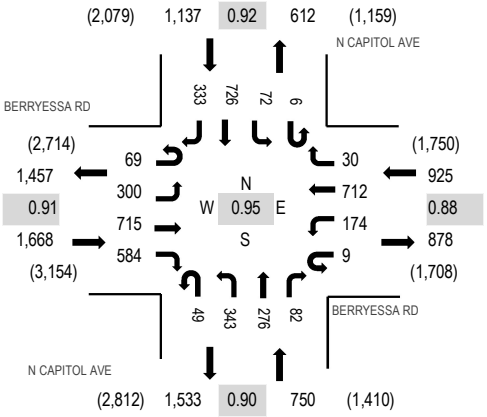
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	0	1,035	421	0	0	1,122	316	0	0	0	597	0	0	0	321	3,812
Mediums	0	0	2	3	0	0	8	2	0	0	0	5	0	0	0	5	25
Total	0	0	1,037	425	0	0	1,130	318	0	0	0	602	0	0	0	326	3,838

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

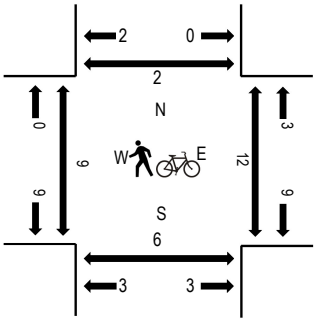
Location: 3 N CAPITOL AVE & BERRYESSA RD PM
Date: Wednesday, January 23, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BERRYESSA RD Eastbound				BERRYESSA RD Westbound				N CAPITOL AVE Northbound				N CAPITOL AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	10	76	168	113	3	38	155	7	8	85	46	17	6	17	151	56	956	3,913	0	1	0	1
4:15 PM	9	72	188	113	4	32	146	9	10	82	57	18	2	21	145	73	981	4,039	6	2	3	3
4:30 PM	13	60	163	121	2	43	173	7	2	60	60	15	4	26	183	63	995	4,131	2	2	0	1
4:45 PM	16	73	153	138	2	38	157	9	11	119	53	17	6	16	133	40	981	4,279	2	3	4	5
5:00 PM	15	66	168	145	0	39	176	8	9	85	58	17	3	17	184	92	1,082	4,480	2	2	2	0
5:15 PM	13	75	173	126	4	49	152	3	13	89	83	28	0	19	155	91	1,073		2	5	0	2
5:30 PM	20	72	186	153	2	43	208	9	8	92	65	17	2	15	181	70	1,143		3	1	0	0
5:45 PM	21	87	188	160	3	43	176	10	19	77	70	20	1	21	206	80	1,182		0	2	4	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	69	300	712	583	9	174	705	30	49	339	269	82	6	72	720	333	4,452
Mediums	0	0	2	1	0	0	7	0	0	4	7	0	0	0	6	0	27
Total	69	300	715	584	9	174	712	30	49	343	276	82	6	72	726	333	4,480

Appendix B
Approved Trips Inventory

Intersection of: BERRYESSA/LUNDY

Traffix Node Number: 3076

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	10	27	2	0	0	0	1	3	0	1	10	2
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	2	0	0	3	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	36	0	1	0	2	12	2	6	5	6	46	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	61	7	14	0	4	29	53	93	113	7	50	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	13	1	0	0	2	7	3	6	6	0	13	0
PRE05-430 COMM PEPPER LANE	0	0	0	10	0	0	0	0	0	0	0	9
TOTAL:	**120**	**37**	**17**	**10**	**11**	**48**	**59**	**108**	**124**	**14**	**119**	**11**

	LEFT	THRU	RIGHT
NORTH	10	11	48
EAST	14	119	11
SOUTH	120	37	17
WEST	59	108	124

Intersection of: BERRYESSA/LUNDY

Traffix Node Number: 3076

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	2	6	4	11	24	8	0	5	1	5	11	3
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	4	0	0	1	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	6	2	5	0	0	2	11	40	32	1	8	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	111	3	7	0	7	53	27	48	59	13	91	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	42	7	0	0	7	21	21	42	42	0	42	0
PRE05-430 COMM PEPPER LANE	0	0	0	17	0	0	0	0	0	0	0	11
TOTAL:	**161**	**22**	**16**	**28**	**39**	**84**	**59**	**135**	**134**	**19**	**152**	**14**

	LEFT	THRU	RIGHT
NORTH	28	39	84
EAST	19	152	14
SOUTH	161	22	16
WEST	59	135	134

Intersection of: BERRYESSA/CAPITOL

Traffix Node Number: 3293

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
CP13-059 VILLA SPORT FITNESS CLUB 1155 N CAPITOL AVE	0	9	0	3	10	30	27	0	0	0	0	3
NSJ NORTH SAN JOSE	22	10	3	0	1	3	2	5	1	1	11	2
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	1	2	0	2	2	1	2	0	3	3	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	3	0	0	0	0	1	0	1	0	0	5	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	2	0	0	0	0	0	1	8	4	0	4	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	48	4	4	0	2	0	0	0	26	2	0	0
PDC89-08-110 31 SFD DOREL(S/S & E/O), 200' N/O OTTO	2	1	0	1	2	0	0	4	4	0	3	1
PRE05-430 COMM PEPPER LANE	8	0	0	0	0	8	7	0	7	0	0	0
TOTAL:	**85**	**25**	**9**	**4**	**17**	**44**	**38**	**20**	**42**	**6**	**26**	**6**

	LEFT	THRU	RIGHT
NORTH	4	17	44
EAST	6	26	6
SOUTH	85	25	9
WEST	38	20	42

Intersection of: BERRYESSA/CAPITOL

Traffix Node Number: 3293

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
CP13-059 VILLA SPORT FITNESS CLUB 1155 N CAPITOL AVE	0	25	0	8	23	69	75	0	0	0	0	8
NSJ NORTH SAN JOSE	6	5	2	2	14	7	3	6	5	3	8	0
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	2	3	0	1	1	2	4	0	1	1	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	1	0	0	0	0	0	1	5	3	0	1	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	4	0	0	0	0	1	0	4	1	0	7	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	26	2	2	0	4	0	0	0	48	4	0	0
PDC89-08-110 31 SFD DOREL(S/S & E/O), 200' N/O OTTO	4	2	0	1	1	0	0	3	2	0	4	1
PRE05-430 COMM PEPPER LANE	13	0	0	0	0	13	8	0	8	0	0	0
TOTAL:	**54**	**36**	**7**	**11**	**43**	**91**	**89**	**22**	**67**	**8**	**21**	**9**

	LEFT	THRU	RIGHT
NORTH	11	43	91
EAST	8	21	9
SOUTH	54	36	7
WEST	89	22	67

Intersection of: BERRYESSA/FLICKINGER

Traffix Node Number: 3295

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	2	4	3	0	0	0	0	4	0	1	10	1
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	2	0	0	3	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	6	0	0	0	1	4	1	6	1	2	41	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	5	1	3	0	0	4	9	85	10	1	46	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	3	1	0	0	2	5	2	0	1	0	0	0
PRE05-430 COMM PEPPER LANE	9	9	0	10	0	0	0	10	0	0	0	0
TOTAL:	**25**	**17**	**6**	**10**	**6**	**13**	**12**	**105**	**12**	**4**	**97**	**1**

	LEFT	THRU	RIGHT
NORTH	10	6	13
EAST	4	97	1
SOUTH	25	17	6
WEST	12	105	12

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	1	1	1	6	8	0	0	9	1	2	7	2
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	4	0	0	1	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	1	1	1	0	0	1	3	36	6	0	7	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	10	0	1	0	1	8	4	44	5	3	83	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	10	5	0	0	5	16	16	0	10	0	0	0
PRE05-430 COMM PEPPER LANE	11	11	0	17	0	0	0	17	0	0	0	0
TOTAL:	**33**	**22**	**3**	**23**	**15**	**25**	**23**	**106**	**22**	**5**	**97**	**2**

	LEFT	THRU	RIGHT
NORTH	23	15	25
EAST	5	97	2
SOUTH	33	22	3
WEST	23	106	22

Intersection of: JACKSON/MABURY

Traffix Node Number: 3595

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	0	1	0	0	0	0	1	2	0	1	4	1
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	7	4	0	11	0	0	0	0	4	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	5	4	0	0	1	3	0	1	1	0	7	2
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	5	3	0	1	6	3	5	5	9	0	3	1
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	3	1	0	0	0	0	0
PP08-024 EDUCATIONAL PARK BRANCH LIBRARY 1776 EDUCATIONAL PARK DRIVE (INDEPENDENCE HIGH	0	0	0	0	0	0	0	0	0	0	0	0
PRE05-430 COMM PEPPER LANE	0	8	0	0	7	7	8	0	0	0	0	0
TOTAL:	**10**	**23**	**4**	**1**	**25**	**16**	**15**	**8**	**10**	**5**	**14**	**4**

	LEFT	THRU	RIGHT
NORTH	1	25	16
EAST	5	14	4
SOUTH	10	23	4
WEST	15	8	10

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	0	0	0	2	5	1	0	3	1	2	4	0
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	12	6	0	4	0	0	0	0	2	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	1	1	0	2	3	0	2	6	4	0	1	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	9	6	0	1	3	5	3	2	5	0	5	1
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	10	10	0	0	0	0	0
PP08-024 EDUCATIONAL PARK BRANCH LIBRARY 1776 EDUCATIONAL PARK DRIVE (INDEPENDENCE HIGH	1	0	0	0	0	12	12	0	1	0	0	0
PRE05-430 COMM PEPPER LANE	0	13	0	0	8	8	13	0	0	0	0	0
TOTAL:	**11**	**32**	**6**	**5**	**23**	**36**	**40**	**11**	**11**	**4**	**10**	**1**

	LEFT	THRU	RIGHT
NORTH	5	23	36
EAST	4	10	1
SOUTH	11	32	6
WEST	40	11	11

Intersection of: 680/BERRYESSA

Traffix Node Number: 3948

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
CP13-059 VILLA SPORT FITNESS CLUB 1155 N CAPITOL AVE	0	0	9	0	0	0	0	18	0	0	0	0
NSJ NORTH SAN JOSE	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	0	0	0	0	0	0	0	1	3	0	10	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	14	60	0	7	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	0	0	2	0	0	0	0	24	0	0	17	31
PRE05-430 COMM PEPPER LANE	0	0	0	0	0	0	0	14	0	0	15	0
TOTAL:	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**71**	**63**	**0**	**49**	**31**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	0	49	31
SOUTH	0	0	11
WEST	0	71	63

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
CP13-059 VILLA SPORT FITNESS CLUB 1155 N CAPITOL AVE	0	0	25	0	0	0	0	50	0	0	0	0
NSJ NORTH SAN JOSE	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	0	0	0	0	0	0	0	9	21	0	2	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	7	31	0	14	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	0	0	4	0	0	0	0	45	0	0	9	17
PRE05-430 COMM PEPPER LANE	0	0	0	0	0	0	0	16	0	0	26	0
TOTAL:	**0**	**0**	**29**	**0**	**0**	**0**	**0**	**127**	**52**	**0**	**51**	**17**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	0	51	17
SOUTH	0	0	29
WEST	0	127	52

Appendix C
Volume Summary

Intersection Number: 1
Traffix Node Number: 3076
Intersection Name: Lundy Avenue and Berryessa Road *
Peak Hour: AM
Count Date: 1/23/19

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**135**	**179**	**158**	**237**	**1370**	**231**	**128**	**363**	**308**	**78**	**282**	**97**	**3566**
ATI	48	11	10	11	119	14	17	37	120	124	108	59	678
Remove Villa Sport (Occupied)	0	0	0	0	0	0	0	0	0	0	0	0	0
Remove Pepper Lane Comm (Expired Entitlement)	0	0	-10	-9	0	0	0	0	0	0	0	0	-19
Net ATI	48	11	0	2	119	14	17	37	120	124	108	59	659
Background Conditions	**183**	**190**	**158**	**239**	**1489**	**245**	**145**	**400**	**428**	**202**	**390**	**156**	**4225**
Project Trips	0	0	4	3	3	1	2	0	0	0	4	0	17
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	4	3	3	1	2	0	0	0	4	0	17
Background Plus Project Conditions	**183**	**190**	**162**	**242**	**1492**	**246**	**147**	**400**	**428**	**202**	**394**	**156**	**4242**
Pending (Facchino)	7	0	0	0	124	0	0	0	31	16	76	0	254
Cumulative Conditions	**190**	**190**	**162**	**242**	**1616**	**246**	**147**	**400**	**459**	**218**	**470**	**156**	**4496**

Intersection Number: 2
Traffix Node Number: 3295
Intersection Name: Flickinger Avenue/Jackson Avenue and Berryessa Road
Peak Hour: AM
Count Date: 5/9/2018 (with growth adjustment)

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
2018 Counts	60	205	249	154	1198	288	466	369	273	112	607	24	4005
Existing Conditions	**62**	**210**	**255**	**158**	**1223**	**294**	**476**	**377**	**279**	**115**	**620**	**25**	**4094**
ATI	13	6	10	1	97	4	6	17	25	12	105	12	308
Remove Villa Sport (Occupied)	0	0	0	0	0	0	0	0	0	0	0	0	0
Remove Pepper Lane Comm (Expired Entitlement)	0	0	-10	0	0	0	0	-9	-9	0	-10	0	-38
Net ATI	13	6	0	1	97	4	6	8	16	12	95	12	270
Background Conditions	**75**	**216**	**255**	**159**	**1320**	**298**	**482**	**385**	**295**	**127**	**715**	**37**	**4364**
Project Trips	0	0	6	0	0	17	0	4	12	0	11	0	50
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	6	0	0	17	0	4	12	0	11	0	50
Background Plus Project Conditions	**75**	**216**	**261**	**159**	**1320**	**315**	**482**	**389**	**307**	**127**	**726**	**37**	**4414**
Pending (Facchino)	6	0	0	0	88	0	0	0	30	12	61	3	200
Cumulative Conditions	**81**	**216**	**261**	**159**	**1408**	**315**	**482**	**389**	**337**	**139**	**787**	**40**	**4614**

Intersection Number: 3
Traffix Node Number: 3595
Intersection Name: Jackson Avenue and Mabury Road
Peak Hour: AM
Count Date: 5/9/2018 (with growth adjustment)

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
2018 Counts	149	341	95	198	732	189	195	461	188	148	341	131	3168
Existing Conditions	**152**	**348**	**97**	**202**	**747**	**193**	**199**	**471**	**192**	**151**	**348**	**134**	**3234**
ATI	16	25	1	4	14	5	4	23	10	10	8	15	135
Remove Villa Sport (Occupied)	0	0	0	0	0	0	0	0	0	0	0	0	0
Remove Pepper Lane Comm (Expired Entitlement)	-7	-7	0	0	0	0	0	-8	0	0	0	-8	-30
Net ATI	9	18	1	4	14	5	4	15	10	10	8	7	105
Background Conditions	**161**	**366**	**98**	**206**	**761**	**198**	**203**	**486**	**202**	**161**	**356**	**141**	**3339**
Project Trips	1	1	3	4	0	0	0	2	0	0	0	2	13
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	1	1	3	4	0	0	0	2	0	0	0	2	13
Background Plus Project Conditions	**162**	**367**	**101**	**210**	**761**	**198**	**203**	**488**	**202**	**161**	**356**	**143**	**3352**
Pending (Facchino)	0	8	4	10	10	0	0	20	0	0	4	0	56
Cumulative Conditions	**162**	**375**	**105**	**220**	**771**	**198**	**203**	**508**	**202**	**161**	**360**	**143**	**3408**

Intersection Number: 4
Traffix Node Number: 3948
Intersection Name: I-680 and Berryessa Road
Peak Hour: AM
Count Date: 1/23/19

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**230**	**0**	**0**	**605**	**1599**	**0**	**260**	**0**	**0**	**602**	**735**	**0**	**4031**
	0			**0**	**0**					**0**			
ATI	0	0	0	31	49	0	11	0	0	63	71	0	225
Remove Villa Sport (Occupied)	0	0	0	0	0	0	-9	0	0	0	-18	0	-27
Remove Pepper Lane Comm (Expired Entitlement)	0	0	0	0	-15	0	0	0	0	0	-14	0	-29
Net ATI	0	0	0	31	34	0	2	0	0	63	39	0	169
Background Conditions	**230**	**0**	**0**	**636**	**1633**	**0**	**262**	**0**	**0**	**665**	**774**	**0**	**4200**
	0			**0**	**0**					**0**			
Project Trips	0	0	0	0	9	0	0	0	0	0	5	0	14
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	9	0	0	0	0	0	5	0	14
Background Plus Project Conditions	**230**	**0**	**0**	**636**	**1642**	**0**	**262**	**0**	**0**	**665**	**779**	**0**	**4214**
	0			**0**	**0**					**0**			
Pending (Facchino)	0	0	0	0	20	0	0	0	23	35	8	0	86
Cumulative Conditions	**230**	**0**	**0**	**636**	**1662**	**0**	**262**	**0**	**23**	**700**	**787**	**0**	**4300**
	0			**0**	**0**					**0**			

Intersection Number: 5
Traffix Node Number: 3293
Intersection Name: Capitol Avenue and Berryessa Road
Peak Hour: AM
Count Date: 1/23/19

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**440**	**194**	**35**	**16**	**861**	**93**	**107**	**463**	**850**	**202**	**574**	**268**	**4103**
ATI	44	17	4	6	26	6	9	25	85	42	20	38	322
Remove Villa Sport (Occupied)	-30	-10	-3	-3	0	0	0	-9	0	0	0	-27	-82
Remove Pepper Lane Comm (Expired Entitlement)	-8	0	0	0	0	0	0	0	-8	-7	0	-7	-30
Net ATI	6	7	1	3	26	6	9	16	77	35	20	4	210
Background Conditions	**446**	**201**	**36**	**19**	**887**	**99**	**116**	**479**	**927**	**237**	**594**	**272**	**4313**
Project Trips	2	0	0	0	4	0	0	0	2	1	3	1	13
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	2	0	0	0	4	0	0	0	2	1	3	1	13
Background Plus Project Conditions	**448**	**201**	**36**	**19**	**891**	**99**	**116**	**479**	**929**	**238**	**597**	**273**	**4326**
Pending (Facchino)	8	0	0	0	8	0	0	0	4	1	5	2	28
Cumulative Conditions	**456**	**201**	**36**	**19**	**899**	**99**	**116**	**479**	**933**	**239**	**602**	**275**	**4354**

Intersection Number: 1
Traffix Node Number: 3076
Intersection Name: Lundy Avenue and Berryessa Road *
Peak Hour: PM
Count Date: 12/11/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**133**	**537**	**439**	**152**	**439**	**201**	**151**	**223**	**142**	**274**	**988**	**141**	**3820**
ATI	84	39	28	14	152	19	16	22	161	134	135	59	863
Remove Villa Sport (Occupied)	0	0	0	0	0	0	0	0	0	0	0	0	0
Remove Pepper Lane Comm (Expired Entitlement)	0	0	-17	-11	0	0	0	0	0	0	0	0	-28
Net ATI	84	39	11	3	152	19	16	22	161	134	135	59	835
Background Conditions	**217**	**576**	**450**	**155**	**591**	**220**	**167**	**245**	**303**	**408**	**1123**	**200**	**4655**
Project Trips	0	0	6	7	7	3	3	0	0	0	6	0	32
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	6	7	7	3	3	0	0	0	6	0	32
Background Plus Project Conditions	**217**	**576**	**456**	**162**	**598**	**223**	**170**	**245**	**303**	**408**	**1129**	**200**	**4687**
Pending (Facchino)	6	0	0	0	94	0	0	0	21	38	154	0	313
Cumulative Conditions	**223**	**576**	**456**	**162**	**692**	**223**	**170**	**245**	**324**	**446**	**1283**	**200**	**5000**

Intersection Number: 2
Traffix Node Number: 3295
Intersection Name: Flickinger Avenue/Jackson Avenue and Berryessa Road
Peak Hour: PM
Count Date: 5/9/2018 (with growth adjustment)

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
2018 Counts	57	442	292	181	724	382	219	140	80	313	1088	56	3974
Existing Conditions	**59**	**451**	**298**	**185**	**739**	**390**	**224**	**143**	**82**	**320**	**1110**	**58**	**4059**
ATI	25	15	23	2	97	5	3	22	33	22	106	23	376
Remove Villa Sport (Occupied)	0	0	0	0	0	0	0	0	0	0	0	0	0
Remove Pepper Lane Comm (Expired Entitlement)	0	0	-17	0	0	0	0	-11	-11	0	-17	0	-56
Net ATI	25	15	6	2	97	5	3	11	22	22	89	23	320
Background Conditions	**84**	**466**	**304**	**187**	**836**	**395**	**227**	**154**	**104**	**342**	**1199**	**81**	**4379**
Project Trips	0	0	9	0	0	25	0	10	29	0	16	0	89
Passby	0	0	6	0	0	17	0	6	19	0	11	0	59
Total Project Trips	0	0	15	0	0	42	0	16	48	0	27	0	148
Background Plus Project Conditions	**84**	**466**	**319**	**187**	**836**	**437**	**227**	**170**	**152**	**342**	**1226**	**81**	**4527**
Pending (Facchino)	4	0	0	0	73	0	0	0	17	35	111	7	247
Cumulative Conditions	**88**	**466**	**319**	**187**	**909**	**437**	**227**	**170**	**169**	**377**	**1337**	**88**	**4774**

Intersection Number: 3
Traffix Node Number: 3595
Intersection Name: Jackson Avenue and Mabury Road
Peak Hour: PM
Count Date: 5/9/2018 (with growth adjustment)

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
2018 Counts	126	489	257	99	277	106	123	216	86	219	614	111	2723
Existing Conditions	**129**	**499**	**263**	**101**	**283**	**109**	**126**	**221**	**88**	**224**	**627**	**114**	**2784**
ATI	36	23	5	1	10	4	6	32	11	11	11	40	190
Remove Villa Sport (Occupied)	0	0	0	0	0	0	0	0	0	0	0	0	0
Remove Pepper Lane Comm (Expired Entitlement)	-8	-8	0	0	0	0	0	-13	0	0	0	-13	-42
Net ATI	28	15	5	1	10	4	6	19	11	11	11	27	148
Background Conditions	**157**	**514**	**268**	**102**	**293**	**113**	**132**	**240**	**99**	**235**	**638**	**141**	**2932**
Project Trips	3	3	7	6	0	0	0	3	0	0	0	3	25
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	3	3	7	6	0	0	0	3	0	0	0	3	25
Background Plus Project Conditions	**160**	**517**	**275**	**108**	**293**	**113**	**132**	**243**	**99**	**235**	**638**	**144**	**2957**
Pending (Facchino)	0	23	12	5	5	0	0	12	0	0	12	0	69
Cumulative Conditions	**160**	**540**	**287**	**113**	**298**	**113**	**132**	**255**	**99**	**235**	**650**	**144**	**3026**

Intersection Number: 4
Traffix Node Number: 3948
Intersection Name: I-680 and Berryessa Road
Peak Hour: PM
Count Date: 1/23/19

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**326**	**0**	**0**	**318**	**1130**	**0**	**602**	**0**	**0**	**425**	**1037**	**0**	**3838**
	0			**0**	**0**					**0**			
ATI	0	0	0	17	51	0	29	0	0	52	127	0	276
Remove Villa Sport (Occupied)	0	0	0	0	0	0	-25	0	0	0	-50	0	-75
Remove Pepper Lane Comm (Expired Entitlement)	0	0	0	0	-26	0	0	0	0	0	-16	0	-42
Net ATI	0	0	0	17	25	0	4	0	0	52	61	0	159
Background Conditions	**326**	**0**	**0**	**335**	**1155**	**0**	**606**	**0**	**0**	**477**	**1098**	**0**	**3997**
	0			**0**	**0**					**0**			
Project Trips	0	0	0	0	12	0	0	0	0	0	13	0	25
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	12	0	0	0	0	0	13	0	25
Background Plus Project Conditions	**326**	**0**	**0**	**335**	**1167**	**0**	**606**	**0**	**0**	**477**	**1111**	**0**	**4022**
	0			**0**	**0**					**0**			
Pending (Facchino)	0	0	0	0	11	0	0	0	21	58	23	0	113
Cumulative Conditions	**326**	**0**	**0**	**335**	**1178**	**0**	**606**	**0**	**21**	**535**	**1134**	**0**	**4135**
	0			**0**	**0**					**0**			

Intersection Number: 5
Traffix Node Number: 3293
Intersection Name: Capitol Avenue and Berryessa Road
Peak Hour: PM
Count Date: 1/23/19

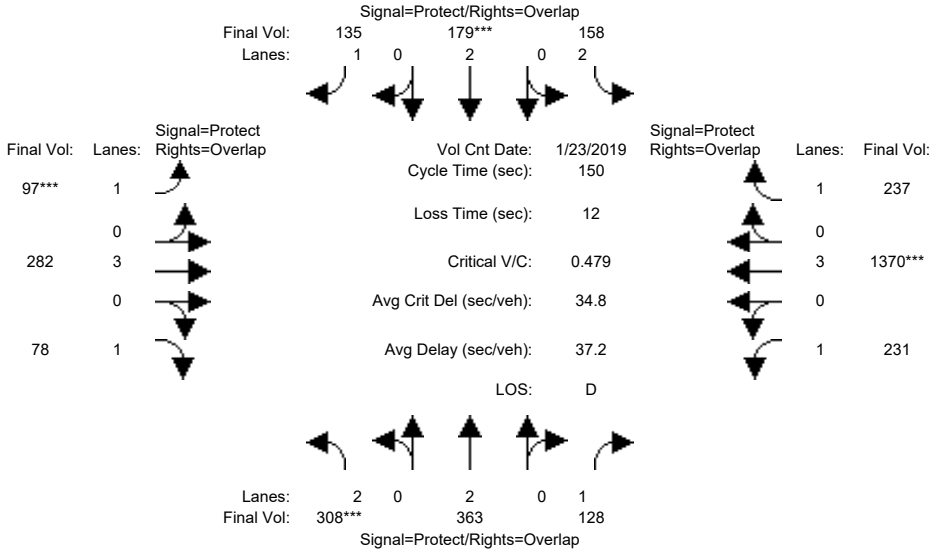
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**333**	**726**	**78**	**30**	**712**	**183**	**82**	**276**	**392**	**584**	**715**	**369**	**4480**
ATI	91	43	11	9	21	8	7	36	54	67	22	89	458
Remove Villa Sport (Occupied)	-69	-23	-8	-8	0	0	0	-25	0	0	0	-75	-208
Remove Pepper Lane Comm (Expired Entitlement)	-13	0	0	0	0	0	0	0	-13	-8	0	-8	-42
Net ATI	9	20	3	1	21	8	7	11	41	59	22	6	208
Background Conditions	**342**	**746**	**81**	**31**	**733**	**191**	**89**	**287**	**433**	**643**	**737**	**375**	**4688**
Project Trips	3	0	0	0	6	0	0	0	3	3	7	3	25
Passby	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	3	0	0	0	6	0	0	0	3	3	7	3	25
Background Plus Project Conditions	**345**	**746**	**81**	**31**	**739**	**191**	**89**	**287**	**436**	**646**	**744**	**378**	**4713**
Pending (Facchino)	3	0	0	0	6	0	0	0	2	4	10	9	34
Cumulative Conditions	**348**	**746**	**81**	**31**	**745**	**191**	**89**	**287**	**438**	**650**	**754**	**387**	**4747**

Appendix D
Intersection Level of Service Calculations

Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (AM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	308	363	128	158	179	135	97	282	78	231	1370	237
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	308	363	128	158	179	135	97	282	78	231	1370	237
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	308	363	128	158	179	135	97	282	78	231	1370	237
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	308	363	128	158	179	135	97	282	78	231	1370	237
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	308	363	128	158	179	135	97	282	78	231	1370	237
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	308	363	128	158	179	135	97	282	78	231	1370	237
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.07	0.05	0.05	0.08	0.06	0.05	0.04	0.13	0.24	0.14
Crit Moves:	****				****		****				****	
Green Time:	30.6	29.8	91.3	15.6	14.8	32.1	17.4	31.1	61.7	61.5	75.3	90.9
Volume/Cap:	0.48	0.48	0.12	0.48	0.48	0.36	0.48	0.24	0.11	0.32	0.48	0.22
Delay/Veh:	53.2	53.8	12.4	64.5	65.0	50.8	63.9	49.7	27.3	30.3	24.6	13.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.2	53.8	12.4	64.5	65.0	50.8	63.9	49.7	27.3	30.3	24.6	13.6
LOS by Move:	D	D	B	E	E	D	E	D	C	C	C	B
HCM2k95thQ:	14	14	5	8	8	11	9	7	5	14	24	10

Note: Queue reported is the number of cars per lane.

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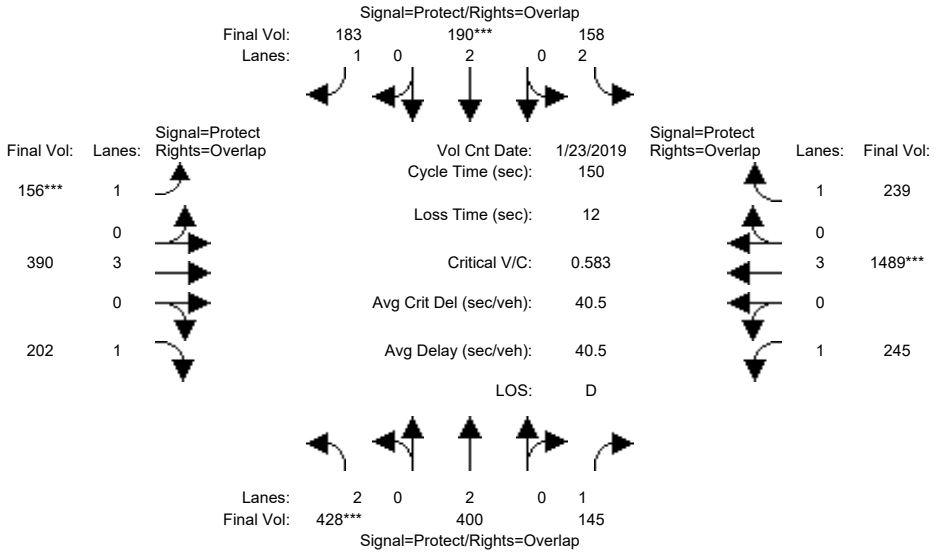
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (AM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	308	363	128	158	179	135	97	282	78	231	1370	237
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	308	363	128	158	179	135	97	282	78	231	1370	237
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	120	37	17	0	11	48	59	108	124	14	119	2
Initial Fut:	428	400	145	158	190	183	156	390	202	245	1489	239
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	428	400	145	158	190	183	156	390	202	245	1489	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	428	400	145	158	190	183	156	390	202	245	1489	239
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	428	400	145	158	190	183	156	390	202	245	1489	239
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.11	0.08	0.05	0.05	0.10	0.09	0.07	0.12	0.14	0.26	0.14
Crit Moves:	****				****		****				****	
Green Time:	35.0	32.4	93.0	15.4	12.9	35.8	22.9	29.6	64.6	60.6	67.2	82.7
Volume/Cap:	0.58	0.49	0.13	0.49	0.58	0.44	0.58	0.35	0.27	0.35	0.58	0.25
Delay/Veh:	52.2	52.0	11.9	64.7	68.7	49.3	62.3	52.1	27.7	31.3	31.3	17.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.2	52.0	11.9	64.7	68.7	49.3	62.3	52.1	27.7	31.3	31.3	17.6
LOS by Move:	D	D	B	E	E	D	E	D	C	C	C	B
HCM2k95thQ:	19	15	6	8	8	14	14	10	12	15	29	11

Note: Queue reported is the number of cars per lane.

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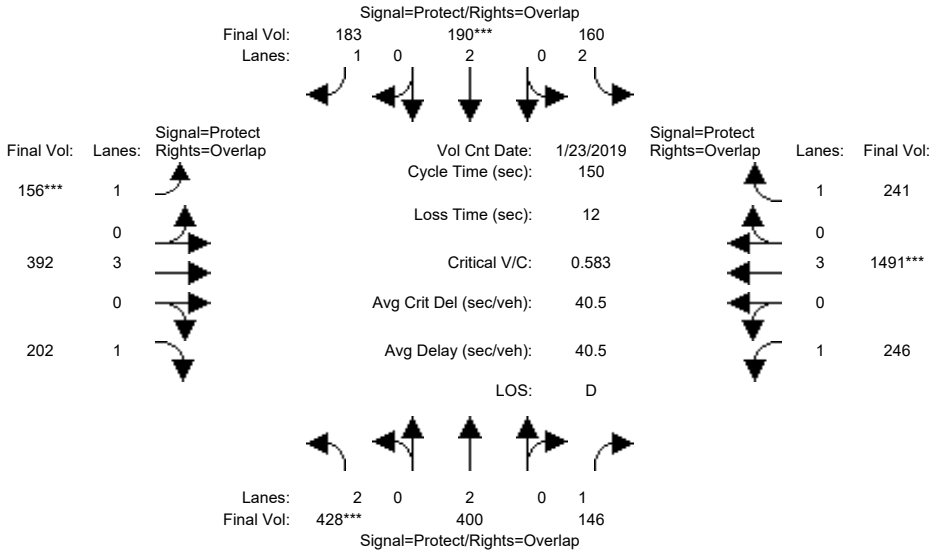
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (AM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	308	363	128	158	179	135	97	282	78	231	1370	237
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	308	363	128	158	179	135	97	282	78	231	1370	237
Added Vol:	0	0	1	2	0	0	0	2	0	1	2	2
ATI:	120	37	17	0	11	48	59	108	124	14	119	2
Initial Fut:	428	400	146	160	190	183	156	392	202	246	1491	241
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	428	400	146	160	190	183	156	392	202	246	1491	241
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	428	400	146	160	190	183	156	392	202	246	1491	241
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	428	400	146	160	190	183	156	392	202	246	1491	241
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.11	0.08	0.05	0.05	0.10	0.09	0.07	0.12	0.14	0.26	0.14
Crit Moves:	****				****		****				****	
Green Time:	34.9	32.2	92.8	15.6	12.9	35.8	22.9	29.6	64.6	60.6	67.3	82.8
Volume/Cap:	0.58	0.49	0.13	0.49	0.58	0.44	0.58	0.35	0.27	0.35	0.58	0.25
Delay/Veh:	52.3	52.1	12.0	64.6	68.7	49.3	62.4	52.0	27.7	31.3	31.2	17.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.3	52.1	12.0	64.6	68.7	49.3	62.4	52.0	27.7	31.3	31.2	17.6
LOS by Move:	D	D	B	E	E	D	E	D	C	C	C	B
HCM2k95thQ:	19	15	6	8	8	14	14	10	12	15	29	12

Note: Queue reported is the number of cars per lane.

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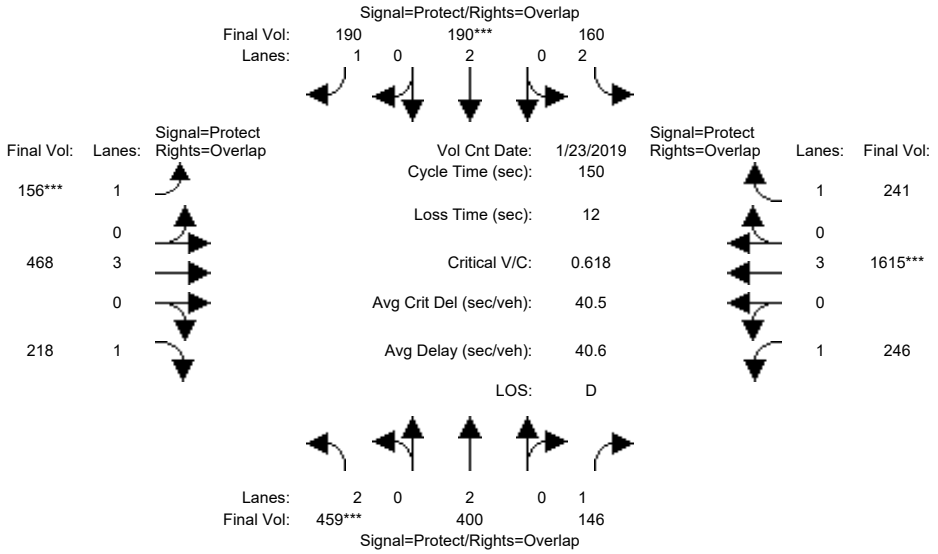
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (AM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	428	400	145	158	190	183	156	390	202	245	1489	239
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	428	400	145	158	190	183	156	390	202	245	1489	239
Added Vol:	0	0	1	2	0	0	0	2	0	1	2	2
ATI:	31	0	0	0	0	7	0	76	16	0	124	0
Initial Fut:	459	400	146	160	190	190	156	468	218	246	1615	241
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	459	400	146	160	190	190	156	468	218	246	1615	241
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	459	400	146	160	190	190	156	468	218	246	1615	241
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	459	400	146	160	190	190	156	468	218	246	1615	241
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.11	0.08	0.05	0.05	0.11	0.09	0.08	0.12	0.14	0.28	0.14
Crit Moves:	****				****		****				****	
Green Time:	35.4	32.1	89.2	15.5	12.1	33.8	21.7	33.4	68.7	57.1	68.8	84.3
Volume/Cap:	0.62	0.49	0.14	0.49	0.62	0.48	0.62	0.37	0.27	0.37	0.62	0.25
Delay/Veh:	52.8	52.3	13.5	64.7	70.5	51.4	64.9	49.6	25.3	33.8	31.1	16.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.8	52.3	13.5	64.7	70.5	51.4	64.9	49.6	25.3	33.8	31.1	16.8
LOS by Move:	D	D	B	E	E	D	E	D	C	C	C	B
HCM2k95thQ:	20	15	6	8	8	15	14	11	12	16	31	11

Note: Queue reported is the number of cars per lane.

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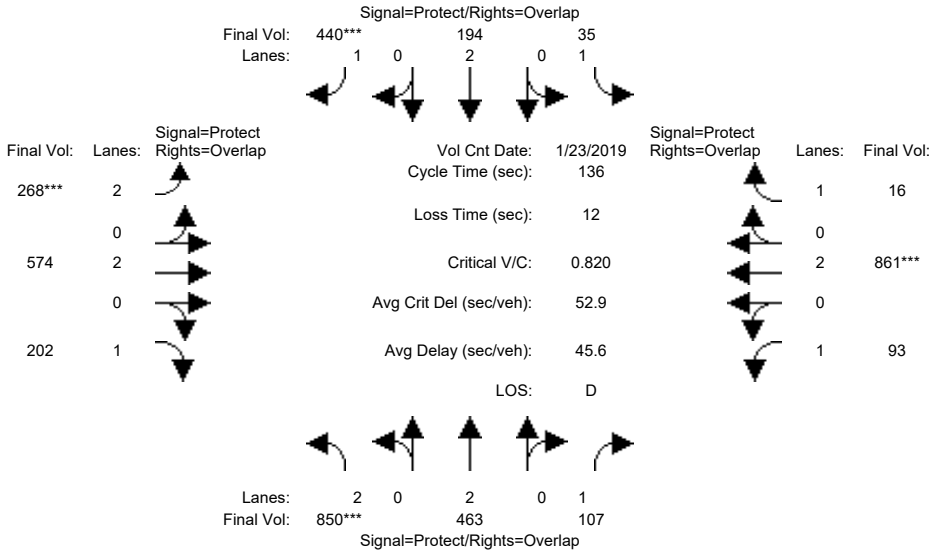
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (AM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	850	463	107	35	194	440	268	574	202	93	861	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	850	463	107	35	194	440	268	574	202	93	861	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	850	463	107	35	194	440	268	574	202	93	861	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	850	463	107	35	194	440	268	574	202	93	861	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	850	463	107	35	194	440	268	574	202	93	861	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	850	463	107	35	194	440	268	574	202	93	861	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.27	0.12	0.06	0.02	0.05	0.25	0.09	0.15	0.12	0.05	0.23	0.01
Crit Moves:	****					****	****				****	
Green Time:	44.7	50.8	64.3	21.5	27.6	41.7	14.1	38.2	83.0	13.4	37.6	59.0
Volume/Cap:	0.82	0.33	0.13	0.13	0.25	0.82	0.82	0.54	0.19	0.54	0.82	0.02
Delay/Veh:	47.2	30.5	20.2	49.4	45.7	53.4	74.8	41.9	11.8	61.6	51.3	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	30.5	20.2	49.4	45.7	53.4	74.8	41.9	11.8	61.6	51.3	22.0
LOS by Move:	D	C	C	D	D	D	E	D	B	E	D	C
HCM2k95thQ:	36	13	5	3	7	34	14	18	8	9	32	1

Note: Queue reported is the number of cars per lane.

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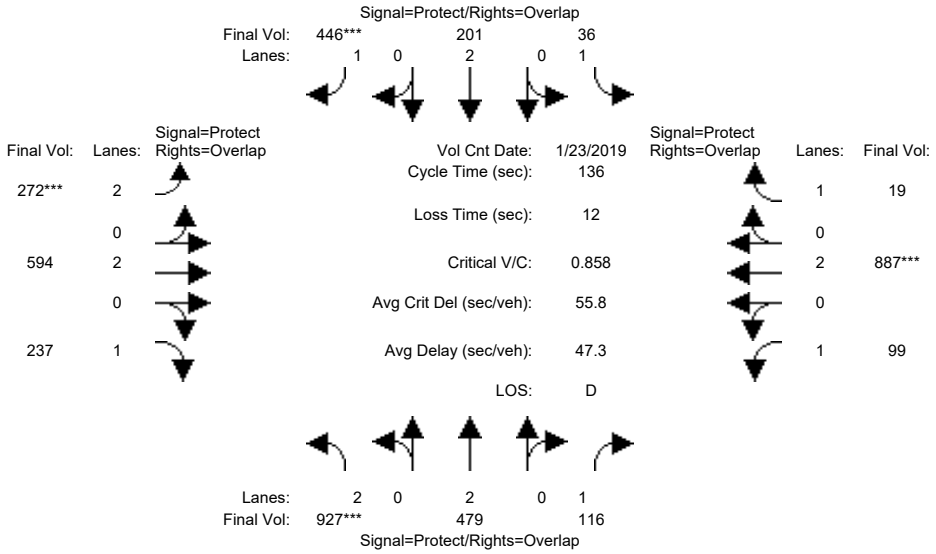
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (AM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	850	463	107	35	194	440	268	574	202	93	861	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	850	463	107	35	194	440	268	574	202	93	861	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	77	16	9	1	7	6	4	20	35	6	26	3
Initial Fut:	927	479	116	36	201	446	272	594	237	99	887	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	927	479	116	36	201	446	272	594	237	99	887	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	927	479	116	36	201	446	272	594	237	99	887	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	927	479	116	36	201	446	272	594	237	99	887	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.29	0.13	0.07	0.02	0.05	0.25	0.09	0.16	0.14	0.06	0.23	0.01
Crit Moves:	****					****	****				****	
Green Time:	46.6	52.1	65.5	21.3	26.7	40.4	13.7	37.2	83.8	13.5	37.0	58.2
Volume/Cap:	0.86	0.33	0.14	0.13	0.27	0.86	0.86	0.57	0.22	0.57	0.86	0.03
Delay/Veh:	48.6	29.8	19.6	49.6	46.6	58.5	80.4	43.3	11.7	63.0	54.3	22.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	29.8	19.6	49.6	46.6	58.5	80.4	43.3	11.7	63.0	54.3	22.5
LOS by Move:	D	C	B	D	D	E	F	D	B	E	D	C
HCM2k95thQ:	40	13	6	3	7	36	14	19	9	10	34	1

Note: Queue reported is the number of cars per lane.

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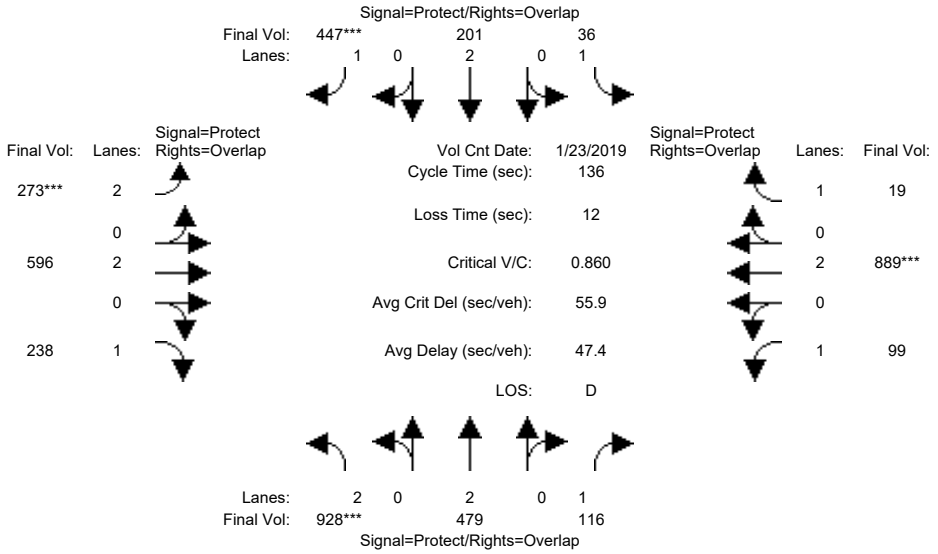
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (AM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	850	463	107	35	194	440	268	574	202	93	861	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	850	463	107	35	194	440	268	574	202	93	861	16
Added Vol:	1	0	0	0	0	1	1	2	1	0	2	0
ATI:	77	16	9	1	7	6	4	20	35	6	26	3
Initial Fut:	928	479	116	36	201	447	273	596	238	99	889	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	928	479	116	36	201	447	273	596	238	99	889	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	928	479	116	36	201	447	273	596	238	99	889	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	928	479	116	36	201	447	273	596	238	99	889	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.29	0.13	0.07	0.02	0.05	0.26	0.09	0.16	0.14	0.06	0.23	0.01
Crit Moves:	****					****	****				****	
Green Time:	46.6	52.0	65.5	21.2	26.7	40.4	13.7	37.3	83.9	13.4	37.0	58.3
Volume/Cap:	0.86	0.33	0.14	0.13	0.27	0.86	0.86	0.57	0.22	0.57	0.86	0.03
Delay/Veh:	48.8	29.8	19.7	49.6	46.6	58.7	80.6	43.3	11.7	63.1	54.4	22.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.8	29.8	19.7	49.6	46.6	58.7	80.6	43.3	11.7	63.1	54.4	22.5
LOS by Move:	D	C	B	D	D	E	F	D	B	E	D	C
HCM2k95thQ:	40	13	6	3	7	36	14	19	9	10	34	1

Note: Queue reported is the number of cars per lane.

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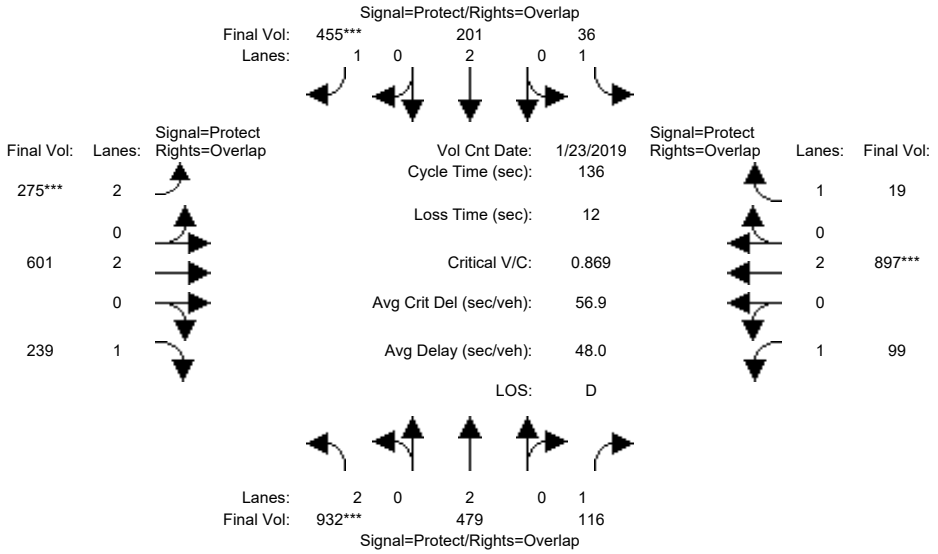
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (AM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	927	479	116	36	201	446	272	594	237	99	887	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	927	479	116	36	201	446	272	594	237	99	887	19
Added Vol:	1	0	0	0	0	1	1	2	1	0	2	0
ATI:	4	0	0	0	0	8	2	5	1	0	8	0
Initial Fut:	932	479	116	36	201	455	275	601	239	99	897	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	932	479	116	36	201	455	275	601	239	99	897	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	932	479	116	36	201	455	275	601	239	99	897	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	932	479	116	36	201	455	275	601	239	99	897	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.30	0.13	0.07	0.02	0.05	0.26	0.09	0.16	0.14	0.06	0.24	0.01
Crit Moves:	****					****	****				****	
Green Time:	46.3	52.1	65.4	21.3	27.0	40.7	13.7	37.3	83.6	13.3	37.0	58.2
Volume/Cap:	0.87	0.33	0.14	0.13	0.27	0.87	0.87	0.58	0.22	0.58	0.87	0.03
Delay/Veh:	49.7	29.7	19.7	49.6	46.3	59.5	82.0	43.4	11.8	63.4	55.2	22.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.7	29.7	19.7	49.6	46.3	59.5	82.0	43.4	11.8	63.4	55.2	22.5
LOS by Move:	D	C	B	D	D	E	F	D	B	E	E	C
HCM2k95thQ:	41	13	6	3	7	37	14	19	9	10	35	1

Note: Queue reported is the number of cars per lane.

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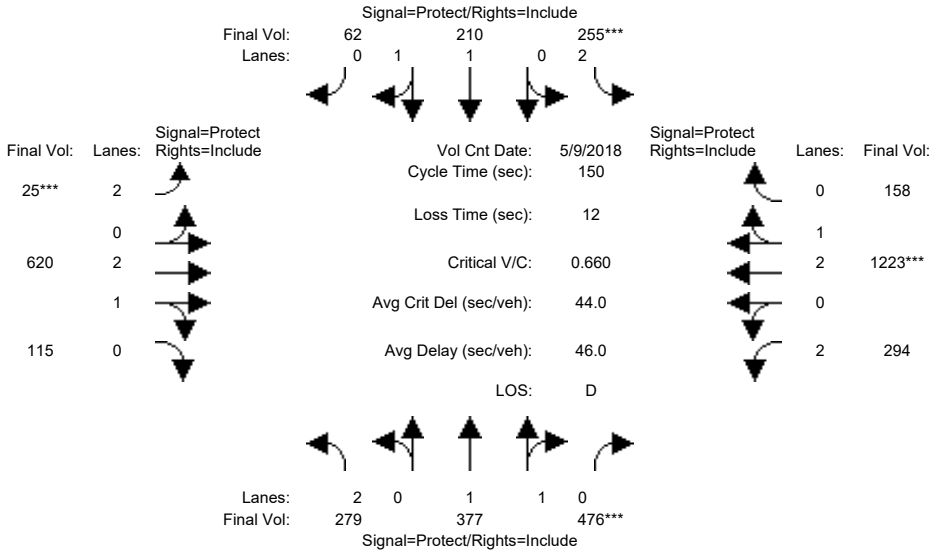
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (AM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	279	377	476	255	210	62	25	620	115	294	1223	158
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	279	377	476	255	210	62	25	620	115	294	1223	158
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	279	377	476	255	210	62	25	620	115	294	1223	158
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	279	377	476	255	210	62	25	620	115	294	1223	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	279	377	476	255	210	62	25	620	115	294	1223	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	279	377	476	255	210	62	25	620	115	294	1223	158
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.53	0.47	2.00	2.51	0.49	2.00	2.64	0.36
Final Sat.:	3150	1900	1750	3150	2856	843	3150	4723	876	3150	4958	641
Capacity Analysis Module:												
Vol/Sat:	0.09	0.20	0.27	0.08	0.07	0.07	0.01	0.13	0.13	0.09	0.25	0.25
Crit Moves:			****	****			****				****	
Green Time:	42.1	59.4	59.4	17.7	35.0	35.0	7.0	35.6	35.6	25.3	53.9	53.9
Volume/Cap:	0.32	0.50	0.69	0.69	0.32	0.32	0.17	0.55	0.55	0.55	0.69	0.69
Delay/Veh:	42.8	34.3	39.2	68.8	47.8	47.8	69.3	50.7	50.7	58.4	41.9	41.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.8	34.3	39.2	68.8	47.8	47.8	69.3	50.7	50.7	58.4	41.9	41.9
LOS by Move:	D	C	D	E	D	D	E	D	D	E	D	D
HCM2k95thQ:	12	23	34	13	10	10	2	19	19	15	32	32

Note: Queue reported is the number of cars per lane.

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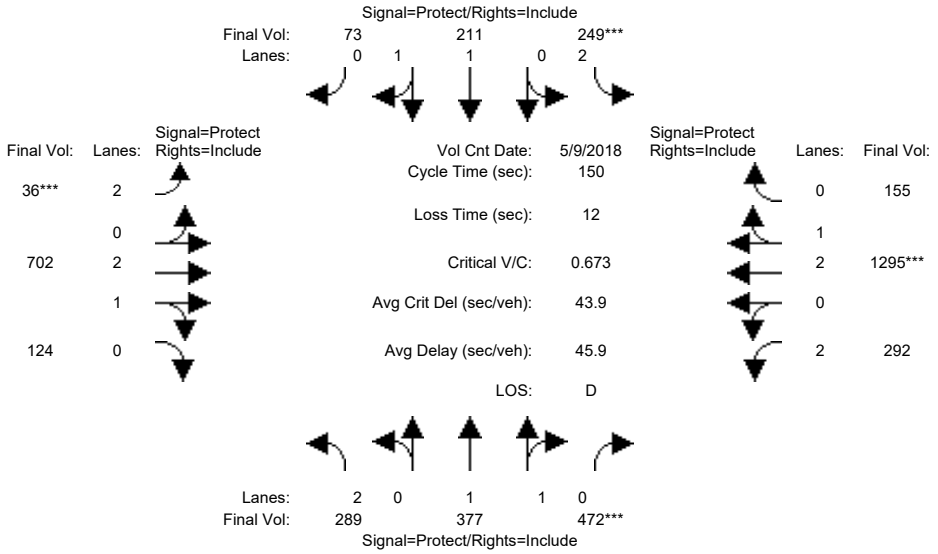
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (AM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	273	369	466	249	205	60	24	607	112	288	1198	154
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	273	369	466	249	205	60	24	607	112	288	1198	154
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	16	8	6	0	6	13	12	95	12	4	97	1
Initial Fut:	289	377	472	249	211	73	36	702	124	292	1295	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	289	377	472	249	211	73	36	702	124	292	1295	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	289	377	472	249	211	73	36	702	124	292	1295	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	289	377	472	249	211	73	36	702	124	292	1295	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.47	0.53	2.00	2.53	0.47	2.00	2.67	0.33
Final Sat.:	3150	1900	1750	3150	2748	951	3150	4758	840	3150	5001	599
Capacity Analysis Module:												
Vol/Sat:	0.09	0.20	0.27	0.08	0.08	0.08	0.01	0.15	0.15	0.09	0.26	0.26
Crit Moves:			****	****			****				****	
Green Time:	40.9	58.1	58.1	17.0	34.2	34.2	7.0	38.6	38.6	24.2	55.8	55.8
Volume/Cap:	0.34	0.51	0.70	0.70	0.34	0.34	0.24	0.57	0.57	0.57	0.70	0.70
Delay/Veh:	43.9	35.4	40.3	69.9	48.6	48.6	69.8	49.1	49.1	59.7	40.9	40.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	35.4	40.3	69.9	48.6	48.6	69.8	49.1	49.1	59.7	40.9	40.9
LOS by Move:	D	D	D	E	D	D	E	D	D	E	D	D
HCM2k95thQ:	12	23	34	13	10	10	2	21	21	15	33	33

Note: Queue reported is the number of cars per lane.

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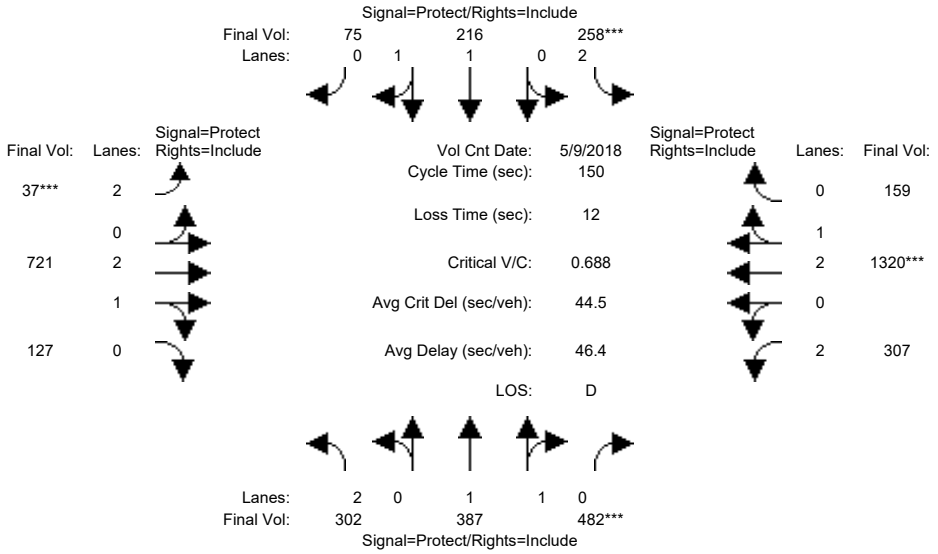
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (AM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	279	377	476	255	210	62	25	620	115	294	1223	158
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	279	377	476	255	210	62	25	620	115	294	1223	158
Added Vol:	7	2	0	3	0	0	0	6	0	9	0	0
ATI:	16	8	6	0	6	13	12	95	12	4	97	1
Initial Fut:	302	387	482	258	216	75	37	721	127	307	1320	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	302	387	482	258	216	75	37	721	127	307	1320	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	302	387	482	258	216	75	37	721	127	307	1320	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	302	387	482	258	216	75	37	721	127	307	1320	159
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.47	0.53	2.00	2.53	0.47	2.00	2.67	0.33
Final Sat.:	3150	1900	1750	3150	2746	953	3150	4760	838	3150	4997	602
Capacity Analysis Module:												
Vol/Sat:	0.10	0.20	0.28	0.08	0.08	0.08	0.01	0.15	0.15	0.10	0.26	0.26
Crit Moves:			****	****			****				****	
Green Time:	41.4	58.1	58.1	17.3	33.9	33.9	7.0	38.1	38.1	24.5	55.7	55.7
Volume/Cap:	0.35	0.53	0.71	0.71	0.35	0.35	0.25	0.60	0.60	0.60	0.71	0.71
Delay/Veh:	43.7	35.7	40.9	70.5	49.0	49.0	69.9	49.8	49.8	60.0	41.5	41.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.7	35.7	40.9	70.5	49.0	49.0	69.9	49.8	49.8	60.0	41.5	41.5
LOS by Move:	D	D	D	E	D	D	E	D	D	E	D	D
HCM2k95thQ:	13	24	35	14	11	11	3	22	22	16	34	34

Note: Queue reported is the number of cars per lane.

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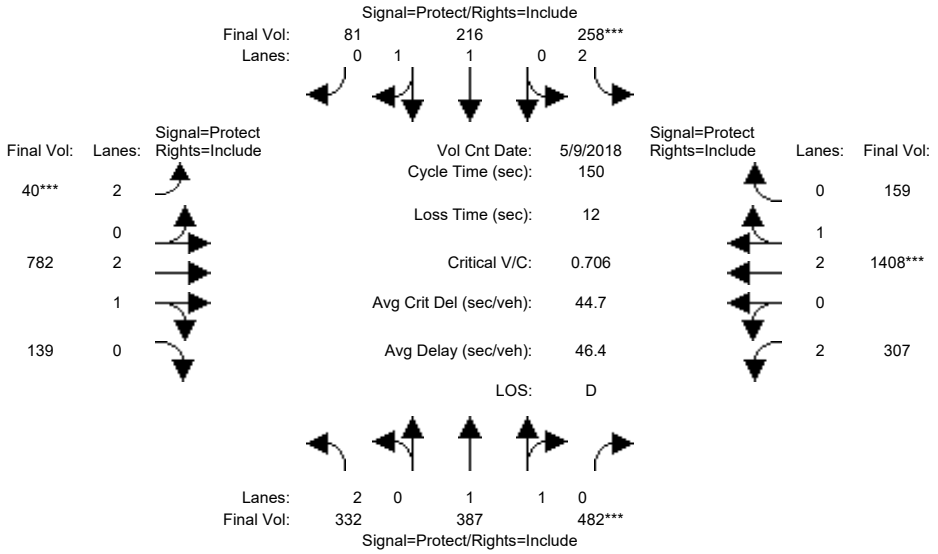
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (AM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	295	385	482	255	216	75	37	715	127	298	1320	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	385	482	255	216	75	37	715	127	298	1320	159
Added Vol:	7	2	0	3	0	0	0	6	0	9	0	0
ATI:	30	0	0	0	0	6	3	61	12	0	88	0
Initial Fut:	332	387	482	258	216	81	40	782	139	307	1408	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	332	387	482	258	216	81	40	782	139	307	1408	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	332	387	482	258	216	81	40	782	139	307	1408	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	332	387	482	258	216	81	40	782	139	307	1408	159
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.44	0.56	2.00	2.53	0.47	2.00	2.68	0.32
Final Sat.:	3150	1900	1750	3150	2690	1009	3150	4754	845	3150	5031	568
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.28	0.08	0.08	0.08	0.01	0.16	0.16	0.10	0.28	0.28
Crit Moves:			****	****			****				****	
Green Time:	41.7	56.6	56.6	16.8	31.8	31.8	7.0	40.5	40.5	24.0	57.5	57.5
Volume/Cap:	0.38	0.54	0.73	0.73	0.38	0.38	0.27	0.61	0.61	0.61	0.73	0.73
Delay/Veh:	44.0	36.9	42.4	71.9	51.0	51.0	70.0	48.5	48.5	60.8	40.9	40.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.0	36.9	42.4	71.9	51.0	51.0	70.0	48.5	48.5	60.8	40.9	40.9
LOS by Move:	D	D	D	E	D	D	E	D	D	E	D	D
HCM2k95thQ:	14	24	36	14	11	11	3	23	23	16	36	36

Note: Queue reported is the number of cars per lane.

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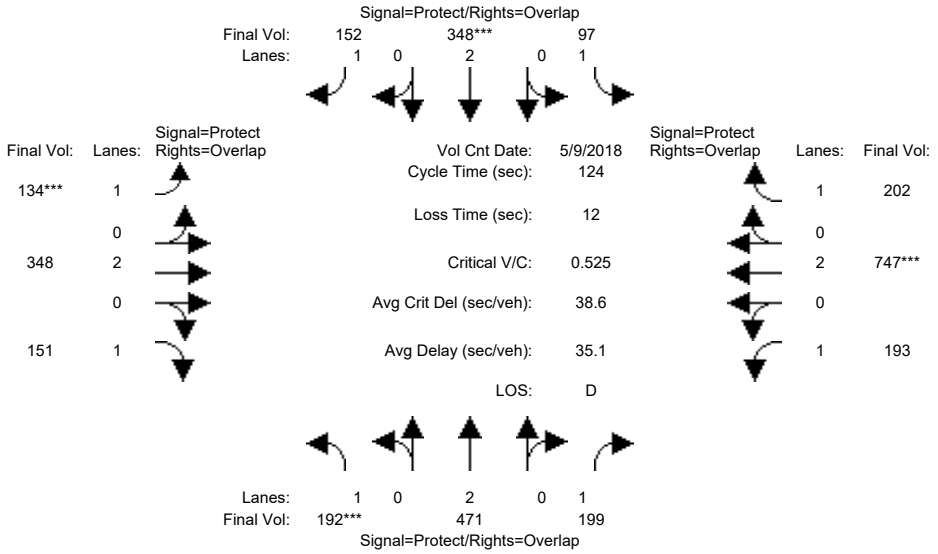
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (AM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	192	471	199	97	348	152	134	348	151	193	747	202
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	192	471	199	97	348	152	134	348	151	193	747	202
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	192	471	199	97	348	152	134	348	151	193	747	202
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	192	471	199	97	348	152	134	348	151	193	747	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	192	471	199	97	348	152	134	348	151	193	747	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	192	471	199	97	348	152	134	348	151	193	747	202
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.12	0.11	0.06	0.09	0.09	0.08	0.09	0.09	0.11	0.20	0.12
Crit Moves:	****				****		****				****	
Green Time:	25.9	32.6	67.9	14.9	21.6	39.7	18.1	29.3	55.2	35.2	46.4	61.3
Volume/Cap:	0.53	0.47	0.21	0.46	0.53	0.27	0.53	0.39	0.19	0.39	0.53	0.23
Delay/Veh:	45.0	38.8	14.4	52.5	47.3	31.6	51.0	40.1	21.0	36.2	30.6	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.0	38.8	14.4	52.5	47.3	31.6	51.0	40.1	21.0	36.2	30.6	18.1
LOS by Move:	D	D	B	D	D	C	D	D	C	D	C	B
HCM2k95thQ:	14	15	8	8	12	9	10	10	7	12	20	9

Note: Queue reported is the number of cars per lane.

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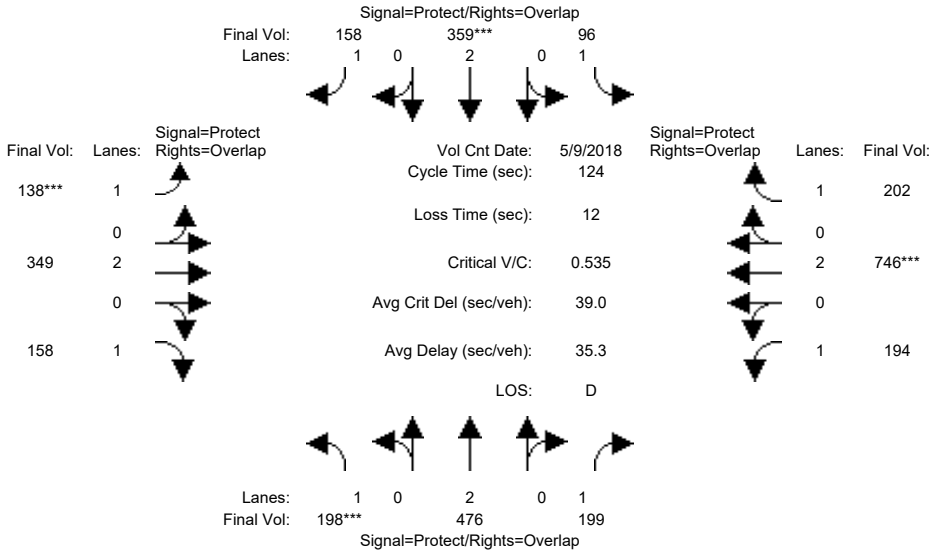
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (AM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	188	461	195	95	341	149	131	341	148	189	732	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	461	195	95	341	149	131	341	148	189	732	198
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	10	15	4	1	18	9	7	8	10	5	14	4
Initial Fut:	198	476	199	96	359	158	138	349	158	194	746	202
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	198	476	199	96	359	158	138	349	158	194	746	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	476	199	96	359	158	138	349	158	194	746	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	198	476	199	96	359	158	138	349	158	194	746	202
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.13	0.11	0.05	0.09	0.09	0.08	0.09	0.09	0.11	0.20	0.12
Crit Moves:	****				****		****				****	
Green Time:	26.2	33.2	68.1	15.0	21.9	40.2	18.3	28.9	55.2	34.9	45.5	60.5
Volume/Cap:	0.53	0.47	0.21	0.45	0.53	0.28	0.53	0.39	0.20	0.39	0.53	0.24
Delay/Veh:	45.0	38.3	14.3	52.3	47.2	31.4	51.1	40.4	21.1	36.5	31.3	18.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.0	38.3	14.3	52.3	47.2	31.4	51.1	40.4	21.1	36.5	31.3	18.5
LOS by Move:	D	D	B	D	D	C	D	D	C	D	C	B
HCM2k95thQ:	15	15	8	8	13	9	10	11	8	12	20	9

Note: Queue reported is the number of cars per lane.

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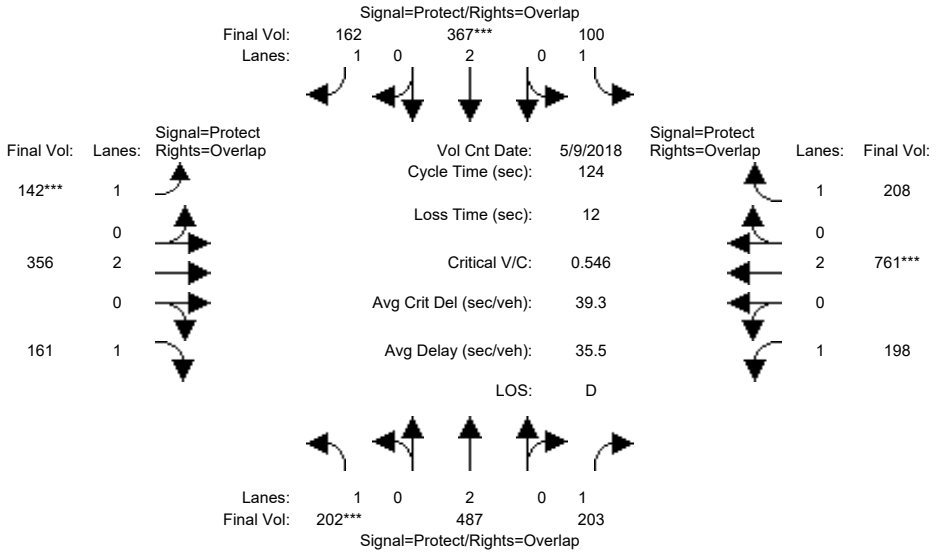
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (AM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	192	471	199	97	348	152	134	348	151	193	747	202
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	192	471	199	97	348	152	134	348	151	193	747	202
Added Vol:	0	1	0	2	1	1	1	0	0	0	0	2
ATI:	10	15	4	1	18	9	7	8	10	5	14	4
Initial Fut:	202	487	203	100	367	162	142	356	161	198	761	208
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	202	487	203	100	367	162	142	356	161	198	761	208
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	202	487	203	100	367	162	142	356	161	198	761	208
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	202	487	203	100	367	162	142	356	161	198	761	208
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.13	0.12	0.06	0.10	0.09	0.08	0.09	0.09	0.11	0.20	0.12
Crit Moves:	****				****		****				****	
Green Time:	26.2	33.3	68.2	14.8	21.9	40.3	18.4	28.9	55.1	34.9	45.5	60.3
Volume/Cap:	0.55	0.48	0.21	0.48	0.55	0.28	0.55	0.40	0.21	0.40	0.55	0.24
Delay/Veh:	45.3	38.4	14.3	52.7	47.5	31.4	51.3	40.5	21.2	36.6	31.6	18.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.3	38.4	14.3	52.7	47.5	31.4	51.3	40.5	21.2	36.6	31.6	18.7
LOS by Move:	D	D	B	D	D	C	D	D	C	D	C	B
HCM2k95thQ:	15	15	8	9	13	10	10	11	8	13	21	10

Note: Queue reported is the number of cars per lane.

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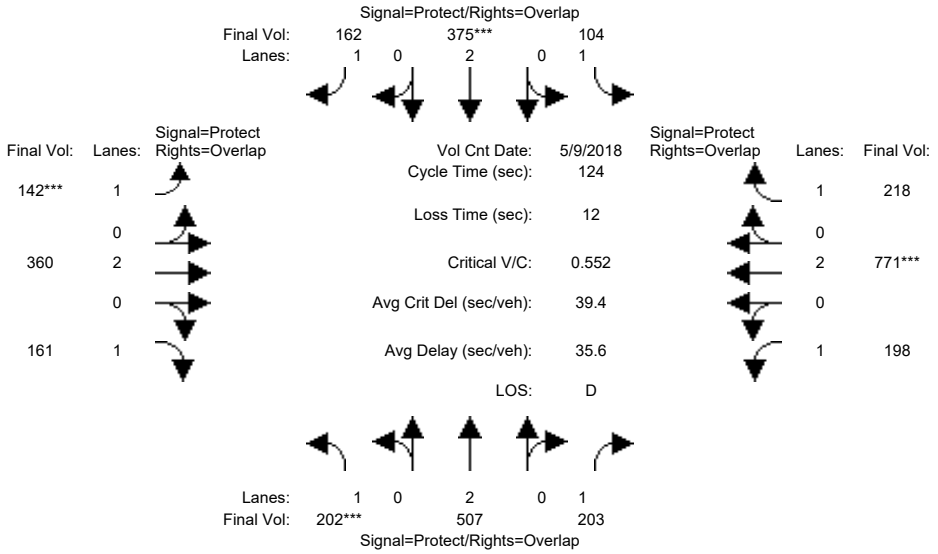
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (AM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	202	486	203	98	366	161	141	356	161	198	761	206
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	202	486	203	98	366	161	141	356	161	198	761	206
Added Vol:	0	1	0	2	1	1	1	0	0	0	0	2
ATI:	0	20	0	4	8	0	0	4	0	0	10	10
Initial Fut:	202	507	203	104	375	162	142	360	161	198	771	218
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	202	507	203	104	375	162	142	360	161	198	771	218
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	202	507	203	104	375	162	142	360	161	198	771	218
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	202	507	203	104	375	162	142	360	161	198	771	218
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.13	0.12	0.06	0.10	0.09	0.08	0.09	0.09	0.11	0.20	0.12
Crit Moves:	****				****		****				****	
Green Time:	26.0	33.3	68.1	14.8	22.2	40.4	18.2	29.1	55.1	34.8	45.6	60.5
Volume/Cap:	0.55	0.50	0.21	0.50	0.55	0.28	0.55	0.40	0.21	0.40	0.55	0.26
Delay/Veh:	45.6	38.7	14.4	52.9	47.4	31.3	51.6	40.4	21.2	36.8	31.6	18.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.6	38.7	14.4	52.9	47.4	31.3	51.6	40.4	21.2	36.8	31.6	18.8
LOS by Move:	D	D	B	D	D	C	D	D	C	D	C	B
HCM2k95thQ:	15	16	8	9	13	10	10	11	8	13	21	10

Note: Queue reported is the number of cars per lane.

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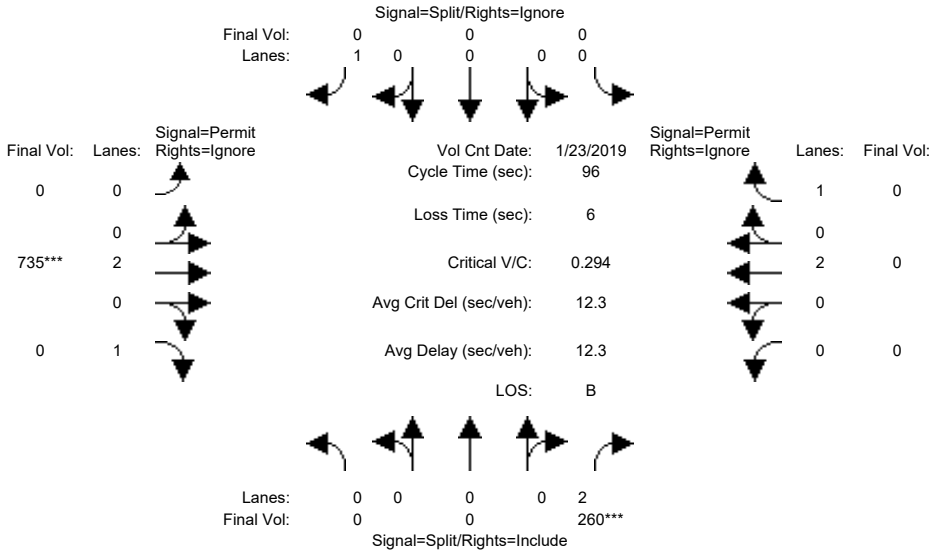
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (AM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	260	0	0	230	0	735	602	0	1599	605
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	260	0	0	230	0	735	602	0	1599	605
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	260	0	0	230	0	735	602	0	1599	605
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	260	0	0	0	0	735	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	260	0	0	0	0	735	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	260	0	0	0	0	735	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	3150	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	26.9	0.0	0.0	0.0	0.0	63.1	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	27.3	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	27.3	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	7	0	0	0	0	9	0	0	0	0

Note: Queue reported is the number of cars per lane.

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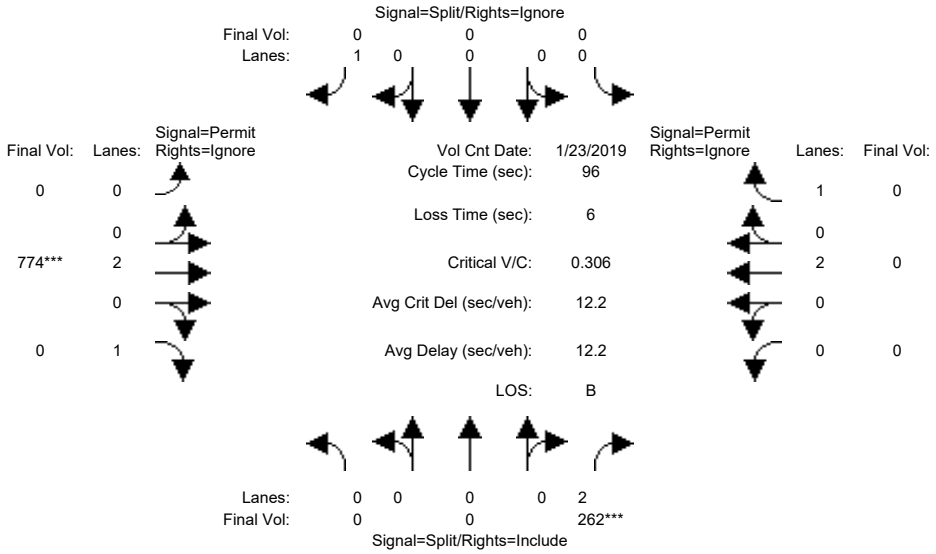
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (AM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	260	0	0	230	0	735	602	0	1599	605
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	260	0	0	230	0	735	602	0	1599	605
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	2	0	0	0	0	39	63	0	34	31
Initial Fut:	0	0	262	0	0	230	0	774	665	0	1633	636
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	262	0	0	0	0	774	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	262	0	0	0	0	774	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	262	0	0	0	0	774	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	3150	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	26.1	0.0	0.0	0.0	0.0	63.9	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	28.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	28.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	7	0	0	0	0	9	0	0	0	0

Note: Queue reported is the number of cars per lane.

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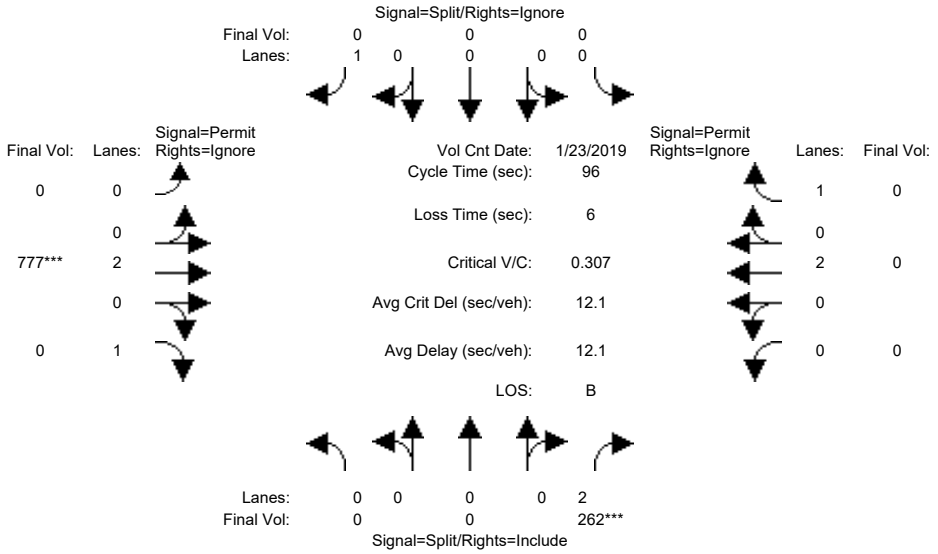
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (AM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	260	0	0	230	0	735	602	0	1599	605
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	260	0	0	230	0	735	602	0	1599	605
Added Vol:	0	0	0	0	0	0	0	3	0	0	5	0
ATI:	0	0	2	0	0	0	0	39	63	0	34	31
Initial Fut:	0	0	262	0	0	230	0	777	665	0	1638	636
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	262	0	0	0	0	777	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	262	0	0	0	0	777	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	262	0	0	0	0	777	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	3150	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	26.0	0.0	0.0	0.0	0.0	64.0	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	28.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	28.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	7	0	0	0	0	9	0	0	0	0

Note: Queue reported is the number of cars per lane.

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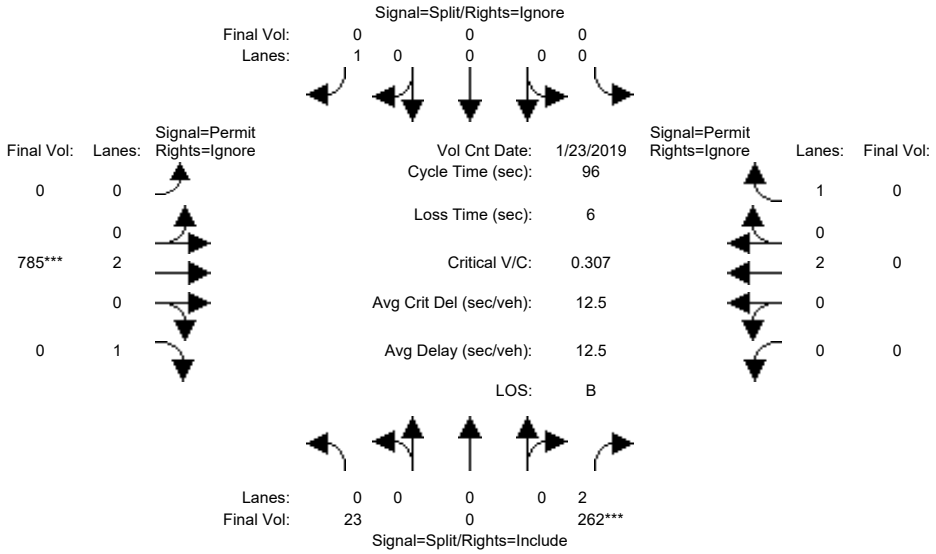
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (AM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	262	0	0	230	0	774	665	0	1633	636
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	262	0	0	230	0	774	665	0	1633	636
Added Vol:	0	0	0	0	0	0	0	3	0	0	5	0
ATI:	23	0	0	0	0	0	0	8	35	0	20	0
Initial Fut:	23	0	262	0	0	230	0	785	700	0	1658	636
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	23	0	262	0	0	0	0	785	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	0	262	0	0	0	0	785	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	23	0	262	0	0	0	0	785	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.15	0.00	1.85	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	261	0	3239	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.08	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	26.9	0.0	26.9	0.0	0.0	0.0	0.0	63.1	0.0	0.0	0.0	0.0
Volume/Cap:	0.31	0.00	0.29	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
Delay/Veh:	27.5	0.0	27.2	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.5	0.0	27.2	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	7	0	7	0	0	0	0	10	0	0	0	0

Note: Queue reported is the number of cars per lane.

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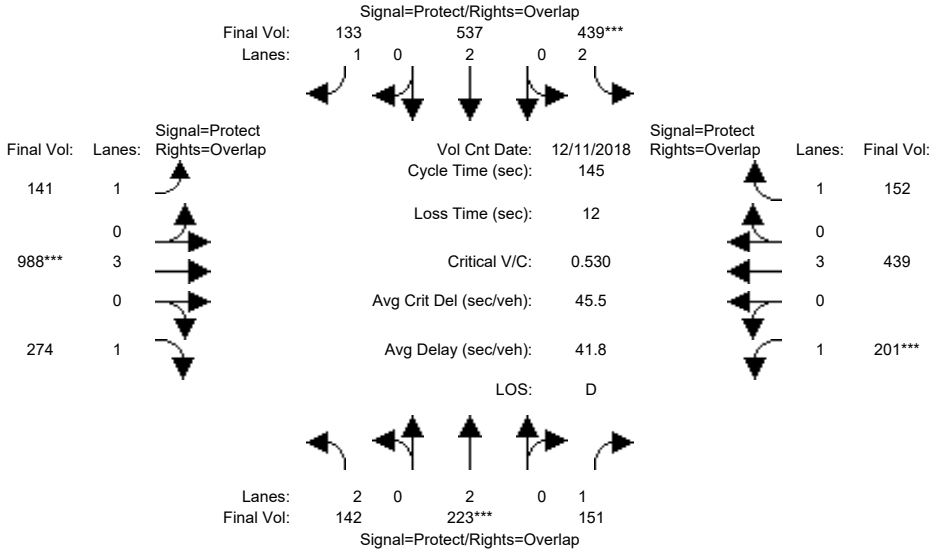
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (PM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Dec 2018 <<												
Base Vol:	142	223	151	439	537	133	141	988	274	201	439	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	223	151	439	537	133	141	988	274	201	439	152
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	142	223	151	439	537	133	141	988	274	201	439	152
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	142	223	151	439	537	133	141	988	274	201	439	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	223	151	439	537	133	141	988	274	201	439	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	142	223	151	439	537	133	141	988	274	201	439	152
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.06	0.09	0.14	0.14	0.08	0.08	0.17	0.16	0.11	0.08	0.09
Crit Moves:		****		****				****		****		
Green Time:	13.8	16.1	47.5	38.1	40.4	80.7	40.3	47.4	61.2	31.4	38.5	76.6
Volume/Cap:	0.47	0.53	0.26	0.53	0.51	0.14	0.29	0.53	0.37	0.53	0.29	0.16
Delay/Veh:	63.3	62.2	36.1	46.4	44.4	15.5	41.4	40.0	29.0	51.7	42.5	17.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.3	62.2	36.1	46.4	44.4	15.5	41.4	40.0	29.0	51.7	42.5	17.7
LOS by Move:	E	E	D	D	D	B	D	D	C	D	D	B
HCM2k95thQ:	7	9	10	18	18	6	10	21	16	16	10	7

Note: Queue reported is the number of cars per lane.

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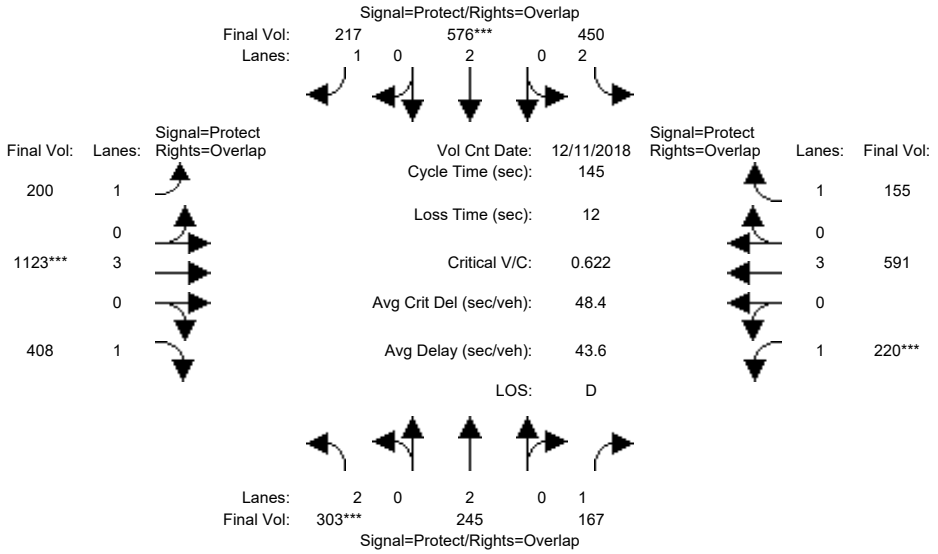
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (PM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Dec 2018 <<												
Base Vol:	142	223	151	439	537	133	141	988	274	201	439	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	223	151	439	537	133	141	988	274	201	439	152
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	161	22	16	11	39	84	59	135	134	19	152	3
Initial Fut:	303	245	167	450	576	217	200	1123	408	220	591	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	303	245	167	450	576	217	200	1123	408	220	591	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	303	245	167	450	576	217	200	1123	408	220	591	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	303	245	167	450	576	217	200	1123	408	220	591	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.06	0.10	0.14	0.15	0.12	0.11	0.20	0.23	0.13	0.10	0.09
Crit Moves:	****				****			****		****		
Green Time:	22.4	18.8	48.1	39.0	35.3	74.8	39.4	45.9	68.4	29.3	35.8	74.7
Volume/Cap:	0.62	0.50	0.29	0.53	0.62	0.24	0.42	0.62	0.49	0.62	0.42	0.17
Delay/Veh:	59.8	59.5	36.1	45.9	50.2	19.5	44.0	42.8	26.9	56.2	46.1	18.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.8	59.5	36.1	45.9	50.2	19.5	44.0	42.8	26.9	56.2	46.1	18.8
LOS by Move:	E	E	D	D	D	B	D	D	C	E	D	B
HCM2k95thQ:	14	10	11	18	20	11	14	25	23	18	13	8

Note: Queue reported is the number of cars per lane.

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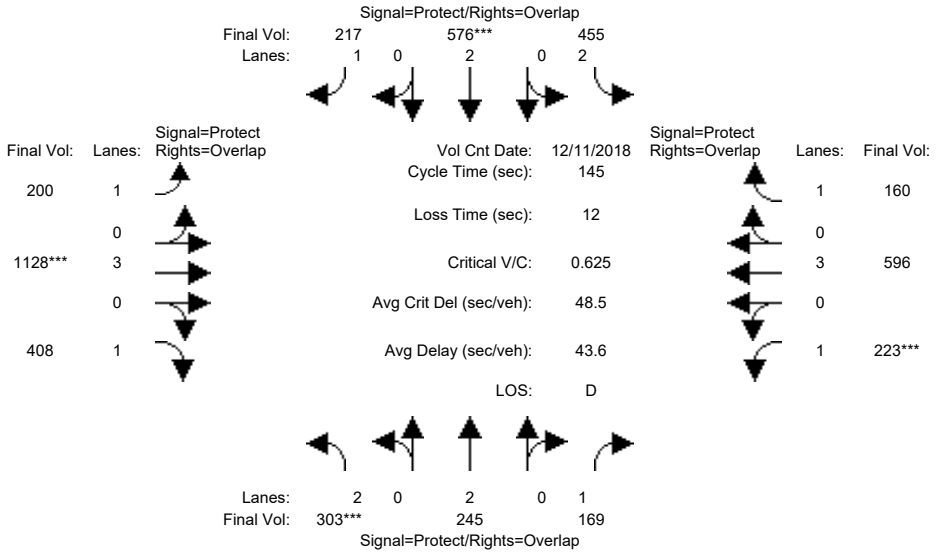
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (PM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Dec 2018 <<												
Base Vol:	142	223	151	439	537	133	141	988	274	201	439	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	223	151	439	537	133	141	988	274	201	439	152
Added Vol:	0	0	2	5	0	0	0	5	0	3	5	5
ATI:	161	22	16	11	39	84	59	135	134	19	152	3
Initial Fut:	303	245	169	455	576	217	200	1128	408	223	596	160
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	303	245	169	455	576	217	200	1128	408	223	596	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	303	245	169	455	576	217	200	1128	408	223	596	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	303	245	169	455	576	217	200	1128	408	223	596	160
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.06	0.10	0.14	0.15	0.12	0.11	0.20	0.23	0.13	0.10	0.09
Crit Moves:	****				****			****			****	
Green Time:	22.3	18.6	48.2	38.9	35.2	74.6	39.4	45.9	68.2	29.6	36.1	75.0
Volume/Cap:	0.62	0.50	0.29	0.54	0.62	0.24	0.42	0.62	0.50	0.62	0.42	0.18
Delay/Veh:	60.0	59.7	36.1	46.1	50.4	19.6	44.0	42.9	27.0	56.1	45.9	18.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.0	59.7	36.1	46.1	50.4	19.6	44.0	42.9	27.0	56.1	45.9	18.7
LOS by Move:	E	E	D	D	D	B	D	D	C	E	D	B
HCM2k95thQ:	14	10	11	19	20	11	14	25	23	18	14	8

Note: Queue reported is the number of cars per lane.

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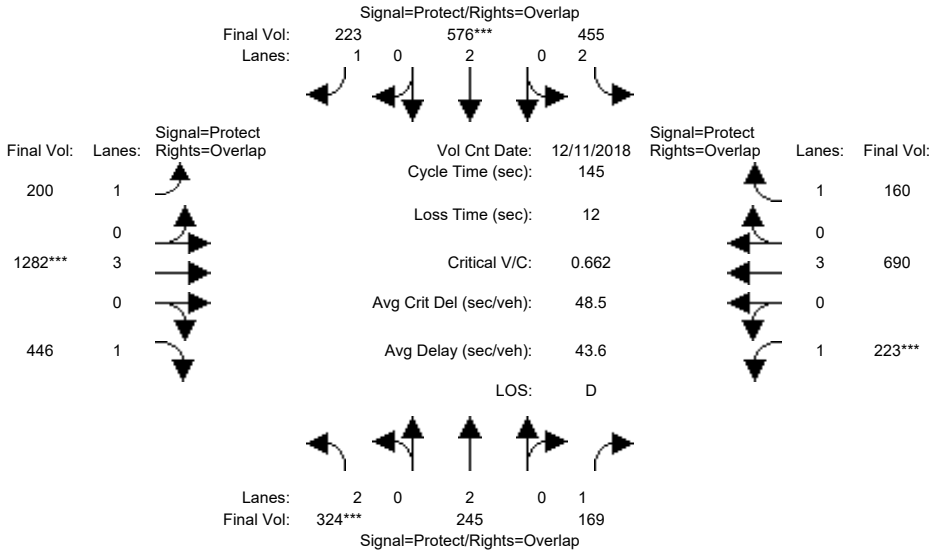
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (PM)

Intersection #3076: BERRYESSA/LUNDY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Dec 2018 <<												
Base Vol:	303	245	167	450	576	217	200	1123	408	220	591	155
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	303	245	167	450	576	217	200	1123	408	220	591	155
Added Vol:	0	0	2	5	0	0	0	5	0	3	5	5
ATI:	21	0	0	0	0	6	0	154	38	0	94	0
Initial Fut:	324	245	169	455	576	223	200	1282	446	223	690	160
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	324	245	169	455	576	223	200	1282	446	223	690	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	324	245	169	455	576	223	200	1282	446	223	690	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	324	245	169	455	576	223	200	1282	446	223	690	160
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.06	0.10	0.14	0.15	0.13	0.11	0.22	0.25	0.13	0.12	0.09
Crit Moves:	****				****			****			****	
Green Time:	22.5	18.0	46.0	37.7	33.2	70.7	37.5	49.3	71.8	27.9	39.7	77.5
Volume/Cap:	0.66	0.52	0.30	0.55	0.66	0.26	0.44	0.66	0.51	0.66	0.44	0.17
Delay/Veh:	61.0	60.5	37.8	47.2	52.7	22.0	45.7	41.6	25.3	59.0	43.7	17.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.0	60.5	37.8	47.2	52.7	22.0	45.7	41.6	25.3	59.0	43.7	17.4
LOS by Move:	E	E	D	D	D	C	D	D	C	E	D	B
HCM2k95thQ:	15	10	11	19	21	12	15	28	25	18	15	7

Note: Queue reported is the number of cars per lane.

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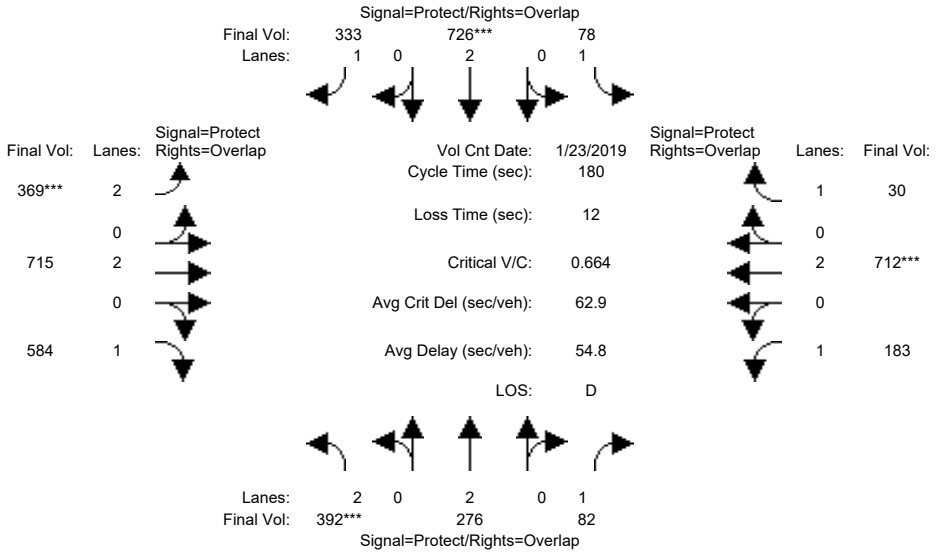
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (PM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	392	276	82	78	726	333	369	715	584	183	712	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	392	276	82	78	726	333	369	715	584	183	712	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	392	276	82	78	726	333	369	715	584	183	712	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	392	276	82	78	726	333	369	715	584	183	712	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	392	276	82	78	726	333	369	715	584	183	712	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	392	276	82	78	726	333	369	715	584	183	712	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.07	0.05	0.04	0.19	0.19	0.12	0.19	0.33	0.10	0.19	0.02
Crit Moves:	****				****		****				****	
Green Time:	33.7	53.0	80.5	32.5	51.8	83.5	31.7	55.0	88.7	27.5	50.8	83.3
Volume/Cap:	0.66	0.25	0.10	0.25	0.66	0.41	0.66	0.62	0.68	0.68	0.66	0.04
Delay/Veh:	70.7	48.4	28.9	63.7	58.0	32.3	72.2	54.4	36.9	79.3	58.7	26.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.7	48.4	28.9	63.7	58.0	32.3	72.2	54.4	36.9	79.3	58.7	26.5
LOS by Move:	E	D	C	E	E	C	E	D	D	E	E	C
HCM2k95thQ:	23	11	5	8	31	23	20	28	42	21	30	2

Note: Queue reported is the number of cars per lane.

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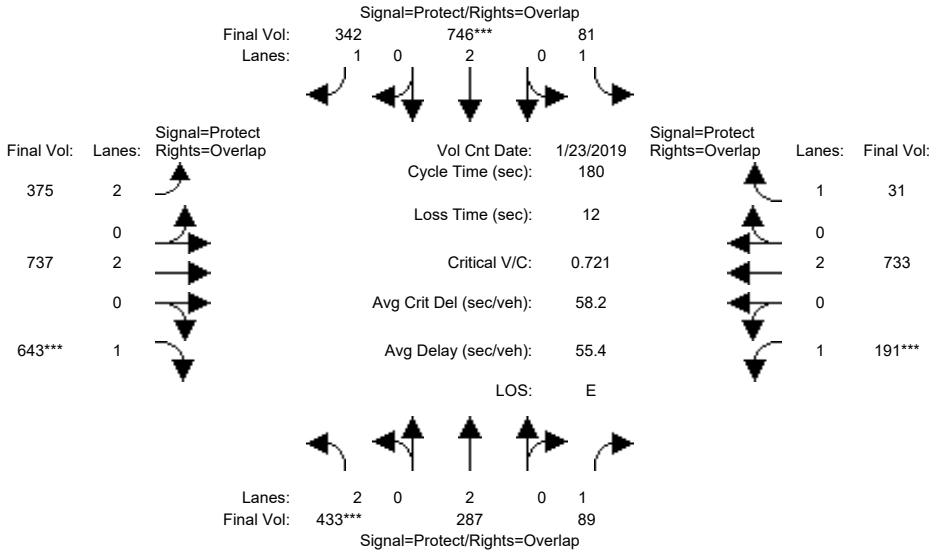
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (PM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	392	276	82	78	726	333	369	715	584	183	712	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	392	276	82	78	726	333	369	715	584	183	712	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	41	11	7	3	20	9	6	22	59	8	21	1
Initial Fut:	433	287	89	81	746	342	375	737	643	191	733	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	433	287	89	81	746	342	375	737	643	191	733	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	433	287	89	81	746	342	375	737	643	191	733	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	433	287	89	81	746	342	375	737	643	191	733	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.08	0.05	0.05	0.20	0.20	0.12	0.19	0.37	0.11	0.19	0.02
Crit Moves:	****				****				****	****		
Green Time:	34.3	51.7	78.9	31.7	49.0	81.3	32.3	57.4	91.7	27.2	52.4	84.0
Volume/Cap:	0.72	0.26	0.12	0.26	0.72	0.43	0.66	0.61	0.72	0.72	0.66	0.04
Delay/Veh:	72.6	49.6	30.0	64.5	61.8	34.0	71.7	52.7	37.1	82.1	57.6	26.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.6	49.6	30.0	64.5	61.8	34.0	71.7	52.7	37.1	82.1	57.6	26.1
LOS by Move:	E	D	C	E	E	C	E	D	D	F	E	C
HCM2k95thQ:	26	11	6	8	33	24	21	29	47	22	31	2

Note: Queue reported is the number of cars per lane.

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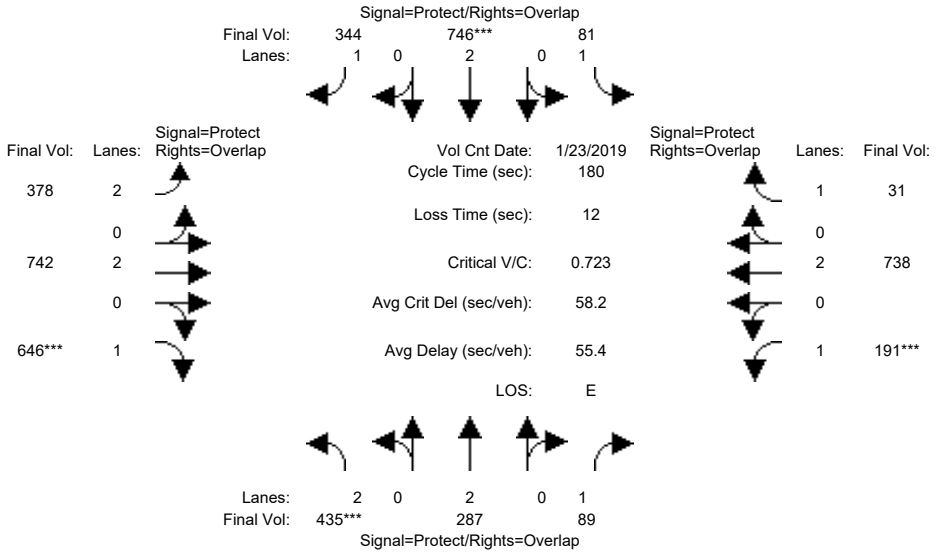
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (PM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	392	276	82	78	726	333	369	715	584	183	712	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	392	276	82	78	726	333	369	715	584	183	712	30
Added Vol:	2	0	0	0	0	2	3	5	3	0	5	0
ATI:	41	11	7	3	20	9	6	22	59	8	21	1
Initial Fut:	435	287	89	81	746	344	378	742	646	191	738	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	435	287	89	81	746	344	378	742	646	191	738	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	435	287	89	81	746	344	378	742	646	191	738	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	435	287	89	81	746	344	378	742	646	191	738	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.08	0.05	0.05	0.20	0.20	0.12	0.20	0.37	0.11	0.19	0.02
Crit Moves:	****				****				****	****		
Green Time:	34.4	51.6	78.8	31.6	48.9	81.2	32.4	57.5	91.9	27.2	52.4	84.0
Volume/Cap:	0.72	0.26	0.12	0.26	0.72	0.44	0.67	0.61	0.72	0.72	0.67	0.04
Delay/Veh:	72.6	49.6	30.0	64.6	62.0	34.1	71.9	52.7	37.1	82.3	57.7	26.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.6	49.6	30.0	64.6	62.0	34.1	71.9	52.7	37.1	82.3	57.7	26.1
LOS by Move:	E	D	C	E	E	C	E	D	D	F	E	C
HCM2k95thQ:	26	11	6	8	33	24	21	29	47	22	31	2

Note: Queue reported is the number of cars per lane.

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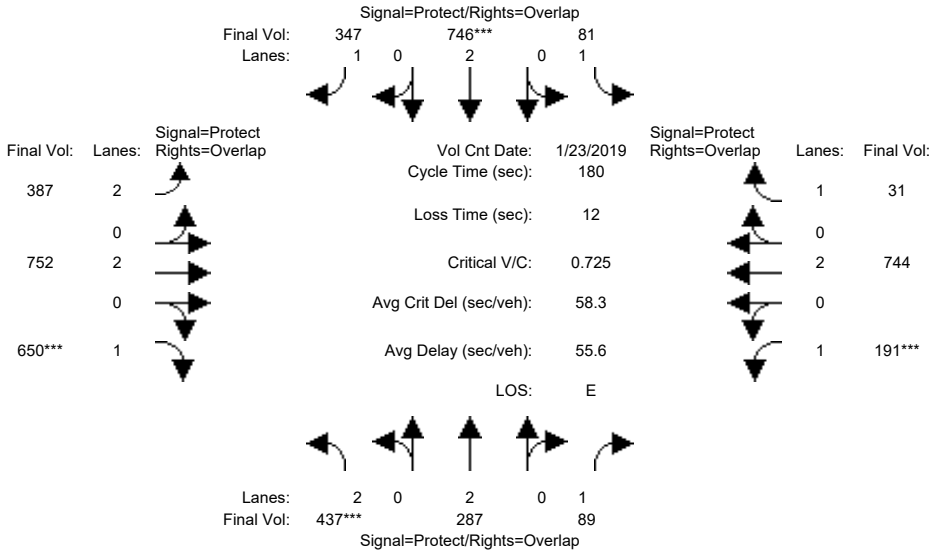
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (PM)

Intersection #3293: BERRYESSA/CAPITOL



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	433	287	89	81	746	342	375	737	643	191	733	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	433	287	89	81	746	342	375	737	643	191	733	31
Added Vol:	2	0	0	0	0	2	3	5	3	0	5	0
ATI:	2	0	0	0	0	3	9	10	4	0	6	0
Initial Fut:	437	287	89	81	746	347	387	752	650	191	744	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	437	287	89	81	746	347	387	752	650	191	744	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	437	287	89	81	746	347	387	752	650	191	744	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	437	287	89	81	746	347	387	752	650	191	744	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.08	0.05	0.05	0.20	0.20	0.12	0.20	0.37	0.11	0.20	0.02
Crit Moves:	****				****				****	****		
Green Time:	34.4	51.6	78.6	31.6	48.7	81.4	32.7	57.8	92.2	27.1	52.1	83.7
Volume/Cap:	0.73	0.26	0.12	0.26	0.73	0.44	0.68	0.62	0.73	0.73	0.68	0.04
Delay/Veh:	72.7	49.7	30.1	64.6	62.2	34.0	71.9	52.7	37.1	82.5	58.2	26.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.7	49.7	30.1	64.6	62.2	34.0	71.9	52.7	37.1	82.5	58.2	26.2
LOS by Move:	E	D	C	E	E	C	E	D	D	F	E	C
HCM2k95thQ:	26	11	6	8	33	24	21	29	48	22	31	2

Note: Queue reported is the number of cars per lane.

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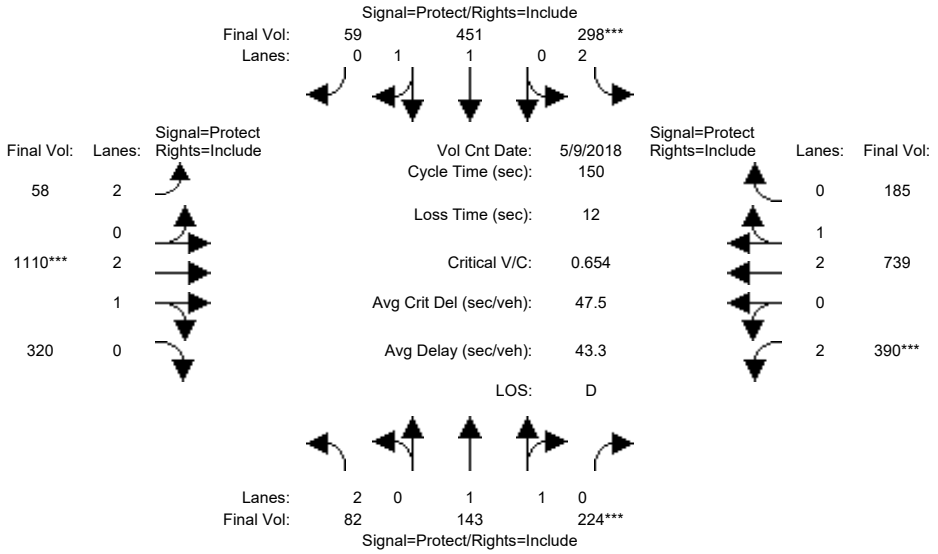
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (PM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	82	143	224	298	451	59	58	1110	320	390	739	185
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	143	224	298	451	59	58	1110	320	390	739	185
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	143	224	298	451	59	58	1110	320	390	739	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	82	143	224	298	451	59	58	1110	320	390	739	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	143	224	298	451	59	58	1110	320	390	739	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	143	224	298	451	59	58	1110	320	390	739	185
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.76	0.24	2.00	2.30	0.70	2.00	2.38	0.62
Final Sat.:	3150	1900	1750	3150	3272	428	3150	4345	1253	3150	4477	1121
Capacity Analysis Module:												
Vol/Sat:	0.03	0.08	0.13	0.09	0.14	0.14	0.02	0.26	0.26	0.12	0.17	0.17
Crit Moves:			****	****				****		****		
Green Time:	12.9	29.3	29.3	21.7	38.1	38.1	19.2	58.6	58.6	28.4	67.8	67.8
Volume/Cap:	0.30	0.38	0.65	0.65	0.54	0.54	0.14	0.65	0.65	0.65	0.37	0.37
Delay/Veh:	65.0	52.7	58.4	64.0	49.0	49.0	58.3	38.1	38.1	58.9	27.1	27.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.0	52.7	58.4	64.0	49.0	49.0	58.3	38.1	38.1	58.9	27.1	27.1
LOS by Move:	E	D	E	E	D	D	E	D	D	E	C	C
HCM2k95thQ:	5	11	20	15	19	19	3	31	31	20	17	17

Note: Queue reported is the number of cars per lane.

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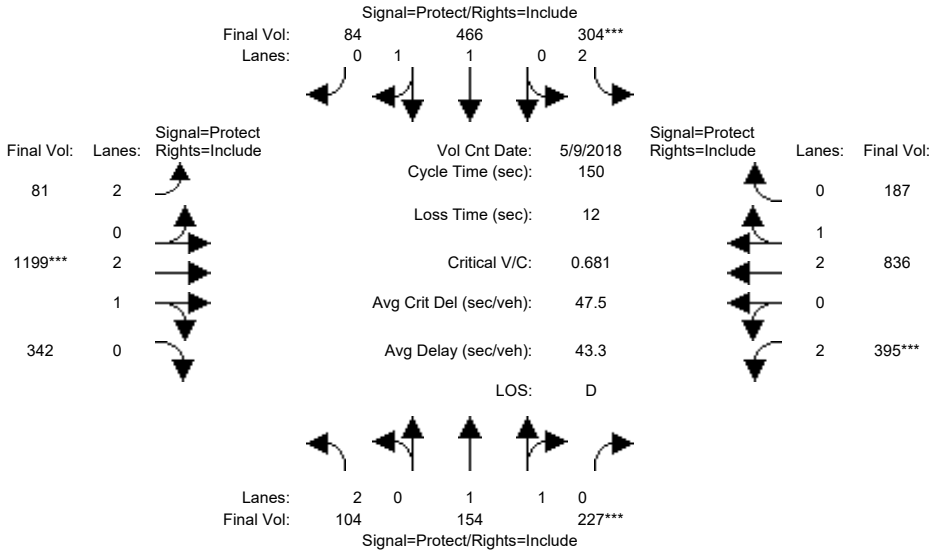
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (PM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	82	143	224	298	451	59	58	1110	320	390	739	185
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	143	224	298	451	59	58	1110	320	390	739	185
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	22	11	3	6	15	25	23	89	22	5	97	2
Initial Fut:	104	154	227	304	466	84	81	1199	342	395	836	187
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	104	154	227	304	466	84	81	1199	342	395	836	187
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	154	227	304	466	84	81	1199	342	395	836	187
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	104	154	227	304	466	84	81	1199	342	395	836	187
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.69	0.31	2.00	2.31	0.69	2.00	2.43	0.57
Final Sat.:	3150	1900	1750	3150	3134	565	3150	4356	1242	3150	4575	1023
Capacity Analysis Module:												
Vol/Sat:	0.03	0.08	0.13	0.10	0.15	0.15	0.03	0.28	0.28	0.13	0.18	0.18
Crit Moves:			****	****				****		****		
Green Time:	11.9	28.6	28.6	21.2	37.9	37.9	17.9	60.6	60.6	27.6	70.3	70.3
Volume/Cap:	0.42	0.43	0.68	0.68	0.59	0.59	0.21	0.68	0.68	0.68	0.39	0.39
Delay/Veh:	66.9	53.8	59.9	65.4	50.2	50.2	60.0	37.6	37.6	60.4	26.0	26.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.9	53.8	59.9	65.4	50.2	50.2	60.0	37.6	37.6	60.4	26.0	26.0
LOS by Move:	E	D	E	E	D	D	E	D	D	E	C	C
HCM2k95thQ:	6	12	21	15	20	20	4	34	34	20	19	19

Note: Queue reported is the number of cars per lane.

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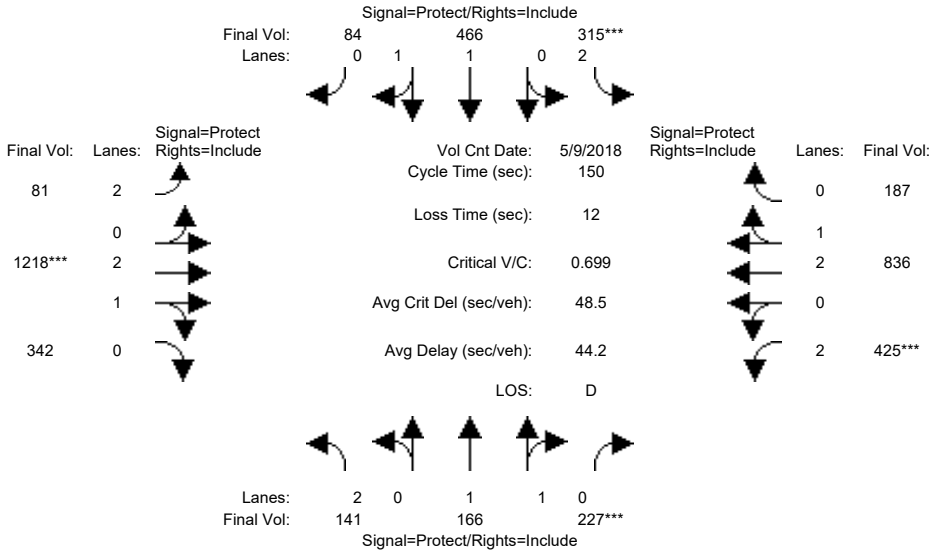
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (PM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	82	143	224	298	451	59	58	1110	320	390	739	185
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	143	224	298	451	59	58	1110	320	390	739	185
Added Vol:	24	8	0	7	0	0	0	12	0	20	0	0
ATI:	35	15	3	10	15	25	23	96	22	15	97	2
Initial Fut:	141	166	227	315	466	84	81	1218	342	425	836	187
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	141	166	227	315	466	84	81	1218	342	425	836	187
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	166	227	315	466	84	81	1218	342	425	836	187
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	141	166	227	315	466	84	81	1218	342	425	836	187
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.69	0.31	2.00	2.32	0.68	2.00	2.43	0.57
Final Sat.:	3150	1900	1750	3150	3134	565	3150	4371	1227	3150	4575	1023
Capacity Analysis Module:												
Vol/Sat:	0.04	0.09	0.13	0.10	0.15	0.15	0.03	0.28	0.28	0.13	0.18	0.18
Crit Moves:			****	****				****		****		
Green Time:	11.8	27.8	27.8	21.5	37.5	37.5	18.0	59.8	59.8	28.9	70.7	70.7
Volume/Cap:	0.57	0.47	0.70	0.70	0.59	0.59	0.21	0.70	0.70	0.70	0.39	0.39
Delay/Veh:	69.8	54.9	61.1	66.0	50.6	50.6	59.9	38.6	38.6	60.1	25.8	25.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.8	54.9	61.1	66.0	50.6	50.6	59.9	38.6	38.6	60.1	25.8	25.8
LOS by Move:	E	D	E	E	D	D	E	D	D	E	C	C
HCM2k95thQ:	9	13	21	16	20	20	4	35	35	22	18	18

Note: Queue reported is the number of cars per lane.

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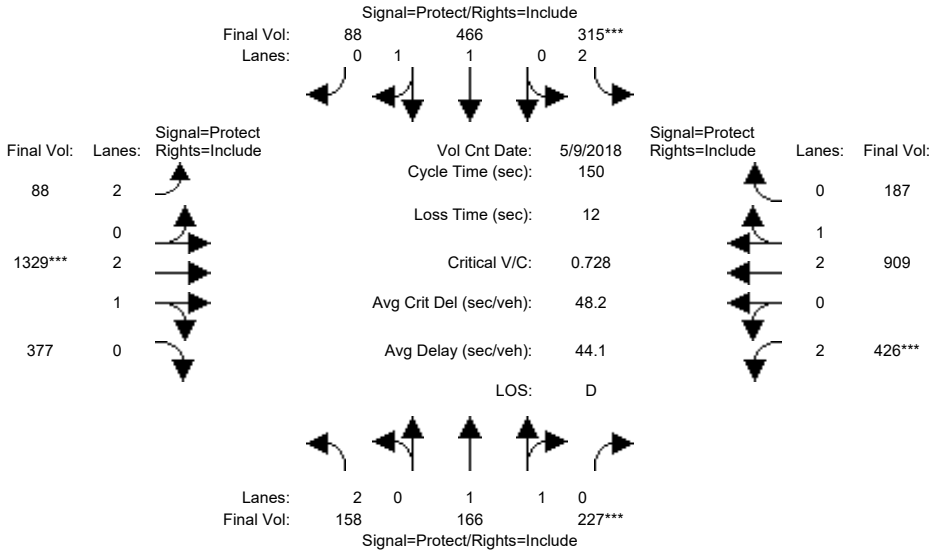
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (PM)

Intersection #3295: BERRYESSA/FLICKINGER



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	104	154	227	304	466	84	81	1199	342	395	836	187
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	154	227	304	466	84	81	1199	342	395	836	187
Added Vol:	24	8	0	7	0	0	0	12	0	20	0	0
ATI:	30	4	0	4	0	4	7	118	35	11	73	0
Initial Fut:	158	166	227	315	466	88	88	1329	377	426	909	187
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	158	166	227	315	466	88	88	1329	377	426	909	187
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	166	227	315	466	88	88	1329	377	426	909	187
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	158	166	227	315	466	88	88	1329	377	426	909	187
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95
Lanes:	2.00	1.00	1.00	2.00	1.67	0.33	2.00	2.31	0.69	2.00	2.47	0.53
Final Sat.:	3150	1900	1750	3150	3112	588	3150	4361	1237	3150	4643	955
Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.13	0.10	0.15	0.15	0.03	0.30	0.30	0.14	0.20	0.20
Crit Moves:			****	****				****		****		
Green Time:	11.9	26.7	26.7	20.6	35.5	35.5	17.5	62.8	62.8	27.9	73.2	73.2
Volume/Cap:	0.63	0.49	0.73	0.73	0.63	0.63	0.24	0.73	0.73	0.73	0.40	0.40
Delay/Veh:	72.2	56.0	63.2	68.1	53.0	53.0	60.6	37.6	37.6	62.1	24.5	24.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.2	56.0	63.2	68.1	53.0	53.0	60.6	37.6	37.6	62.1	24.5	24.5
LOS by Move:	E	E	E	E	D	D	E	D	D	E	C	C
HCM2k95thQ:	10	14	22	16	21	21	5	38	38	22	19	19

Note: Queue reported is the number of cars per lane.

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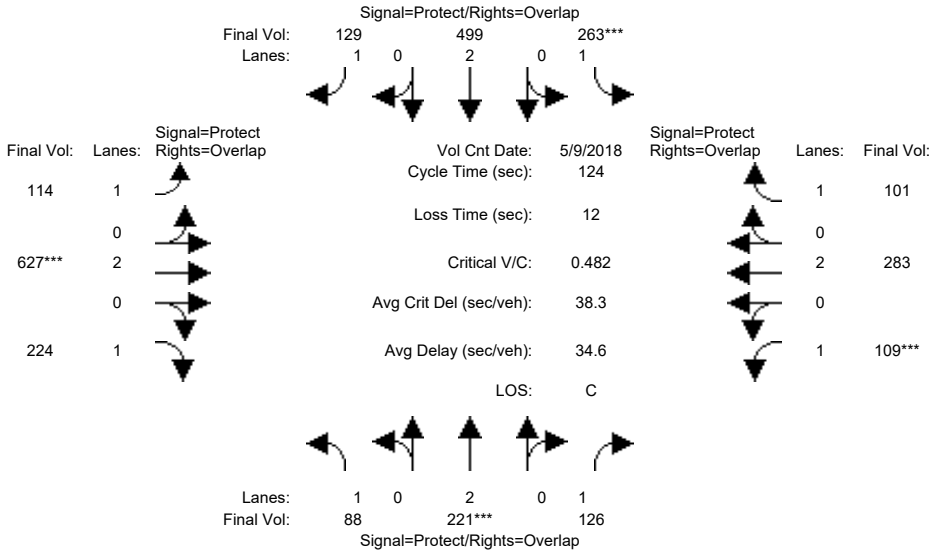
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (PM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	88	221	126	263	499	129	114	627	224	109	283	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	221	126	263	499	129	114	627	224	109	283	101
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	221	126	263	499	129	114	627	224	109	283	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	221	126	263	499	129	114	627	224	109	283	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	221	126	263	499	129	114	627	224	109	283	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	221	126	263	499	129	114	627	224	109	283	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.06	0.07	0.15	0.13	0.07	0.07	0.17	0.13	0.06	0.07	0.06
Crit Moves:		****		****				****		****		
Green Time:	16.1	14.9	31.0	38.6	37.5	63.6	26.1	42.4	58.5	16.0	32.3	70.9
Volume/Cap:	0.39	0.48	0.29	0.48	0.43	0.14	0.31	0.48	0.27	0.48	0.29	0.10
Delay/Veh:	50.5	51.7	38.0	35.3	35.0	16.0	41.8	32.4	20.0	51.8	36.8	12.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.5	51.7	38.0	35.3	35.0	16.0	41.8	32.4	20.0	51.8	36.8	12.1
LOS by Move:	D	D	D	D	D	B	D	C	C	D	D	B
HCM2k95thQ:	7	9	8	17	14	5	8	17	10	9	8	4

Note: Queue reported is the number of cars per lane.

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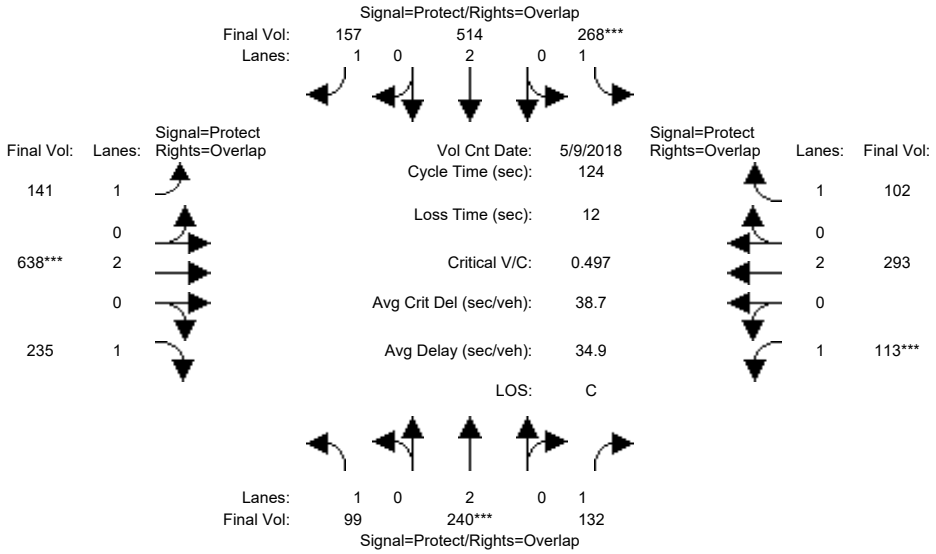
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (PM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	88	221	126	263	499	129	114	627	224	109	283	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	221	126	263	499	129	114	627	224	109	283	101
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	11	19	6	5	15	28	27	11	11	4	10	1
Initial Fut:	99	240	132	268	514	157	141	638	235	113	293	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	99	240	132	268	514	157	141	638	235	113	293	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	240	132	268	514	157	141	638	235	113	293	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	99	240	132	268	514	157	141	638	235	113	293	102
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.08	0.15	0.14	0.09	0.08	0.17	0.13	0.06	0.08	0.06
Crit Moves:		****		****				****		****		
Green Time:	15.9	15.8	31.9	38.2	38.1	67.1	29.0	41.9	57.8	16.1	29.0	67.2
Volume/Cap:	0.44	0.50	0.29	0.50	0.44	0.17	0.34	0.50	0.29	0.50	0.33	0.11
Delay/Veh:	51.3	51.2	37.4	35.8	34.7	14.4	40.1	33.0	20.6	51.9	39.6	13.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.3	51.2	37.4	35.8	34.7	14.4	40.1	33.0	20.6	51.9	39.6	13.8
LOS by Move:	D	D	D	D	C	B	D	C	C	D	D	B
HCM2k95thQ:	8	9	9	17	15	6	9	17	11	10	9	4

Note: Queue reported is the number of cars per lane.

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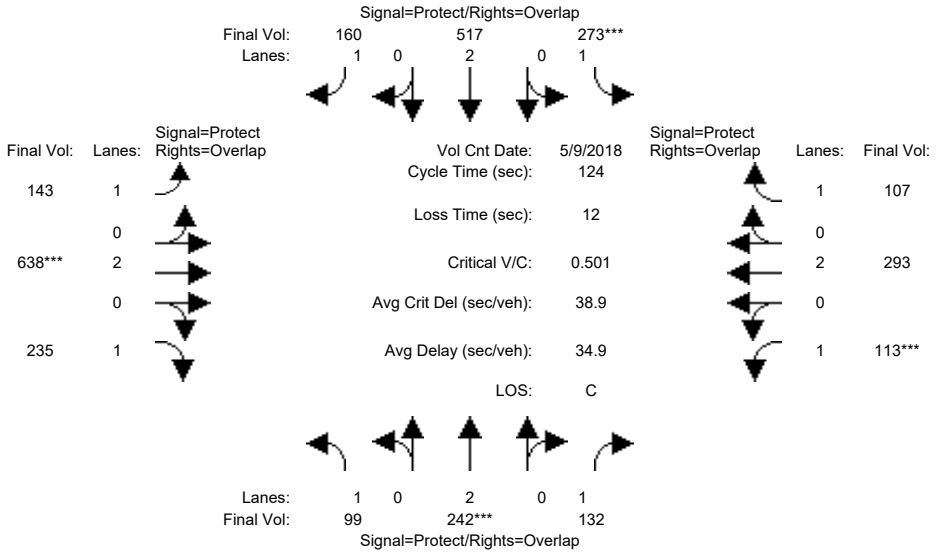
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (PM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	88	221	126	263	499	129	114	627	224	109	283	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	221	126	263	499	129	114	627	224	109	283	101
Added Vol:	0	2	0	5	3	3	2	0	0	0	0	5
ATI:	11	19	6	5	15	28	27	11	11	4	10	1
Initial Fut:	99	242	132	273	517	160	143	638	235	113	293	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	99	242	132	273	517	160	143	638	235	113	293	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	242	132	273	517	160	143	638	235	113	293	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	99	242	132	273	517	160	143	638	235	113	293	107
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.08	0.16	0.14	0.09	0.08	0.17	0.13	0.06	0.08	0.06
Crit Moves:		****		****				****		****		
Green Time:	16.0	15.8	31.8	38.6	38.4	67.4	29.0	41.6	57.6	16.0	28.6	67.2
Volume/Cap:	0.44	0.50	0.29	0.50	0.44	0.17	0.35	0.50	0.29	0.50	0.33	0.11
Delay/Veh:	51.2	51.3	37.5	35.5	34.4	14.3	40.2	33.2	20.8	52.0	40.0	13.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.2	51.3	37.5	35.5	34.4	14.3	40.2	33.2	20.8	52.0	40.0	13.9
LOS by Move:	D	D	D	D	C	B	D	C	C	D	D	B
HCM2k95thQ:	8	9	9	17	15	6	9	17	11	10	9	4

Note: Queue reported is the number of cars per lane.

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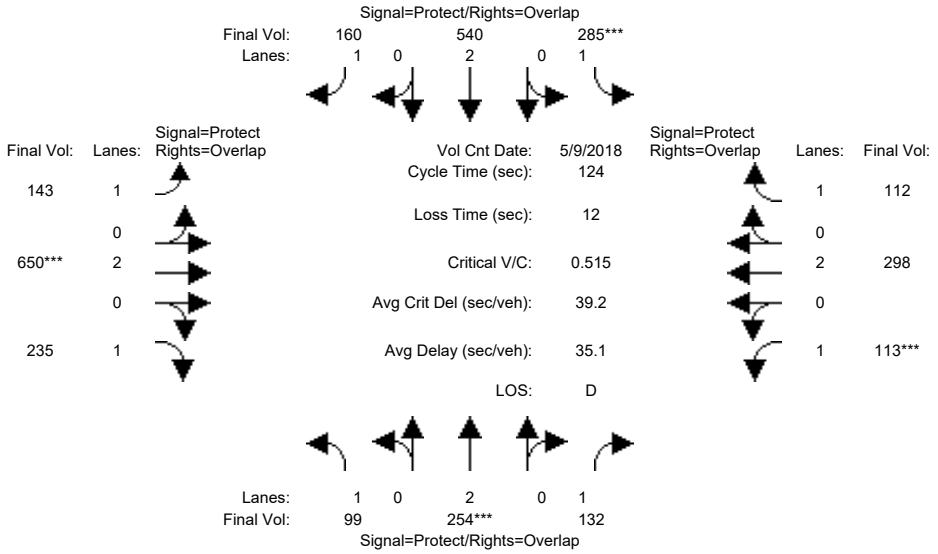
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (PM)

Intersection #3595: JACKSON/MABURY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2018 <<												
Base Vol:	99	240	132	268	514	157	141	638	235	113	293	102
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	99	240	132	268	514	157	141	638	235	113	293	102
Added Vol:	0	2	0	5	3	3	2	0	0	0	0	5
ATI:	0	12	0	12	23	0	0	12	0	0	5	5
Initial Fut:	99	254	132	285	540	160	143	650	235	113	298	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	99	254	132	285	540	160	143	650	235	113	298	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	254	132	285	540	160	143	650	235	113	298	112
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	99	254	132	285	540	160	143	650	235	113	298	112
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.07	0.08	0.16	0.14	0.09	0.08	0.17	0.13	0.06	0.08	0.06
Crit Moves:		****		****				****		****		
Green Time:	15.7	16.1	31.6	39.2	39.5	68.1	28.5	41.2	56.9	15.5	28.2	67.4
Volume/Cap:	0.45	0.52	0.30	0.52	0.45	0.17	0.35	0.52	0.29	0.52	0.35	0.12
Delay/Veh:	51.5	51.3	37.6	35.5	33.8	14.0	40.6	33.7	21.2	52.8	40.4	13.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.5	51.3	37.6	35.5	33.8	14.0	40.6	33.7	21.2	52.8	40.4	13.9
LOS by Move:	D	D	D	D	C	B	D	C	C	D	D	B
HCM2k95thQ:	8	10	9	18	15	6	9	18	11	10	9	4

Note: Queue reported is the number of cars per lane.

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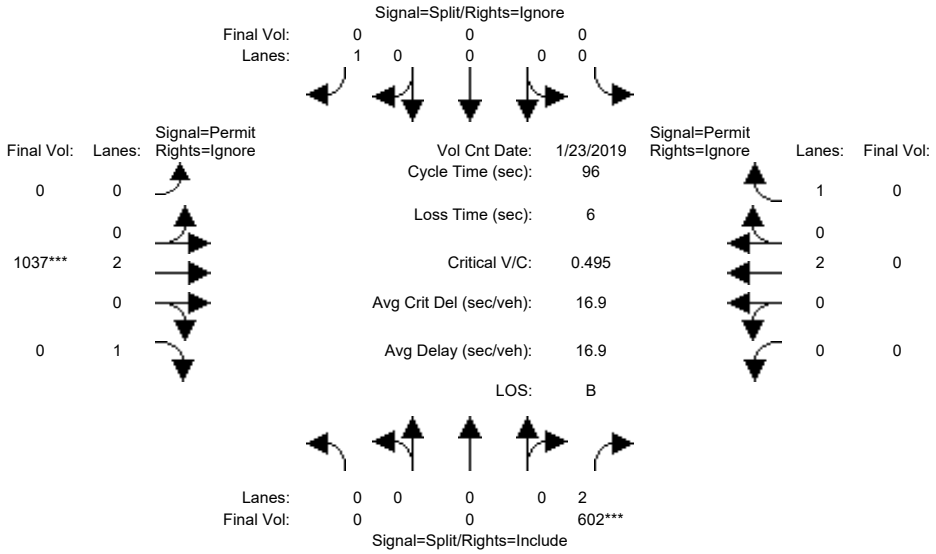
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing (PM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	602	0	0	326	0	1037	425	0	1130	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	602	0	0	326	0	1037	425	0	1130	318
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	602	0	0	326	0	1037	425	0	1130	318
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	602	0	0	0	0	1037	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	602	0	0	0	0	1037	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	602	0	0	0	0	1037	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	3150	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	37.1	0.0	0.0	0.0	0.0	52.9	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	22.7	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	22.7	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	B	A	A	A	A
HCM2k95thQ:	0	0	15	0	0	0	0	18	0	0	0	0

Note: Queue reported is the number of cars per lane.

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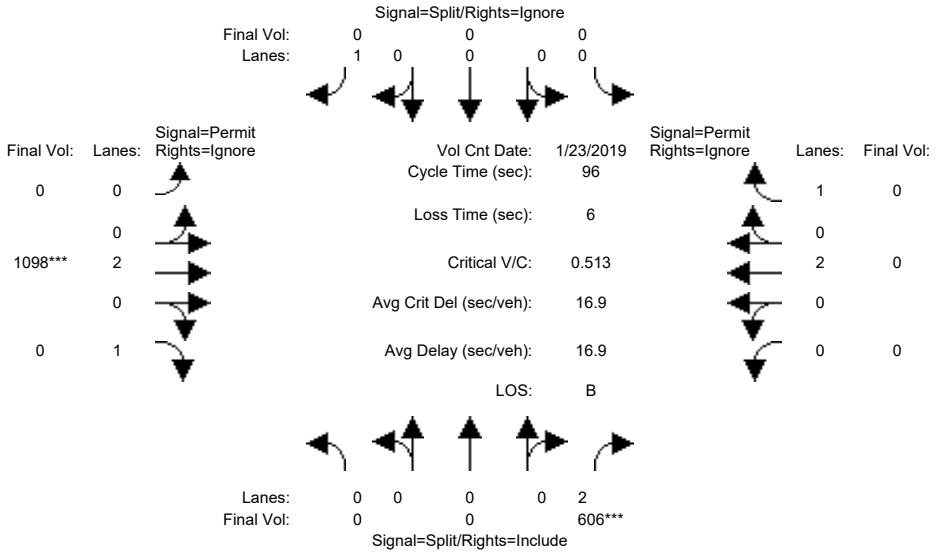
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background (PM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	602	0	0	326	0	1037	425	0	1130	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	602	0	0	326	0	1037	425	0	1130	318
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	4	0	0	0	0	61	52	0	25	17
Initial Fut:	0	0	606	0	0	326	0	1098	477	0	1155	335
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	606	0	0	0	0	1098	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	606	0	0	0	0	1098	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	606	0	0	0	0	1098	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	3150	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	36.0	0.0	0.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	23.6	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	23.6	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	B	A	A	A	A
HCM2k95thQ:	0	0	15	0	0	0	0	19	0	0	0	0

Note: Queue reported is the number of cars per lane.

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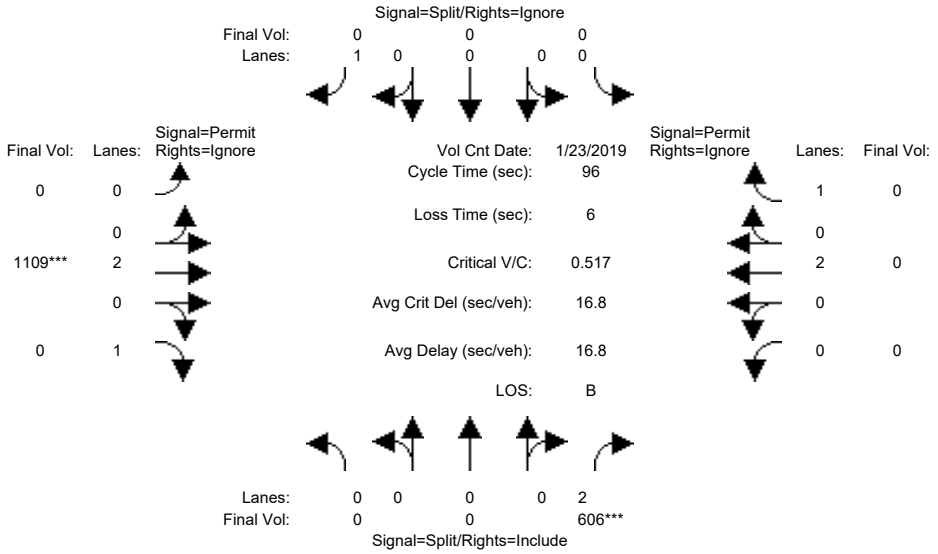
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background Plus Project (PM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	602	0	0	326	0	1037	425	0	1130	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	602	0	0	326	0	1037	425	0	1130	318
Added Vol:	0	0	0	0	0	0	0	11	0	0	10	0
ATI:	0	0	4	0	0	0	0	61	52	0	25	17
Initial Fut:	0	0	606	0	0	326	0	1109	477	0	1165	335
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	606	0	0	0	0	1109	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	606	0	0	0	0	1109	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	606	0	0	0	0	1109	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	3150	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	35.8	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	23.8	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	23.8	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	B	A	A	A	A
HCM2k95thQ:	0	0	15	0	0	0	0	19	0	0	0	0

Note: Queue reported is the number of cars per lane.

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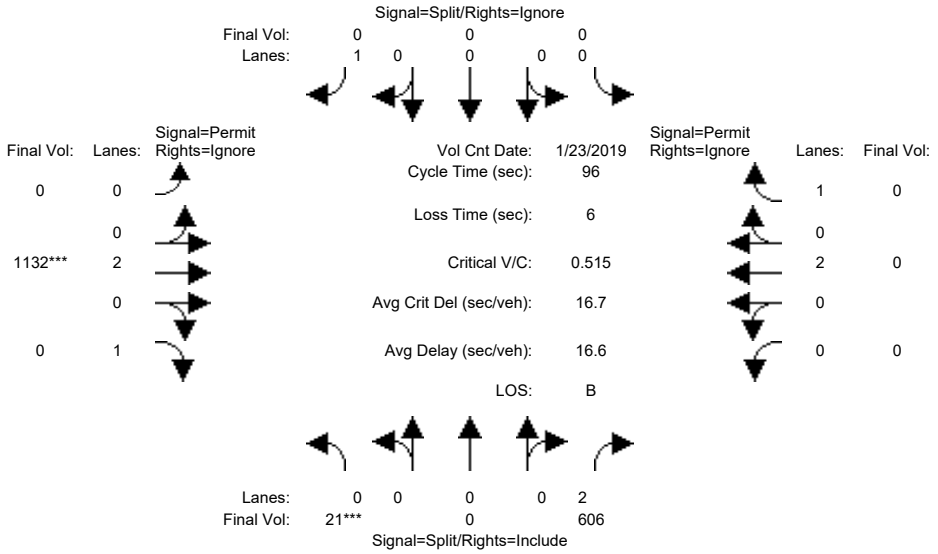
Berryessa Plaza

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative (PM)

Intersection #3948: 680/BERRYESSA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Jan 2019 <<												
Base Vol:	0	0	606	0	0	326	0	1098	477	0	1155	335
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	606	0	0	326	0	1098	477	0	1155	335
Added Vol:	0	0	0	0	0	0	0	11	0	0	10	0
ATI:	21	0	0	0	0	0	0	23	58	0	11	0
Initial Fut:	21	0	606	0	0	326	0	1132	535	0	1176	335
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	21	0	606	0	0	0	0	1132	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	606	0	0	0	0	1132	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	21	0	606	0	0	0	0	1132	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.06	0.00	1.94	0.00	0.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	113	0	3387	0	0	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.00	0.18	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
Crit Moves:	****							****				
Green Time:	34.5	0.0	34.5	0.0	0.0	0.0	0.0	55.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.52	0.00	0.50	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
Delay/Veh:	24.6	0.0	24.3	0.0	0.0	0.0	0.0	12.4	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.6	0.0	24.3	0.0	0.0	0.0	0.0	12.4	0.0	0.0	0.0	0.0
LOS by Move:	C	A	C	A	A	A	A	B	A	A	A	A
HCM2k95thQ:	15	0	14	0	0	0	0	19	0	0	0	0

Note: Queue reported is the number of cars per lane.

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Appendix E
Queue Length Calculations

Jackson/Berryessa
NBL
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 5.8
Percentile = 95% 10

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0030	0.0030	0
0.0176	0.0206	1
0.0509	0.0715	2
0.0985	0.1700	3
0.1428	0.3127	4
0.1656	0.4783	5
0.1601	0.6384	6
0.1326	0.7710	7
0.0962	0.8672	8
0.0620	0.9292	9
0.0359	0.9651	10
0.0190	0.9841	11
0.0092	0.9932	12
0.0041	0.9973	13
0.0017	0.9990	14
0.0007	0.9996	15
0.0002	0.9999	16
0.0001	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBL
AM
Background Conditions
Avg. Queue Per Lane in Veh= 6.2
Percentile = 95% 11

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0020	0.0020	0
0.0126	0.0146	1
0.0390	0.0536	2
0.0806	0.1342	3
0.1249	0.2592	4
0.1549	0.4141	5
0.1601	0.5742	6
0.1418	0.7160	7
0.1099	0.8259	8
0.0757	0.9016	9
0.0469	0.9486	10
0.0265	0.9750	11
0.0137	0.9887	12
0.0065	0.9952	13
0.0029	0.9981	14
0.0012	0.9993	15
0.0005	0.9997	16
0.0002	0.9999	17
0.0001	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBL
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 6.3
Percentile = 95% 11

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0018	0.0018	0
0.0116	0.0134	1
0.0364	0.0498	2
0.0765	0.1264	3
0.1205	0.2469	4
0.1519	0.3988	5
0.1595	0.5582	6
0.1435	0.7017	7
0.1130	0.8148	8
0.0791	0.8939	9
0.0498	0.9437	10
0.0285	0.9723	11
0.0150	0.9873	12
0.0073	0.9945	13
0.0033	0.9978	14
0.0014	0.9992	15
0.0005	0.9997	16
0.0002	0.9999	17
0.0001	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBL
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 1.7
Percentile = 95% 4

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.1827	0.1827	0
0.3106	0.4932	1
0.2640	0.7572	2
0.1496	0.9068	3
0.0636	0.9704	4
0.0216	0.9920	5
0.0061	0.9981	6
0.0015	0.9996	7
0.0003	0.9999	8
0.0001	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBL
PM
Background Conditions
Avg. Queue Per Lane in Veh= 2.2
Percentile = 95% 5

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.1108	0.1108	0
0.2438	0.3546	1
0.2681	0.6227	2
0.1966	0.8194	3
0.1082	0.9275	4
0.0476	0.9751	5
0.0174	0.9925	6
0.0055	0.9980	7
0.0015	0.9995	8
0.0004	0.9999	9
0.0001	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBL
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 3.0
Percentile = 95% 6

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0498	0.0498	0
0.1494	0.1991	1
0.2240	0.4232	2
0.2240	0.6472	3
0.1680	0.8153	4
0.1008	0.9161	5
0.0504	0.9665	6
0.0216	0.9881	7
0.0081	0.9962	8
0.0027	0.9989	9
0.0008	0.9997	10
0.0002	0.9999	11
0.0001	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
SBL
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 5.3
Percentile = 95% 9

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0050	0.0050	0
0.0265	0.0314	1
0.0701	0.1016	2
0.1239	0.2254	3
0.1641	0.3895	4
0.1740	0.5635	5
0.1537	0.7171	6
0.1163	0.8335	7
0.0771	0.9106	8
0.0454	0.9559	9
0.0241	0.9800	10
0.0116	0.9916	11
0.0051	0.9967	12
0.0021	0.9988	13
0.0008	0.9996	14
0.0003	0.9999	15
0.0001	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
SBL
AM
Background Conditions
Avg. Queue Per Lane in Veh= 5.3
Percentile = 95% 9

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0050	0.0050	0
0.0265	0.0314	1
0.0701	0.1016	2
0.1239	0.2254	3
0.1641	0.3895	4
0.1740	0.5635	5
0.1537	0.7171	6
0.1163	0.8335	7
0.0771	0.9106	8
0.0454	0.9559	9
0.0241	0.9800	10
0.0116	0.9916	11
0.0051	0.9967	12
0.0021	0.9988	13
0.0008	0.9996	14
0.0003	0.9999	15
0.0001	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
SBL
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 5.4
Percentile = 95% 9

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0045	0.0045	0
0.0244	0.0289	1
0.0659	0.0948	2
0.1185	0.2133	3
0.1600	0.3733	4
0.1728	0.5461	5
0.1555	0.7017	6
0.1200	0.8217	7
0.0810	0.9027	8
0.0486	0.9512	9
0.0262	0.9775	10
0.0129	0.9904	11
0.0058	0.9962	12
0.0024	0.9986	13
0.0009	0.9995	14
0.0003	0.9998	15
0.0001	0.9999	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
SBL
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 6.2
Percentile = 95% 11

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0020	0.0020	0
0.0126	0.0146	1
0.0390	0.0536	2
0.0806	0.1342	3
0.1249	0.2592	4
0.1549	0.4141	5
0.1601	0.5742	6
0.1418	0.7160	7
0.1099	0.8259	8
0.0757	0.9016	9
0.0469	0.9486	10
0.0265	0.9750	11
0.0137	0.9887	12
0.0065	0.9952	13
0.0029	0.9981	14
0.0012	0.9993	15
0.0005	0.9997	16
0.0002	0.9999	17
0.0001	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
SBL
PM
Background Conditions
Avg. Queue Per Lane in Veh= 6.3
Percentile = 95% 11

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0018	0.0018	0
0.0116	0.0134	1
0.0364	0.0498	2
0.0765	0.1264	3
0.1205	0.2469	4
0.1519	0.3988	5
0.1595	0.5582	6
0.1435	0.7017	7
0.1130	0.8148	8
0.0791	0.8939	9
0.0498	0.9437	10
0.0285	0.9723	11
0.0150	0.9873	12
0.0073	0.9945	13
0.0033	0.9978	14
0.0014	0.9992	15
0.0005	0.9997	16
0.0002	0.9999	17
0.0001	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
SBL
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 6.6
Percentile = 95% 11

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0014	0.0014	0
0.0090	0.0103	1
0.0296	0.0400	2
0.0652	0.1052	3
0.1076	0.2127	4
0.1420	0.3547	5
0.1562	0.5108	6
0.1472	0.6581	7
0.1215	0.7796	8
0.0891	0.8686	9
0.0588	0.9274	10
0.0353	0.9627	11
0.0194	0.9821	12
0.0099	0.9920	13
0.0046	0.9966	14
0.0020	0.9986	15
0.0008	0.9995	16
0.0003	0.9998	17
0.0001	0.9999	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
WBL
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 6.1
Percentile = 95% 10

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0022	0.0022	0
0.0137	0.0159	1
0.0417	0.0577	2
0.0848	0.1425	3
0.1294	0.2719	4
0.1579	0.4298	5
0.1605	0.5902	6
0.1399	0.7301	7
0.1066	0.8367	8
0.0723	0.9090	9
0.0441	0.9531	10
0.0244	0.9776	11
0.0124	0.9900	12
0.0058	0.9958	13
0.0025	0.9984	14
0.0010	0.9994	15
0.0004	0.9998	16
0.0001	0.9999	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
WBL
AM
Background Conditions
Avg. Queue Per Lane in Veh= 6.2
Percentile = 95% 11

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0020	0.0020	0
0.0126	0.0146	1
0.0390	0.0536	2
0.0806	0.1342	3
0.1249	0.2592	4
0.1549	0.4141	5
0.1601	0.5742	6
0.1418	0.7160	7
0.1099	0.8259	8
0.0757	0.9016	9
0.0469	0.9486	10
0.0265	0.9750	11
0.0137	0.9887	12
0.0065	0.9952	13
0.0029	0.9981	14
0.0012	0.9993	15
0.0005	0.9997	16
0.0002	0.9999	17
0.0001	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
WBL
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 6.4
Percentile = 95% 11

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0017	0.0017	0
0.0106	0.0123	1
0.0340	0.0463	2
0.0726	0.1189	3
0.1162	0.2351	4
0.1487	0.3837	5
0.1586	0.5423	6
0.1450	0.6873	7
0.1160	0.8033	8
0.0825	0.8858	9
0.0528	0.9386	10
0.0307	0.9693	11
0.0164	0.9857	12
0.0081	0.9937	13
0.0037	0.9974	14
0.0016	0.9990	15
0.0006	0.9996	16
0.0002	0.9999	17
0.0001	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
WBL
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 8.1
Percentile = 95% 13

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0003	0.0003	0
0.0025	0.0028	1
0.0100	0.0127	2
0.0269	0.0396	3
0.0544	0.0940	4
0.0882	0.1822	5
0.1191	0.3013	6
0.1378	0.4391	7
0.1395	0.5786	8
0.1256	0.7041	9
0.1017	0.8058	10
0.0749	0.8807	11
0.0505	0.9313	12
0.0315	0.9628	13
0.0182	0.9810	14
0.0098	0.9908	15
0.0050	0.9958	16
0.0024	0.9982	17
0.0011	0.9992	18
0.0005	0.9997	19
0.0002	0.9999	20
0.0001	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
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0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
WBL
PM
Background Conditions
Avg. Queue Per Lane in Veh= 8.3
Percentile = 95% 13

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0002	0.0002	0
0.0021	0.0023	1
0.0086	0.0109	2
0.0237	0.0346	3
0.0491	0.0837	4
0.0816	0.1653	5
0.1128	0.2781	6
0.1338	0.4119	7
0.1388	0.5507	8
0.1280	0.6788	9
0.1063	0.7850	10
0.0802	0.8652	11
0.0555	0.9207	12
0.0354	0.9561	13
0.0210	0.9771	14
0.0116	0.9887	15
0.0060	0.9947	16
0.0029	0.9977	17
0.0014	0.9990	18
0.0006	0.9996	19
0.0002	0.9998	20
0.0001	0.9999	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
WBL
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 8.9
Percentile = 95% 14

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0001	0.0001	0
0.0012	0.0014	1
0.0054	0.0068	2
0.0160	0.0228	3
0.0357	0.0584	4
0.0635	0.1219	5
0.0941	0.2160	6
0.1197	0.3357	7
0.1332	0.4689	8
0.1317	0.6006	9
0.1172	0.7178	10
0.0948	0.8126	11
0.0703	0.8829	12
0.0481	0.9311	13
0.0306	0.9617	14
0.0182	0.9798	15
0.0101	0.9899	16
0.0053	0.9952	17
0.0026	0.9978	18
0.0012	0.9991	19
0.0005	0.9996	20
0.0002	0.9998	21
0.0001	0.9999	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBT/R
AM
Existing Conditions
Avg. Queue Per Lane in Veh= 27.7
Percentile = 95% 37

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0000	0.0000	2
0.0000	0.0000	3
0.0000	0.0000	4
0.0000	0.0000	5
0.0000	0.0000	6
0.0000	0.0000	7
0.0000	0.0000	8
0.0000	0.0000	9
0.0001	0.0001	10
0.0002	0.0003	11
0.0004	0.0007	12
0.0008	0.0015	13
0.0017	0.0032	14
0.0031	0.0063	15
0.0054	0.0117	16
0.0087	0.0204	17
0.0134	0.0338	18
0.0196	0.0534	19
0.0271	0.0805	20
0.0358	0.1163	21
0.0451	0.1614	22
0.0543	0.2157	23
0.0626	0.2783	24
0.0694	0.3477	25
0.0739	0.4217	26
0.0759	0.4975	27
0.0750	0.5726	28
0.0717	0.6443	29
0.0662	0.7104	30
0.0591	0.7696	31
0.0512	0.8208	32
0.0430	0.8638	33
0.0350	0.8988	34
0.0277	0.9265	35
0.0213	0.9478	36
0.0160	0.9637	37
0.0116	0.9754	38
0.0083	0.9836	39
0.0057	0.9894	40
0.0039	0.9932	41
0.0025	0.9958	42
0.0016	0.9974	43
0.0010	0.9985	44
0.0006	0.9991	45
0.0004	0.9995	46
0.0002	0.9997	47
0.0001	0.9998	48
0.0001	0.9999	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBT/R
AM
Background Conditions
Avg. Queue Per Lane in Veh= 28.1
Percentile = 95% 37

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0000	0.0000	2
0.0000	0.0000	3
0.0000	0.0000	4
0.0000	0.0000	5
0.0000	0.0000	6
0.0000	0.0000	7
0.0000	0.0000	8
0.0000	0.0000	9
0.0001	0.0001	10
0.0001	0.0002	11
0.0003	0.0005	12
0.0007	0.0012	13
0.0014	0.0026	14
0.0026	0.0052	15
0.0045	0.0097	16
0.0075	0.0172	17
0.0117	0.0288	18
0.0172	0.0461	19
0.0242	0.0703	20
0.0324	0.1027	21
0.0414	0.1441	22
0.0506	0.1947	23
0.0592	0.2539	24
0.0666	0.3205	25
0.0720	0.3925	26
0.0749	0.4674	27
0.0752	0.5425	28
0.0728	0.6153	29
0.0682	0.6836	30
0.0618	0.7454	31
0.0543	0.7997	32
0.0462	0.8459	33
0.0382	0.8841	34
0.0307	0.9148	35
0.0239	0.9387	36
0.0182	0.9569	37
0.0134	0.9704	38
0.0097	0.9801	39
0.0068	0.9869	40
0.0047	0.9915	41
0.0031	0.9947	42
0.0020	0.9967	43
0.0013	0.9980	44
0.0008	0.9988	45
0.0005	0.9993	46
0.0003	0.9996	47
0.0002	0.9998	48
0.0001	0.9999	49
0.0001	0.9999	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBT/R
AM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 28.2
Percentile = 95% 37

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0000	0.0000	2
0.0000	0.0000	3
0.0000	0.0000	4
0.0000	0.0000	5
0.0000	0.0000	6
0.0000	0.0000	7
0.0000	0.0000	8
0.0000	0.0000	9
0.0000	0.0001	10
0.0001	0.0002	11
0.0003	0.0005	12
0.0006	0.0011	13
0.0013	0.0025	14
0.0025	0.0049	15
0.0043	0.0092	16
0.0072	0.0164	17
0.0112	0.0277	18
0.0167	0.0444	19
0.0235	0.0679	20
0.0316	0.0995	21
0.0405	0.1400	22
0.0497	0.1897	23
0.0584	0.2481	24
0.0658	0.3139	25
0.0714	0.3853	26
0.0746	0.4599	27
0.0751	0.5350	28
0.0730	0.6080	29
0.0687	0.6767	30
0.0625	0.7392	31
0.0550	0.7942	32
0.0470	0.8412	33
0.0390	0.8803	34
0.0314	0.9117	35
0.0246	0.9363	36
0.0188	0.9551	37
0.0139	0.9690	38
0.0101	0.9791	39
0.0071	0.9862	40
0.0049	0.9911	41
0.0033	0.9943	42
0.0022	0.9965	43
0.0014	0.9979	44
0.0009	0.9987	45
0.0005	0.9993	46
0.0003	0.9996	47
0.0002	0.9998	48
0.0001	0.9999	49
0.0001	0.9999	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBT/R
PM
Existing Conditions
Avg. Queue Per Lane in Veh= 12.3
Percentile = 95% 18

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0001	0.0001	1
0.0003	0.0004	2
0.0014	0.0018	3
0.0043	0.0062	4
0.0107	0.0168	5
0.0219	0.0387	6
0.0385	0.0772	7
0.0591	0.1363	8
0.0808	0.2172	9
0.0994	0.3166	10
0.1112	0.4278	11
0.1139	0.5417	12
0.1078	0.6495	13
0.0947	0.7442	14
0.0777	0.8219	15
0.0597	0.8816	16
0.0432	0.9248	17
0.0295	0.9543	18
0.0191	0.9734	19
0.0118	0.9852	20
0.0069	0.9921	21
0.0038	0.9959	22
0.0021	0.9980	23
0.0011	0.9990	24
0.0005	0.9996	25
0.0002	0.9998	26
0.0001	0.9999	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBT/R
PM
Background Conditions
Avg. Queue Per Lane in Veh= 12.7
Percentile = 95% 19

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0002	0.0003	2
0.0010	0.0013	3
0.0033	0.0046	4
0.0084	0.0130	5
0.0178	0.0308	6
0.0323	0.0631	7
0.0512	0.1143	8
0.0723	0.1866	9
0.0918	0.2783	10
0.1060	0.3843	11
0.1121	0.4964	12
0.1096	0.6060	13
0.0994	0.7054	14
0.0841	0.7895	15
0.0668	0.8563	16
0.0499	0.9062	17
0.0352	0.9414	18
0.0235	0.9649	19
0.0149	0.9799	20
0.0090	0.9889	21
0.0052	0.9941	22
0.0029	0.9970	23
0.0015	0.9985	24
0.0008	0.9993	25
0.0004	0.9997	26
0.0002	0.9999	27
0.0001	0.9999	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Jackson/Berryessa
NBT/R
PM
Background Plus Project Conditions
Avg. Queue Per Lane in Veh= 12.9
Percentile = 95% 19

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0002	0.0002	2
0.0009	0.0011	3
0.0029	0.0040	4
0.0074	0.0115	5
0.0160	0.0274	6
0.0295	0.0569	7
0.0475	0.1044	8
0.0681	0.1725	9
0.0878	0.2604	10
0.1030	0.3634	11
0.1107	0.4741	12
0.1099	0.5840	13
0.1013	0.6853	14
0.0871	0.7724	15
0.0702	0.8426	16
0.0533	0.8959	17
0.0382	0.9341	18
0.0259	0.9600	19
0.0167	0.9767	20
0.0103	0.9870	21
0.0060	0.9930	22
0.0034	0.9964	23
0.0018	0.9982	24
0.0009	0.9991	25
0.0005	0.9996	26
0.0002	0.9998	27
0.0001	0.9999	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65