

**APPENDIX 1.1:**

**APPROVED TRAFFIC STUDY SCOPING AGREEMENT**

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## Exhibit A

### SCOPING AGREEMENT FOR TRAFFIC IMPACT ANALYSIS

This letter acknowledges the City of Murrieta Public Works/Engineering Department requirements for traffic impact analysis of the following project. The analysis must follow the City Traffic Impact Analysis Preparation Guidelines dated May 2020.

Case No. (Required for submittal) \_\_\_\_\_  
 Related Cases - \_\_\_\_\_  
 SP No. \_\_\_\_\_  
 EIR No. \_\_\_\_\_  
 GPA No. \_\_\_\_\_  
 CZ No. \_\_\_\_\_  
 Project Name: Discovery Village  
 Project Address: SWC of Whitewood Road and Baxter Road  
 Project Description: 237 single family DUs, 198 low-rise multifamily DUs, 267,000 SF business park, 5,000 SF shopping center

	<b>Consultant</b>	<b>Developer</b>
Name:	Urban Crossroads, Inc. - Charlene So	Discovery Village LLC
Address:	1133 Camelback St. #8329, Newport Beach, CA 92658	4131 S. Main St., Santa Ana, CA 92707
Telephone:	949-861-0177	

**A. Trip Generation Source:** (ITE 9th Edition or other) <sup>10th Edition, 2017</sup>

Current GP Land Use	<u>MFR &amp; Industrial</u>	Proposed Land Use	<u>MFR &amp; Industrial</u>
Current Zoning	<u>MFR-2 &amp; Innovation</u>	Proposed Zoning	<u>MFR-2 &amp; Innovation</u>

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				227	304	531
PM Trips				290	214	504

Internal Trip Allowance	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	( _____ % Trip Discount)
Pass-By Trip Allowance	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	( <u>25% (PM/Daily)</u> % Trip Discount)

A pass-by trip discount of up to 25% is allowed for appropriate land uses. The pass-by trips at adjacent study area intersections and project driveways shall be indicated on a report figure.

**B. Trip Geographic Distribution:** N \_\_\_%    S \_\_\_%    E \_\_\_%    W \_\_\_%    Distributions vary  
 (attach exhibit for detailed assignment)

**C. Background Traffic**

Project Build-out Year: 2027                      Annual Ambient Growth Rate: % 2.0% per year

Exhibit A – Scoping Agreement – Page 2

Phase Year(s) N/A

Other area projects to be analyzed: See Table 3 & Exhibit 6

City of Menifee will be contacted to obtain a current list of cumulative projects in their agency

Model/Forecast methodology: City of Murrieta Traffic Model

**D. Study intersections:** (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

- |                                            |           |
|--------------------------------------------|-----------|
| 1. <u>See Page 2 of the attached scope</u> | 6. _____  |
| 2. _____                                   | 7. _____  |
| 3. _____                                   | 8. _____  |
| 4. _____                                   | 9. _____  |
| 5. _____                                   | 10. _____ |

**E. Study Roadway Segments:** (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

- |                                            |           |
|--------------------------------------------|-----------|
| 1. <u>See page 2 of the attached scope</u> | 6. _____  |
| 2. _____                                   | 7. _____  |
| 3. _____                                   | 8. _____  |
| 4. _____                                   | 9. _____  |
| 5. _____                                   | 10. _____ |

**F. Site Plan** (please attach reduced copy)

**G. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline)** (To be filled out by Engineering Department)

- assume signals on Clinton Keith Rd. are coordinated
- all driveways shall meet City spacing requirements per Standard Drawings & Development Code
- right-turn lane analysis for all new intersections/driveways

**H. Existing Conditions**

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.

Date of counts New Counts plus adjustments based on comparisons to historic data

**I. Potential Screening Checks**

- signal warrants at driveways
- queuing analysis per attached letter

**Is your project screened from specific analyses (see Pages 6-13 of the guidelines related to LOS assessment and Pages 14-18 related to VMT assessment)**

Is the project screened from LOS assessment?  Yes  No

LOS screening justification (see Pages 6-13 of the guidelines):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is the project screened from VMT assessment?  Yes  No

VMT screening justification (see Pages 14-18 of the guidelines):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**J. VMT Scoping**

For projects that are not screened, identify the following:

- **Travel Demand Forecasting Model Used:** City of Murrieta Traffic Model
- **Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)**

Recommended by: *Charlene S*  
Consultant's Representative

9/27/2021  
Date

Scoping Agreement Submitted on 9/27/2021

Revised on 10/11/2021

Approved Scoping Agreement:  
*B.R.*  
City Of Murrieta Engineering  
Department

10/12/21  
Date

Note: Per City General Plan, intersection of Warm Springs Parkway and Baxter Road has additional lane (1 eastbound right turn lane). Ensure project design includes this geometry.

October 11, 2021

Mr. Brian Stephenson  
City of Murrieta  
1 Town Square  
Murrieta, CA 92562

**SUBJECT: DISCOVERY VILLAGE TRAFFIC ANALYSIS SCOPING AGREEMENT**

Dear Mr. Brian Stephenson:

Urban Crossroads, Inc. is pleased to submit this scoping letter to City of Murrieta regarding the Traffic Analysis for the proposed Discovery Village development (**Project**), which is located on the southwest corner of Whitewood Road and Baxter Road in the City of Murrieta (see Exhibit 1 for Location Map). The Project is to consist of 198 multifamily (low-rise) housing units (condo) and 237 single family detached residential dwelling units. The following scope of work has been prepared in accordance with the City's Traffic Impact Analysis Preparation Guidelines (dated May 2020, **City's TIA Guidelines**).

A site plan for the proposed Project is shown on Exhibit 2. For purposes of the traffic impact analysis the Project's opening year is anticipated to be 2027. Access to the Project site will be provided to the surrounding roadways of Antelope Road, Baxter Road, Warm Springs Road, Running Rabbit Road, and Whitewood Road (see Exhibit 2).

## **ANALYSIS SCENARIOS**

Consistent with the City's TIA Guidelines, intersection analysis will be provided for the following scenarios:

- Existing (2021) Conditions
- Opening Year Cumulative (2027) Without Project Conditions
- Opening Year Cumulative (2027) With Project Conditions
- Horizon Year (2040) Without Project Conditions
- Horizon Year (2040) With Project Conditions

## STUDY AREA INTERSECTIONS

Based on the Project’s anticipated travel patterns and trip generation characteristics, the following study area intersection locations shown on Exhibit 3 and listed below were selected for analysis:

#	Intersection
1	Nutmeg St. & Clinton Keith Rd.
2	California Oaks Rd. & Clinton Keith Rd.
3	I-215 SB Ramps & Clinton Keith Rd.
4	I-215 NB Ramps & Clinton Keith Rd.
5	Antelope Rd. & Street A
6	Warm Springs Rd. & Baxter Rd.
7	Warm Springs Rd. & Street B
8	Warm Springs Rd. & Street C
9	Warm Springs Rd. & Street D
10	Warm Springs Rd. & Running Rabbit Rd.
11	Street E & Baxter Rd.
12	Street F & Baxter Rd.
13	Street G & Baxter Rd.
14	Street H & Baxter Rd.
15	Menifee Rd. & Scott Rd.
16	Menifee Rd. & Keller Rd.
17	Whitewood Rd. & Baxter Rd.
18	Whitewood Rd. & Street I
19	Whitewood Rd. & Running Rabbit Rd.
20	Whitewood Rd. & Clinton Keith Rd.

## STUDY AREA ROADWAY SEGMENTS

The following study area roadway segments listed below were selected for analysis:

- Baxter Road, west of Whitewood Road
- Whitewood Road, south of Baxter Road
- Warm Springs Road, between Baxter Road to Running Rabbit Road
- Running Rabbit Road, between Warm Springs Road to Whitewood Road

## EXISTING COUNT DATA

New traffic counts will be collected at the study area intersections as local schools are back in session with in-person instruction. The City will provide historic traffic counts, where available, and we will review to develop an adjustment factor which will be applied to 2021 volumes in order to reflect non-COVID conditions. In order to develop an adjustment factor, the historic traffic counts will be

compared to the current traffic count collected at the same location. The historic count will first be adjusted to 2021 traffic conditions through the application of a 2% per year growth rate. The calculated average growth for the overall intersection (all turning movements) between the current and adjusted historic count will be applied to other existing traffic counts collected in order to reflect and evaluate pre-COVID traffic conditions.

## TRIP GENERATION

In order to estimate the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10<sup>th</sup> Edition, 2017) were used for the proposed land uses. Single Family Housing (ITE Land Use Code 210) and Multifamily Housing (Low-Rise, 2 floors) (ITE Land Use Code 220) have been used for the purposes of estimating the Project's trip generation for the residential component. The Innovation District component allows for a variety of land uses and allows for a wide range of potential land uses, however, for the purposes of the traffic assessment the following land uses will be evaluated:

- The City's General Plan traffic model assumes approximately 44 retail employees over the 83.2-acre traffic analysis zone (TAZ 43423201). This equates to approximately 0.53 employees per acre (44 employees /83.2 acres). Based on the proposed Project's Innovation District area of 18.8 acres, we calculated 10 employees. Using the County of Riverside's General Plan Appendix E, we applied the 500 square feet per employee conversion factor to translate 10 employees to 5,000 square feet (500 SF/emp x 10 emp). For the retail component of the Innovation District, we will assume 5,000 square feet of Shopping Center use (ITE Land Use Code 820).
- Similarly, the City's General Plan traffic model assumed 1,970 non-retail employees over the 83.2-acre TAZ. This equates to approximately 23.68 employees per acre (1,970 employees/83.2 acres). Based on the proposed Project's Innovation District area of 18.8 acres, we calculated 445 employees. Using the County of Riverside's General Plan Appendix E, we applied the 600 square feet per employee conversion factor to translate 445 employees to 267,000 square feet (600 SF/emp x 445 emp). For the non-retail component of the Innovation District, we will assume 267,000 square feet of Business Park use (ITE Land Use Code 770).

Table 1 presents the trip generation rates and resulting trips generated by the proposed Project.



**TABLE 1: TRIP GENERATION RATES**

Land Use <sup>1</sup>	ITE LU Code	Units <sup>2</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
<b>Trip Generation Rates:</b>									
Single Family Residential Detached	210	DU	0.19	0.56	0.74	0.62	0.37	0.99	9.44
Multifamily Housing (Low-Rise)	220	DU	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Business Park	770	TSF	0.24	0.16	0.40	0.19	0.23	0.42	12.44
Shopping Center (Regression Equation)	820	TSF	19.13	11.73	30.86	5.68	6.16	11.84	156.80

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

<sup>2</sup> DU = Dwelling Units; TSF = Thousand Square Feet

As shown in Table 2, the proposed Project is anticipated to generate a total of 7,598 two-way vehicle trips per day, with 531 AM peak hour trips and 504 PM peak hour trips. As the Project is proposed to include shopping center use, pass-by percentages have been utilized based on the City’s maximum allowable 25%.

**TABLE 2: PROJECT TRIP GENERATION SUMMARY**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
<b>Trip Generation Summary:</b>								
Single Family Residential Detached	237 DU	45	133	178	147	88	235	2,238
Multifamily Housing (Low-Rise)	198 DU	21	70	91	70	41	111	1,450
<b>Residential Total</b>		<b>66</b>	<b>203</b>	<b>269</b>	<b>217</b>	<b>129</b>	<b>346</b>	<b>3,688</b>
Business Park	267.000 TSF	65	42	107	52	61	113	3,322
Shopping Center	5.000 TSF	96	59	155	28	31	59	784
Pass-by Reduction (25% PM/Daily)		0	0	0	-7	-7	-14	-196
<b>Innovation District Total</b>		<b>161</b>	<b>101</b>	<b>262</b>	<b>73</b>	<b>85</b>	<b>158</b>	<b>3,910</b>
<b>Project Total</b>		<b>227</b>	<b>304</b>	<b>531</b>	<b>290</b>	<b>214</b>	<b>504</b>	<b>7,598</b>

<sup>1</sup> DU = Dwelling Units; TSF = Thousand Square Feet

## TRIP DISTRIBUTION

Exhibit 4 illustrates the Project trip distribution patterns for the residential component and Exhibit 5 illustrates the Project trip distribution patterns for the Innovation District.

## **GENERAL PLAN CONSISTENCY REQUIREMENTS**

Consistent with the City’s TIA Guidelines, the following criteria will be applied for the traffic analysis.

### **SIGNALIZED INTERSECTION OPERATING REQUIREMENTS**

- Any signalized study intersection operating at an acceptable LOS D or better without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or F shall identify improvements to improve operations to LOS D or better.
- Any signalized study intersection that is operating at LOS E or F without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

### **UNSIGNALIZED INTERSECTION GENERAL PLAN CONSISTENCY REQUIREMENTS**

An operational improvement would be required if the study determines that either section a) or both sections b) and c) occur:

- a) The addition of project related traffic causes the intersection to degrade from an acceptable LOS D or better to LOS E or F.  
OR
- b) The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at a LOS E or F,  
AND
- c) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

If the conditions above are satisfied, improvements should be identified that achieve the following:

- LOS D or better for case a) above or to pre-project LOS and delay for case b) above.

### **ROADWAY SEGMENT GENERAL PLAN CONSISTENCY REQUIREMENTS**

Consistent with the acceptable LOS for the City, the following roadway segment requirements should be considered, and improvements recommended if the project exceeds the noted operational goals:

- Any study roadway segment operating at a LOS C or better without project traffic in which the addition of project traffic causes the segment to degrade to an LOS E or F should identify improvements to achieve LOS C.
- As an exception, LOS “D” may be allowed in the North Murrieta Business Corridor, Clinton Keith/Mitchell, Golden Triangle North (Central Murrieta), South Murrieta Business Corridor, or other Focus Areas, or other employment centers

- Any roadway segment that operates unacceptably in the no project scenario where the project adds traffic in excess of 5% of the roadway capacity (e.g., a volume-to-capacity ratio increase of 0.05) should identify improvements to add capacity to the segment.

## **AMBIENT GROWTH**

Consistent with other studies performed in the area, an ambient growth rate of 2.0% per year is proposed for the study area intersections to approximate background traffic growth not identified by nearby cumulative development projects. The rate will be compounded over a 6-year period (i.e.,  $1.02^{6\text{years}} = 1.1262$  or 12.62% for 2027).

## **SPECIAL ISSUES**

The following special issues will also be addressed as part of the focused traffic assessment:

- Conduct traffic signal warrant analysis for all existing and future unsignalized study area intersections.
- Provide a queuing analysis for Project driveways and the site adjacent intersections of Warm Springs Road & Baxter Road, Warm Springs Road & Running Rabbit Road, Whitewood Road & Baxter Road, and Whitewood Road & Running Rabbit Road.

## **SIGNAL TIMING**

It is requested that the City provide any signal timing that should be considered for signalized study area intersections within the City.

## **CUMULATIVE DEVELOPMENT PROJECTS**

The cumulative projects are listed on Table 3 and are shown graphically on Exhibit 6. It is requested that the City provide an updated list of cumulative development projects for inclusion in the traffic study.

**TABLE 3: SUMMARY OF CUMULATIVE DEVELOPMENT PROJECTS**

#	Project Name	Land Use <sup>1</sup>	Quantity Units <sup>1</sup>
MUR1	The Orchard (DPO-03-161)	Shopping Center	186.000 TSF
MUR2	Vineyard Shopping Center (DPO-2012-3260)	Shopping Center Hotel	78.489 TSF 91 RM
MUR3	Curci Property (DP-2018-1691)	Automobile Parts/Service Center Tire Store Shopping Center High Turnover (Sit-Down) Restaurant Fast-Food with Drive-Thru Window Drive-in Bank	4.000 TSF 5.000 TSF 11.650 TSF 3.000 TSF 5.000 TSF 5.000 TSF
MUR4	McElwain and Linnel (DP-2019-1846)	Hotel	120 RM
MUR5	Makena Hills (EA-2017-1315)	Medical Office High Turnover (Sit-Down) Restaurant Hotel	116.200 TSF 9.300 TSF 206 RM
MUR6	Murrieta-Whitewood Skilled Nursing Facility (DP-2015-708)	Nursing Facility	74.613 TSF
MUR7	Costco (DP-2018-1652)	Warehouse Gas Station/Car-Wash Shopping Center	153.362 TSF 32.000 FS 79.900 TSF
MUR8	Murrieta Senior Living (DP-2017-1333)	Assisted Living	97.275 TSF
MUR9	Meadowlark (DP-2018-1624)	Multi-Family Low-Rise	83 DU
MUR10	76 Gas Station/C-Store (DP-2019-1846)	Gas Station/Car-Wash Convenience Store	3.600 TSF 3.560 TSF
MUR11	Express Carwash and Learning Center (CUP-2020-2179)	Daycare Car-Wash	10.000 TSF 4.100 TSF
MUR12	Whitewood Multifamily (DP-2021-2347)	Multifamily Low Rise	324 DU
MUR13	Murrieta Apartments (DP-2021-2355)	Multifamily Low Rise Multifamily Mid-Rise	153 DU 330 DU
MUR14	Kaiser (MDP-2014-347, DP-2014-348, DP-2020-2155)	Medical Office	90.000 TSF
MUR15	Physicians Hospital/Loma Linda Hospital (CUP-007-	Hospital	124 Beds
MUR16	Murrieta Hills (TTM 35853)	Single Family Residential Multifamily Low Rise Shopping Center	578 DU 172 DU 346.302 TSF
MUR17	Golden Cities (VTM 28532-3/DP-2016-1253)	Single Family Residential	69 DU
MUR18	Golden Cities (VTM 28532-5/DP-2016-1253)	Single Family Residential	119 DU
MUR19	Alderwood (TTM 32718)	Single Family Residential	10 DU
MUR20	Alderwood (TTM 34445/DP-2016-1253)	Single Family Residential	13 DU
MUR21	Hotel and Conference (DP-2019-1887)	Conference Room	15.295 TSF

<sup>1</sup> DU = Dwelling Units; TSF = Thousand Square Feet; RM = Rooms

Mr. Brian Stephenson  
City of Murrieta  
October 11, 2021  
Page 8 of 8

If you have any questions, please contact me directly at (949) 861-0177.

Respectfully submitted,

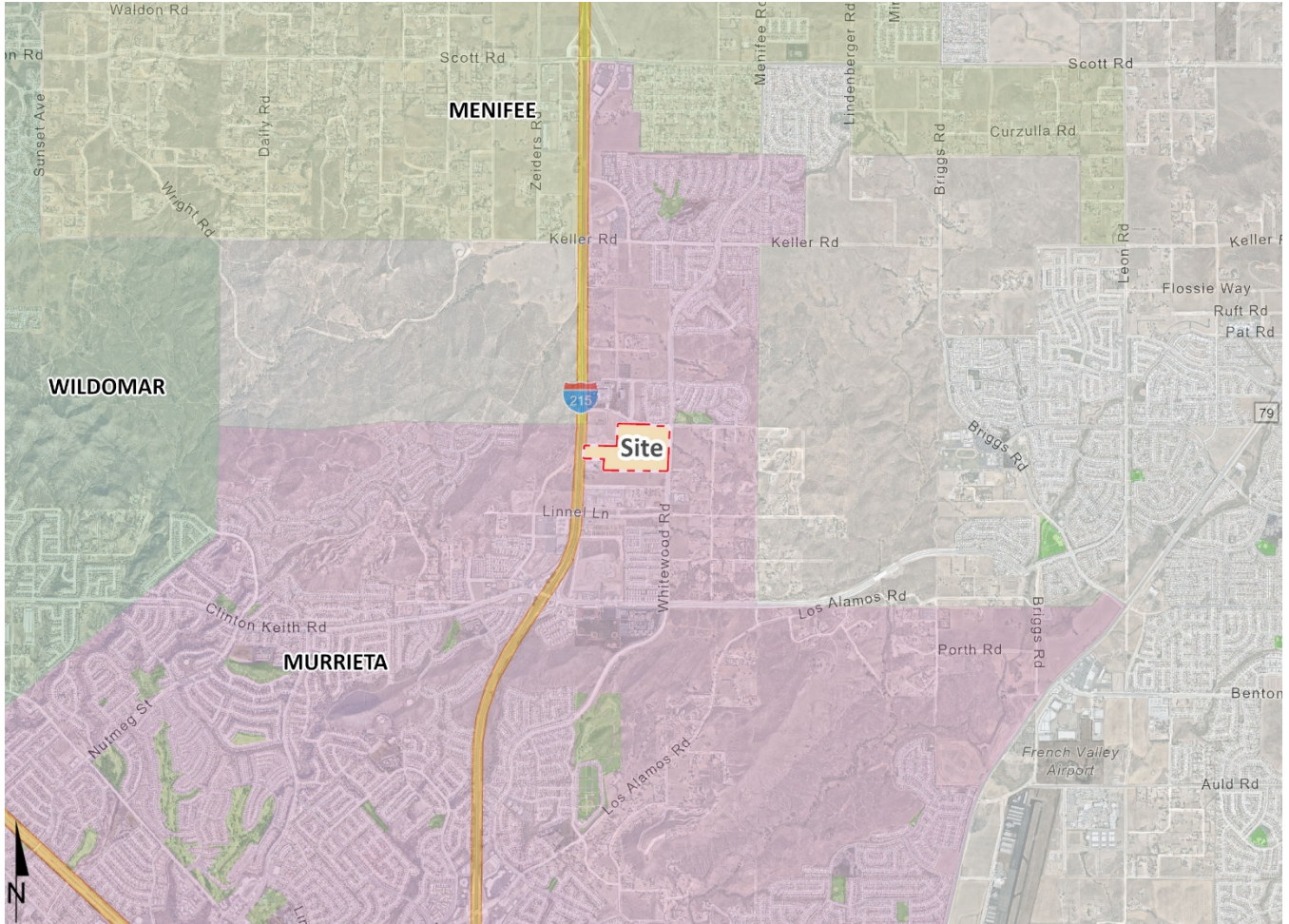
URBAN CROSSROADS, INC.

A handwritten signature in black ink that reads "Charlene So". The signature is written in a cursive, flowing style.

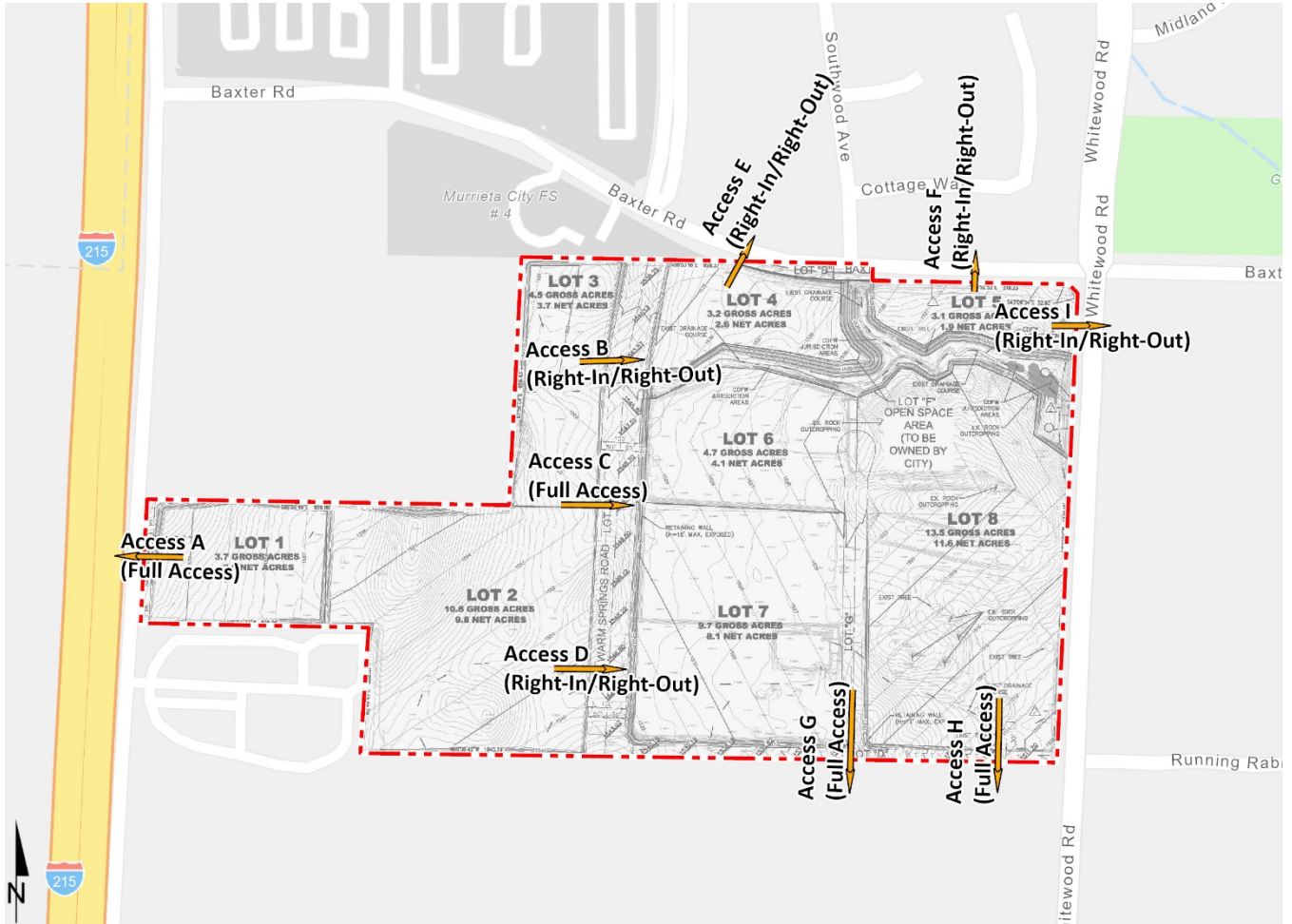
Charlene So, PE

Associate Principal

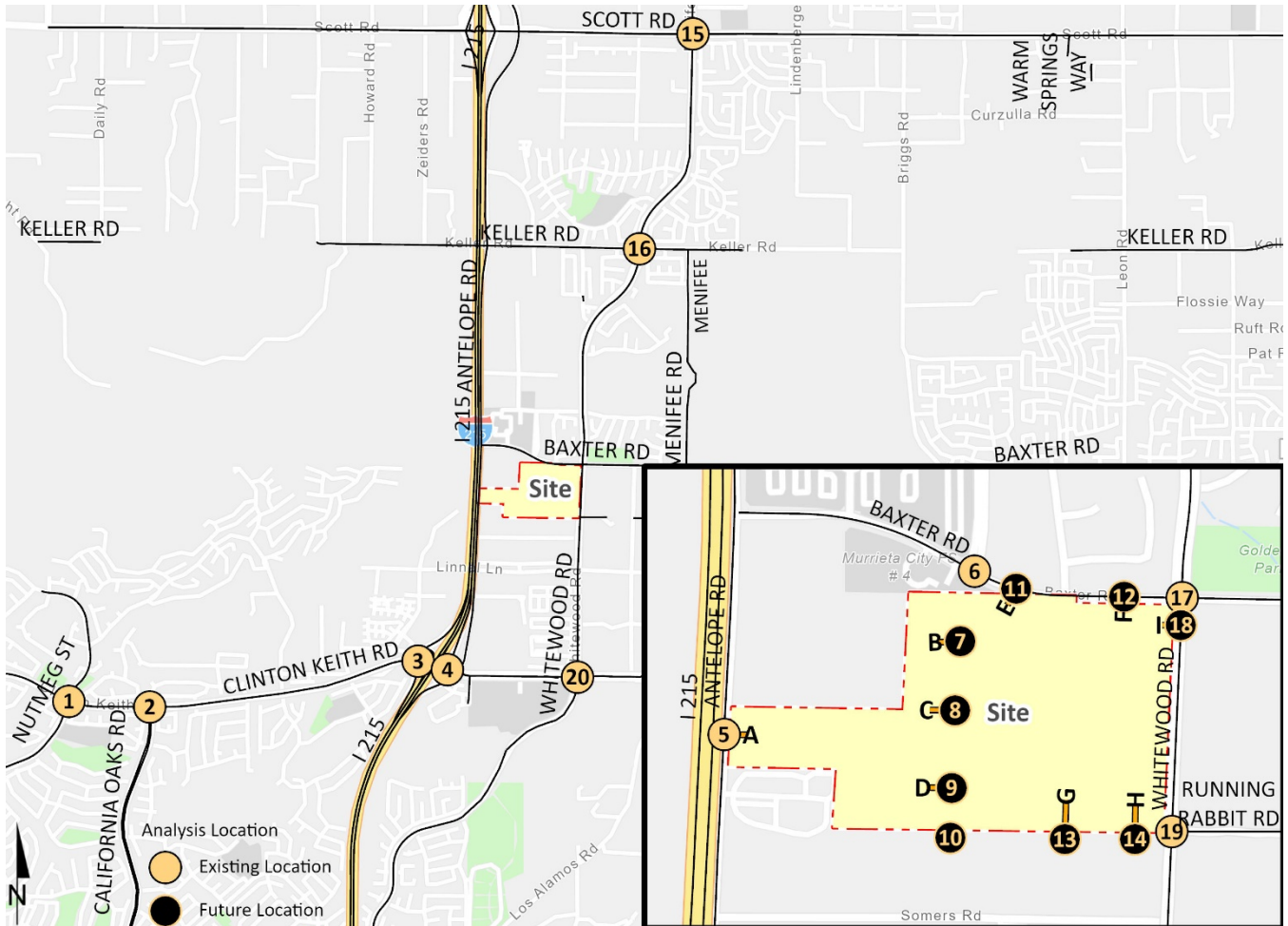
### EXHIBIT 1: LOCATION MAP



**EXHIBIT 2: PRELIMINARY PLAN**

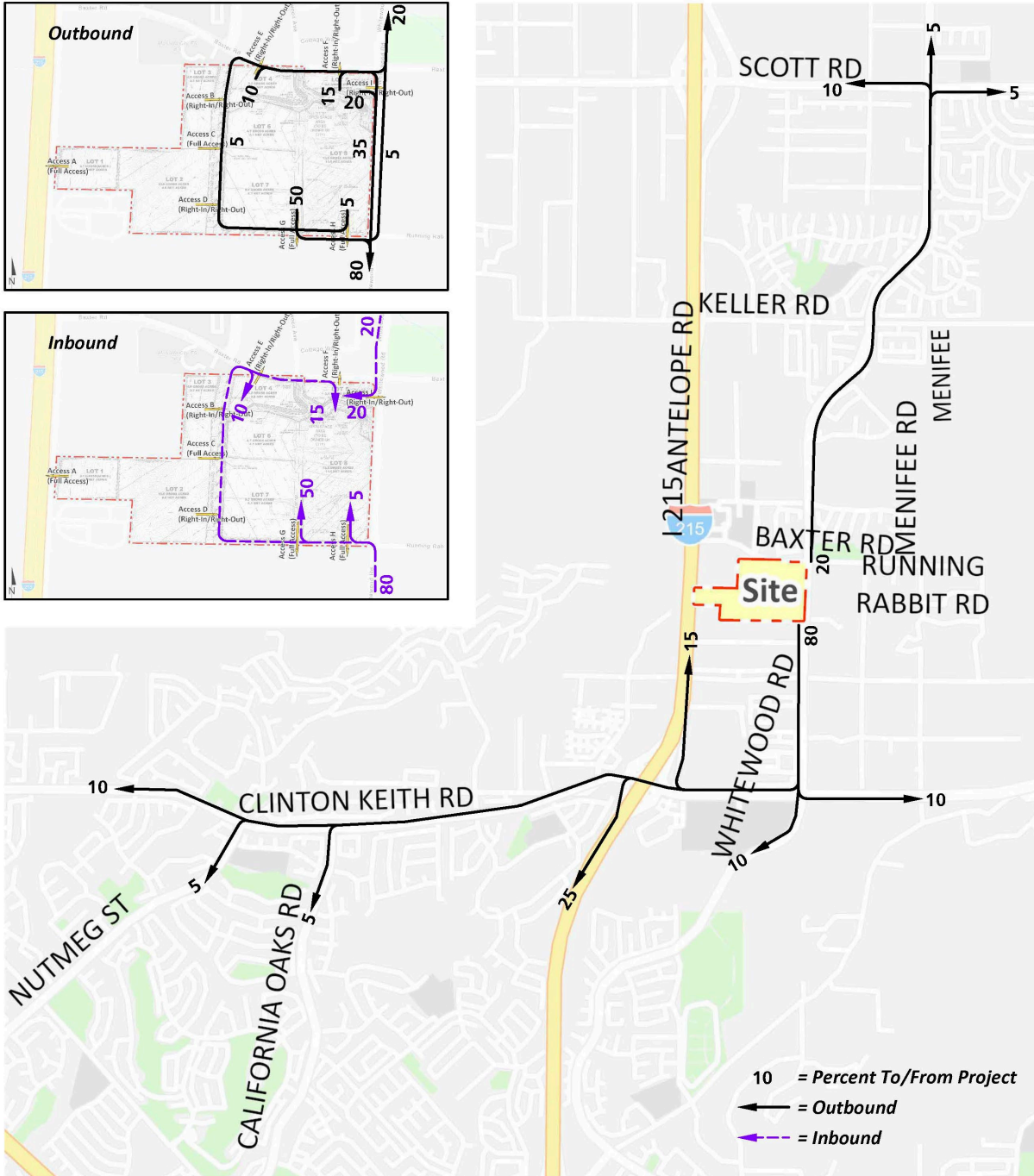


### EXHIBIT 3: STUDY AREA

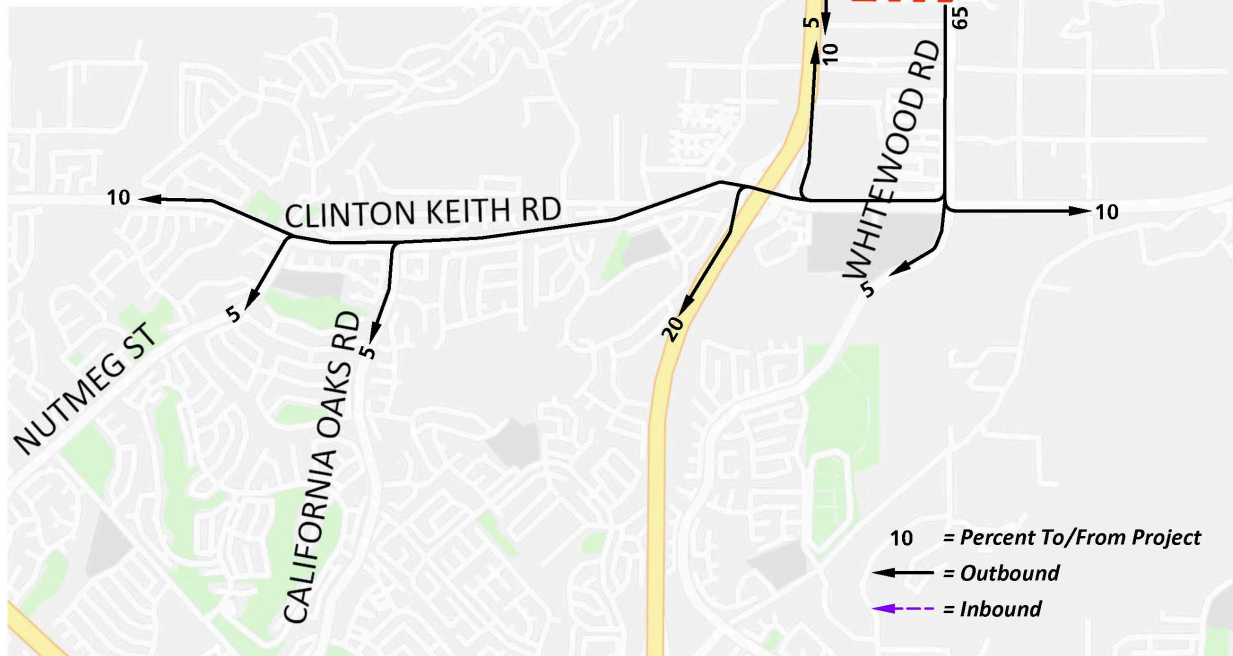
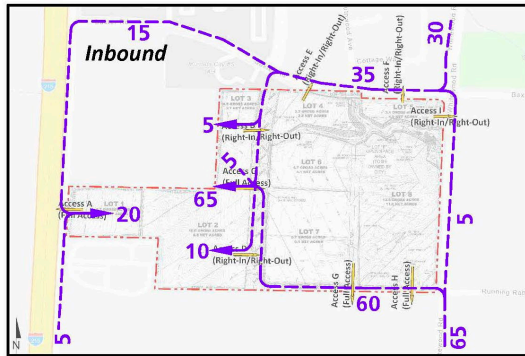
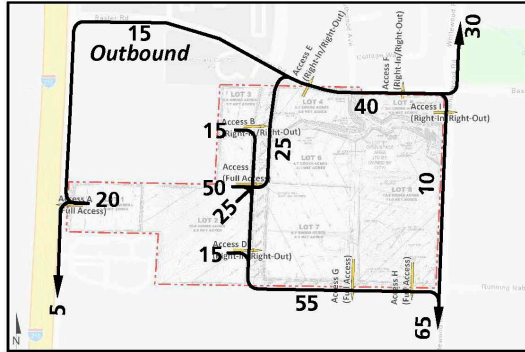




### EXHIBIT 4: PROJECT (RESIDENTIAL) TRIP DISTRIBUTION

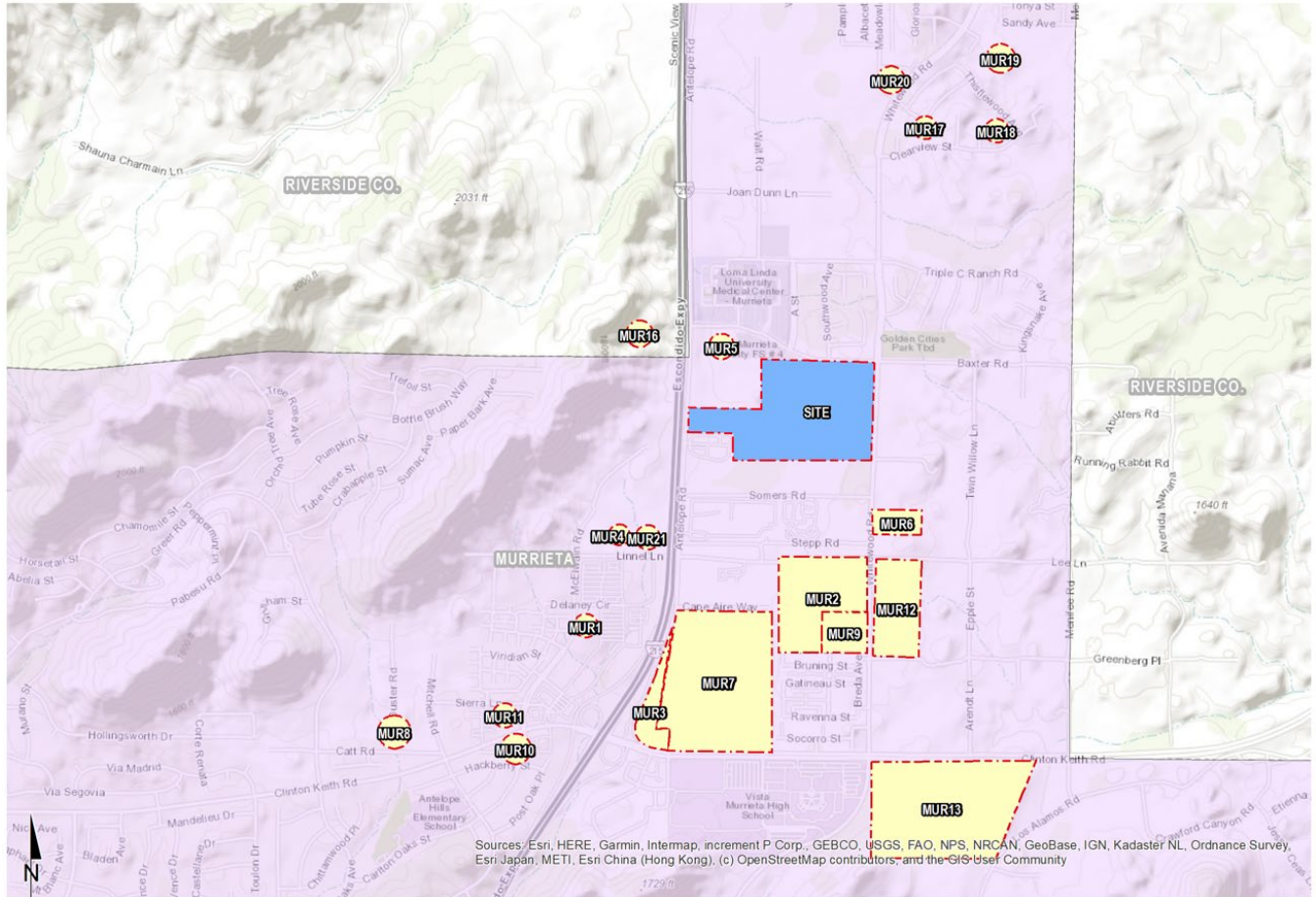


**EXHIBIT 5: PROJECT (INNOVATION DISTRICT) TRIP DISTRIBUTION**



10 = Percent To/From Project  
 ← = Outbound  
 ← (dashed) = Inbound

## EXHIBIT 6: CUMULATIVE DEVELOPMENT LOCATION MAP



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**APPENDIX 1.2:**  
**SITE ADJACENT QUEUES**

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**Intersection: 7: Antelope Rd. & Street A**

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	36	29
Average Queue (ft)	9	1
95th Queue (ft)	32	14
Link Distance (ft)	441	494
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 8: Warm Springs Rd. & Baxter Rd.**

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	TR	L	TR
Maximum Queue (ft)	28	92	55	78	167	167	46	34	40
Average Queue (ft)	6	14	9	20	53	61	19	5	10
95th Queue (ft)	23	55	33	52	137	146	45	22	34
Link Distance (ft)		1306	1306		168	168	188		1107
Upstream Blk Time (%)					0	1			
Queuing Penalty (veh)					2	4			
Storage Bay Dist (ft)	115			200				150	
Storage Blk Time (%)		0			0				
Queuing Penalty (veh)		0			0				

**Intersection: 9: Warm Springs Rd. & Street B**

Movement	EB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	174
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Warm Springs Rd. & Street C

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	47	55
Average Queue (ft)	19	6
95th Queue (ft)	45	31
Link Distance (ft)	202	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Warm Springs Rd. & Street D

Movement	EB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	9
95th Queue (ft)	32
Link Distance (ft)	341
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Running Rabbit Rd. & Warm Springs Rd.

Movement	SB
Directions Served	L
Maximum Queue (ft)	66
Average Queue (ft)	21
95th Queue (ft)	51
Link Distance (ft)	180
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	



**Intersection: 13: Street E & Baxter Rd.**

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	84	63	31
Average Queue (ft)	3	3	13
95th Queue (ft)	31	28	38
Link Distance (ft)	472	472	164
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 14: Street F & Baxter Rd.**

Movement	NB
Directions Served	LR
Maximum Queue (ft)	49
Average Queue (ft)	19
95th Queue (ft)	46
Link Distance (ft)	292
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 15: Running Rabbit Rd. & Street G**

Movement	SB
Directions Served	L
Maximum Queue (ft)	73
Average Queue (ft)	36
95th Queue (ft)	60
Link Distance (ft)	184
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 16: Running Rabbit Rd. & Street H

Movement	SB
Directions Served	LR
Maximum Queue (ft)	37
Average Queue (ft)	7
95th Queue (ft)	29
Link Distance (ft)	198
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Whitewood Rd. & Baxter Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	R	L	T	TR	L	L	T	TR	L
Maximum Queue (ft)	152	155	52	97	85	56	78	62	73	121	86	299
Average Queue (ft)	80	92	10	47	38	15	29	26	70	105	59	30
95th Queue (ft)	134	140	37	78	74	42	65	73	74	119	107	158
Link Distance (ft)			330	330			1885			73	73	
Upstream Blk Time (%)								0	73	87	11	
Queuing Penalty (veh)								0	0	395	51	
Storage Bay Dist (ft)	210	210			120	120		50	50			200
Storage Blk Time (%)								1	92	78		
Queuing Penalty (veh)								4	264	222		

Intersection: 19: Whitewood Rd. & Baxter Rd.

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	3861	3874
Average Queue (ft)	2465	2514
95th Queue (ft)	4172	4180
Link Distance (ft)	5719	5719
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	57	
Queuing Penalty (veh)	7	

Intersection: 20: Whitewood Rd. & Street I

Movement	EB	NB	NB
Directions Served	R	T	T
Maximum Queue (ft)	64	1119	894
Average Queue (ft)	21	1107	182
95th Queue (ft)	52	1148	672
Link Distance (ft)	273	1104	1104
Upstream Blk Time (%)		72	0
Queuing Penalty (veh)		326	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Whitewood Rd. & Running Rabbit Rd.

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	T	L	T
Maximum Queue (ft)	124	300	2250	2249	15	5
Average Queue (ft)	55	272	1686	1661	1	0
95th Queue (ft)	98	401	2923	2932	7	5
Link Distance (ft)	129		2215	2215		1104
Upstream Blk Time (%)	0		55	35		
Queuing Penalty (veh)	0		0	0		
Storage Bay Dist (ft)		200			200	
Storage Blk Time (%)		0	92			
Queuing Penalty (veh)		2	221			

Network Summary

Network wide Queuing Penalty: 1499
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**Intersection: 7: Antelope Rd. & Street A**

Movement	WB
Directions Served	LR
Maximum Queue (ft)	62
Average Queue (ft)	29
95th Queue (ft)	52
Link Distance (ft)	441
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 8: Warm Springs Rd. & Baxter Rd.**

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	TR	L	TR
Maximum Queue (ft)	23	179	125	47	59	77	85	24	46
Average Queue (ft)	2	67	36	9	16	26	40	8	13
95th Queue (ft)	11	142	92	31	46	63	69	26	37
Link Distance (ft)		1306	1306		168	168	188		1107
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	115			200				150	
Storage Blk Time (%)		2							
Queuing Penalty (veh)		0							

**Intersection: 9: Warm Springs Rd. & Street B**

Movement	EB
Directions Served	R
Maximum Queue (ft)	61
Average Queue (ft)	24
95th Queue (ft)	48
Link Distance (ft)	174
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 10: Warm Springs Rd. & Street C**

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	74	42
Average Queue (ft)	38	3
95th Queue (ft)	61	19
Link Distance (ft)	202	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 11: Warm Springs Rd. & Street D**

Movement	EB
Directions Served	R
Maximum Queue (ft)	61
Average Queue (ft)	25
95th Queue (ft)	53
Link Distance (ft)	341
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 12: Running Rabbit Rd. & Warm Springs Rd.**

Movement	SB
Directions Served	L
Maximum Queue (ft)	78
Average Queue (ft)	38
95th Queue (ft)	61
Link Distance (ft)	180
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: Street E & Baxter Rd.

Movement	NB
Directions Served	R
Maximum Queue (ft)	36
Average Queue (ft)	11
95th Queue (ft)	35
Link Distance (ft)	164
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Street F & Baxter Rd.

Movement	EB	NB
Directions Served	T	LR
Maximum Queue (ft)	59	32
Average Queue (ft)	3	12
95th Queue (ft)	40	35
Link Distance (ft)	472	287
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: Running Rabbit Rd. & Street G

Movement	SB
Directions Served	L
Maximum Queue (ft)	65
Average Queue (ft)	29
95th Queue (ft)	54
Link Distance (ft)	184
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 16: Running Rabbit Rd. & Street H

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	45	31
Average Queue (ft)	4	6
95th Queue (ft)	27	26
Link Distance (ft)	321	198
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Whitewood Rd. & Baxter Rd.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	T	R	L	T	TR	L	T	TR	L	T
Maximum Queue (ft)	260	307	299	193	99	42	74	72	124	111	299	460
Average Queue (ft)	180	186	39	82	46	3	29	69	107	84	24	281
95th Queue (ft)	273	300	168	144	85	22	66	74	122	102	130	457
Link Distance (ft)			330	330			1885		72	72		5708
Upstream Blk Time (%)			1					63	86	46		
Queuing Penalty (veh)			3					0	698	374		
Storage Bay Dist (ft)	210	210			120	120		50			200	
Storage Blk Time (%)	7	9	0		0			89	73			24
Queuing Penalty (veh)	2	3	2		0			542	255			3

Intersection: 19: Whitewood Rd. & Baxter Rd.

Movement	SB
Directions Served	TR
Maximum Queue (ft)	507
Average Queue (ft)	314
95th Queue (ft)	499
Link Distance (ft)	5708
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 20: Whitewood Rd. & Street I

Movement	EB	NB	NB
Directions Served	R	T	T
Maximum Queue (ft)	43	1132	1160
Average Queue (ft)	16	1115	1123
95th Queue (ft)	42	1127	1149
Link Distance (ft)	273	1104	1104
Upstream Blk Time (%)		44	33
Queuing Penalty (veh)		359	268
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Whitewood Rd. & Running Rabbit Rd.

Movement	EB	WB	NB	NB	NB	SB
Directions Served	LTR	LTR	L	T	T	T
Maximum Queue (ft)	140	30	300	2272	2272	5
Average Queue (ft)	82	6	295	2231	2231	0
95th Queue (ft)	139	22	352	2296	2296	3
Link Distance (ft)	129	748		2215	2215	1104
Upstream Blk Time (%)	2			97	76	
Queuing Penalty (veh)	4			0	0	
Storage Bay Dist (ft)			200			
Storage Blk Time (%)			0	99		
Queuing Penalty (veh)			2	220		

Network Summary

Network wide Queuing Penalty: 2735
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**APPENDIX 3.1:**  
**EXISTING TRAFFIC COUNTS**

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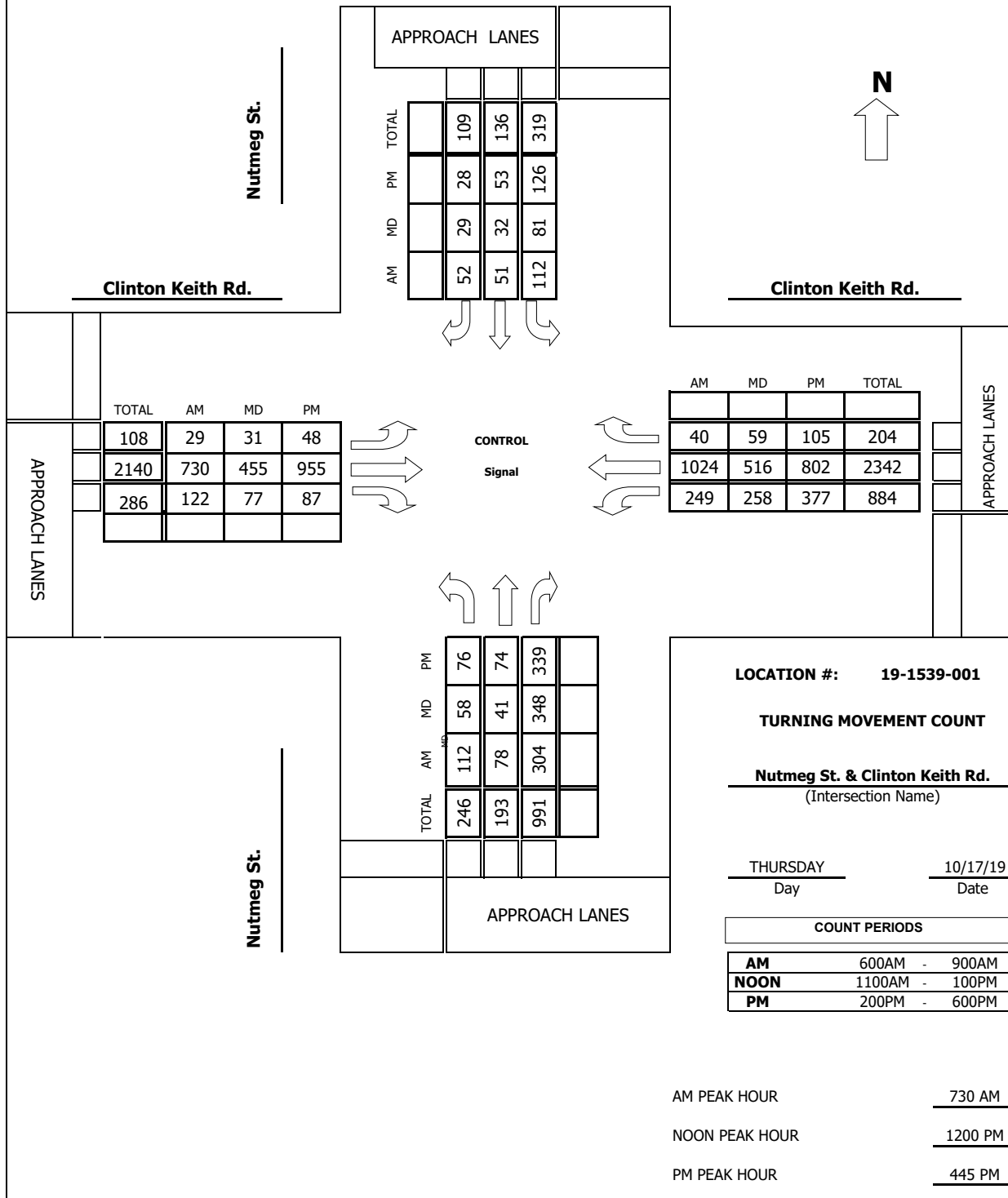
# Intersection Turning Movement

Prepared by:



Project #: 19-1539-001

## TMC SUMMARY OF Nutmeg St. & Clinton Keith Rd.



## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **Nutmeg St.**      DATE: **10/17/19**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd.**      DAY: **THURSDAY**      PROJECT# **19-1539-001**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	1	1	0	1	2	0	1	2	0	
6:00 AM	5	7	28	6	4	3	2	151	3	29	103	2	343
6:15 AM	4	8	32	10	2	7	7	185	6	51	112	5	429
6:30 AM	13	6	55	24	10	10	2	208	7	54	222	7	618
6:45 AM	12	9	50	35	11	9	6	222	15	41	236	10	656
7:00 AM	17	19	69	26	14	15	9	208	27	75	252	11	742
7:15 AM	22	22	68	23	16	8	6	201	24	59	241	8	698
7:30 AM	19	23	68	14	13	2	6	214	18	66	245	10	698
7:45 AM	28	20	87	38	9	14	5	186	43	60	223	13	726
8:00 AM	24	12	74	27	11	15	8	169	32	65	258	8	703
8:15 AM	41	23	75	33	18	21	10	161	29	58	298	9	776
8:30 AM	39	29	59	25	16	19	4	128	38	54	269	6	686
8:45 AM	30	30	69	24	19	17	9	130	25	74	243	3	673
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	254	208	734	285	143	140	74	2163	267	686	2702	92	7748
Approach %	21.24	17.39	61.37	50.18	25.18	24.65	2.96	86.38	10.66	19.71	77.64	2.64	
App/Depart	1196	/	374	568	/	1096	2504	/	3182	3480	/	3096	

AM Peak Hr Begins at: 730 AM

**PEAK**

Volumes	112	78	304	112	51	52	29	730	122	249	1024	40	2903
Approach %	22.67	15.79	61.54	52.09	23.72	24.19	3.29	82.86	13.85	18.96	77.99	3.05	

**PEAK HR.**

FACTOR:	0.888	0.747	0.925	0.899	0.935
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CONTROL: **Signal**  
 COMMENT 1:  
 GPS: **33.595900, -117.204049**

# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: Nutmeg St.      DATE: 10/17/19      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd.      DAY: THURSDAY      PROJECT#: 19-1539-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM	20	14	69	22	11	3	6	169	24	75	156	15	584
2:15 PM	23	16	66	21	11	1	11	166	15	81	161	18	590
2:30 PM	20	19	60	19	23	6	8	161	16	103	165	17	617
2:45 PM	17	37	87	19	13	7	4	154	15	82	258	20	713
3:00 PM	22	31	74	23	10	10	13	174	10	90	241	23	721
3:15 PM	10	17	78	22	5	0	9	185	17	86	242	13	684
3:30 PM	15	19	80	21	14	7	10	188	27	100	239	23	743
3:45 PM	11	18	85	10	7	7	9	185	18	104	233	17	704
4:00 PM	6	14	89	13	10	7	7	196	18	85	258	21	724
4:15 PM	10	16	99	17	4	1	8	201	15	79	244	19	713
4:30 PM	16	24	74	16	9	12	17	211	16	89	241	31	756
4:45 PM	21	10	75	37	11	11	11	212	23	83	208	33	735
5:00 PM	15	16	85	21	15	7	15	236	18	98	204	21	751
5:15 PM	24	27	89	37	14	6	14	258	18	98	201	28	814
5:30 PM	16	21	90	31	13	4	8	249	28	98	189	23	770
5:45 PM	11	22	87	21	10	4	2	269	16	66	191	13	712
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	257	321	1287	350	180	93	152	3214	294	1417	3431	335	11331
Approach %	13.78	17.21	69.01	56.18	28.89	14.93	4.15	87.81	8.03	27.34	66.20	6.46	
App/Depart	1865	/	808	623	/	1891	3660	/	4851	5183	/	3781	

PM Peak Hr Begins at: 445 PM

**PEAK**

Volumes	76	74	339	126	53	28	48	955	87	377	802	105	3070
Approach %	15.54	15.13	69.33	60.87	25.60	13.53	4.40	87.61	7.98	29.36	62.46	8.18	

**PEAK HR.**

FACTOR:	0.873	0.877	0.940	0.982	0.943
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CONTROL: Signal  
 COMMENT 1: 0  
 GPS: 33.595900, -117.204049



### Pedestrian & Bicycle Study

**N-S STREET:** Nutmeg St.  
**E-W STREET:** Clinton Keith Rd.

**Date:** 10/17/19  
**Day:** THURSDAY

**City:** Murrieta  
**Project #:** 19-1539-00

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	1	1	0	0
6:15 AM	0	0	0	0
6:30 AM	3	0	0	0
6:45 AM	3	1	1	0
7:00 AM	2	0	0	0
7:15 AM	1	2	0	0
7:30 AM	0	3	0	0
7:45 AM	0	5	0	1
8:00 AM	0	0	0	0
8:15 AM	0	1	0	0
8:30 AM	0	0	0	0
8:45 AM	0	1	0	0
<b>TOTAL</b>	<b>10</b>	<b>14</b>	<b>1</b>	<b>1</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	2	2	0
11:30 AM	0	1	1	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	1	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>0</b>

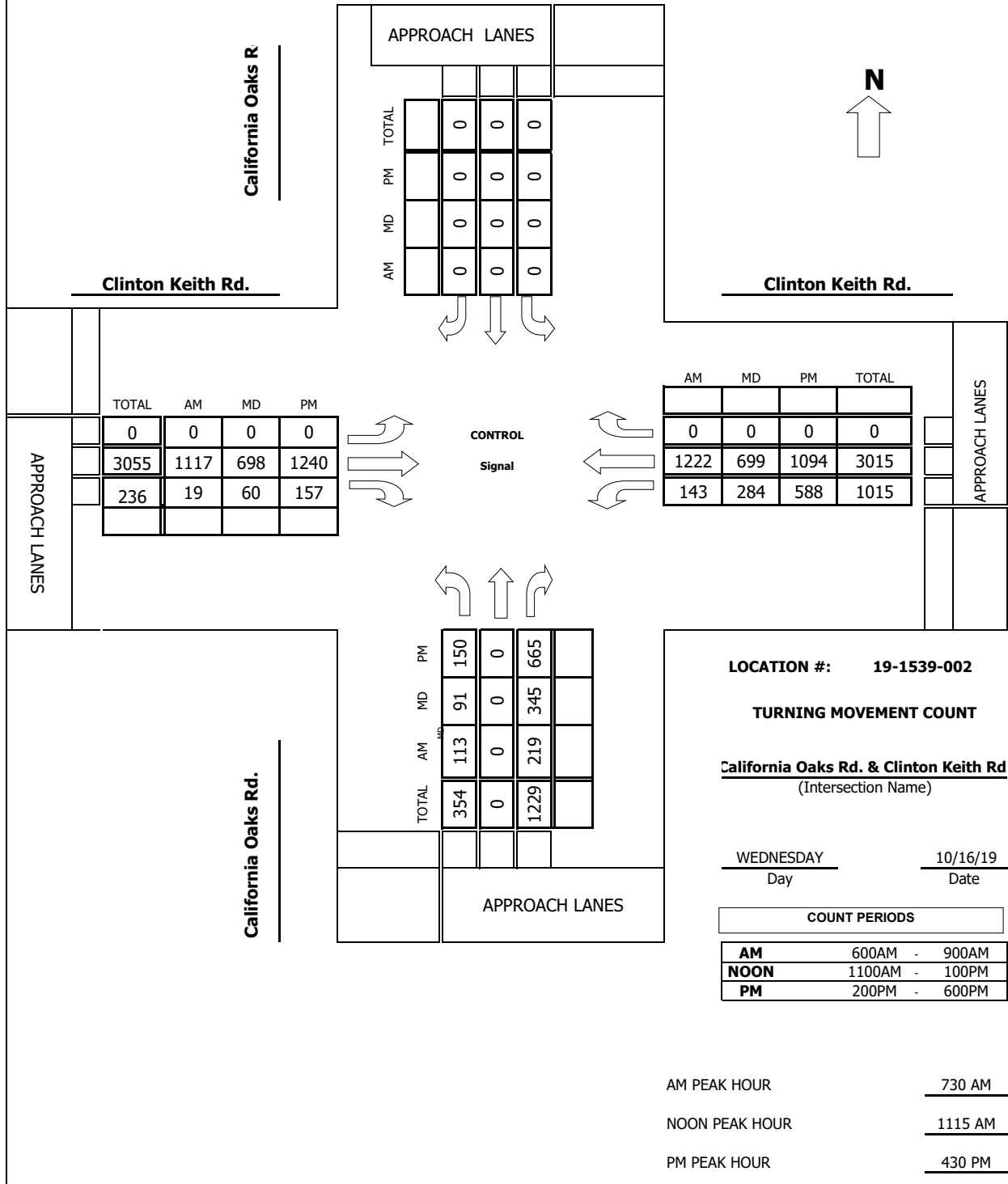
	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	1	0
2:15 PM	0	1	2	0
2:30 PM	1	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	1	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	9	0	9	0
4:00 PM	2	0	1	0
4:15 PM	0	0	0	0
4:30 PM	3	1	1	2
4:45 PM	1	0	2	1
5:00 PM	0	1	1	0
5:15 PM	0	1	0	0
5:30 PM	0	2	0	0
5:45 PM	1	0	0	0
<b>TOTAL</b>	<b>17</b>	<b>6</b>	<b>18</b>	<b>3</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	1	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	1	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	1	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Project #:** 19-1539-002

**TMC SUMMARY OF California Oaks Rd. & Clinton Keith Rd.**



## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: California Oaks Rd.      DATE: 10/16/19      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd.      DAY: WEDNESDAY      PROJECT#: 19-1539-002

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1.5	0	1.5	0	0	0	0	2	0	1	2	0	
6:00 AM	10	0	16	0	0	0	0	213	8	11	89	0	347
6:15 AM	13	0	28	0	0	0	0	258	11	27	149	0	486
6:30 AM	11	0	14	0	0	0	0	319	10	18	269	0	641
6:45 AM	19	0	29	0	0	0	0	285	8	19	274	0	634
7:00 AM	16	0	37	0	0	0	0	299	5	22	285	0	664
7:15 AM	21	0	33	0	0	0	0	298	9	29	282	0	672
7:30 AM	29	0	47	0	0	0	0	317	6	24	287	0	710
7:45 AM	28	0	45	0	0	0	0	301	3	32	276	0	685
8:00 AM	26	0	55	0	0	0	0	258	2	36	301	0	678
8:15 AM	30	0	72	0	0	0	0	241	8	51	358	0	760
8:30 AM	24	0	77	0	0	0	0	173	5	49	311	0	639
8:45 AM	27	0	69	0	0	0	0	177	7	59	298	0	637
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	254	0	522	0	0	0	0	3139	82	377	3179	0	7553
Approach %	32.73	0.00	67.27	####	####	####	0.00	97.45	2.55	10.60	89.40	0.00	
App/Depart	776	/	0	0	/	459	3221	/	3661	3556	/	3433	

AM Peak Hr Begins at: 730 AM

**PEAK**

Volumes	113	0	219	0	0	0	0	1117	19	143	1222	0	2833
Approach %	34.04	0.00	65.96	####	####	####	0.00	98.33	1.67	10.48	89.52	0.00	

**PEAK HR.**

FACTOR:	0.814	0.000	0.879	0.834	0.932
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CONTROL: Signal  
 COMMENT 1:  
 GPS: 33.595588, -117.197400



# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: California Oaks Rd.      DATE: 10/16/19      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd.      DAY: WEDNESDAY      PROJECT#: 19-1539-002

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1.5	0	1.5	0	0	0	0	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM	45	0	128	0	0	0	0	203	32	76	196	0	680
2:15 PM	41	0	122	0	0	0	0	228	34	82	199	0	706
2:30 PM	62	0	131	0	0	0	0	196	29	118	198	0	734
2:45 PM	86	0	128	0	0	0	0	214	24	113	285	0	850
3:00 PM	62	0	124	0	0	0	0	225	48	121	249	0	829
3:15 PM	86	0	141	0	0	0	0	242	31	147	258	0	905
3:30 PM	52	0	143	0	0	0	0	233	37	139	273	0	877
3:45 PM	66	0	139	0	0	0	0	258	22	145	296	0	926
4:00 PM	39	0	133	0	0	0	0	252	25	154	311	0	914
4:15 PM	32	0	145	0	0	0	0	246	38	147	328	0	936
4:30 PM	34	0	151	0	0	0	0	289	45	148	302	0	969
4:45 PM	49	0	187	0	0	0	0	301	21	146	279	0	983
5:00 PM	43	0	139	0	0	0	0	328	59	151	258	0	978
5:15 PM	24	0	188	0	0	0	0	322	32	143	255	0	964
5:30 PM	25	0	151	0	0	0	0	341	52	133	249	0	951
5:45 PM	22	0	147	0	0	0	0	345	43	121	269	0	947
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	768	0	2297	0	0	0	0	4223	572	2084	4205	0	14149
Approach %	25.06	0.00	74.94	####	####	####	0.00	88.07	11.93	33.14	66.86	0.00	
App/Depart	3065	/	0	0	/	2656	4795	/	6520	6289	/	4973	

PM Peak Hr Begins at: 430 PM

**PEAK**

Volumes	150	0	665	0	0	0	0	1240	157	588	1094	0	3894
Approach %	18.40	0.00	81.60	####	####	####	0.00	88.76	11.24	34.96	65.04	0.00	

**PEAK HR.**

FACTOR:	0.863	0.000	0.902	0.934	0.990
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CONTROL: Signal  
 COMMENT 1: 0  
 GPS: 33.595588, -117.197400



### Pedestrian & Bicycle Study

**N-S STREET:** California Oaks Rd.  
**E-W STREET:** Clinton Keith Rd.

**Date:** 10/16/19  
**Day:** WEDNESDAY

**City:** Murrieta  
**Project #:** 19-1539-00

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	1	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	2	0	0
11:45 AM	0	4	0	0
12:00 PM	0	1	0	0
12:15 PM	0	2	0	0
12:30 PM	0	2	0	0
12:45 PM	0	0	0	1
<b>TOTAL</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>1</b>

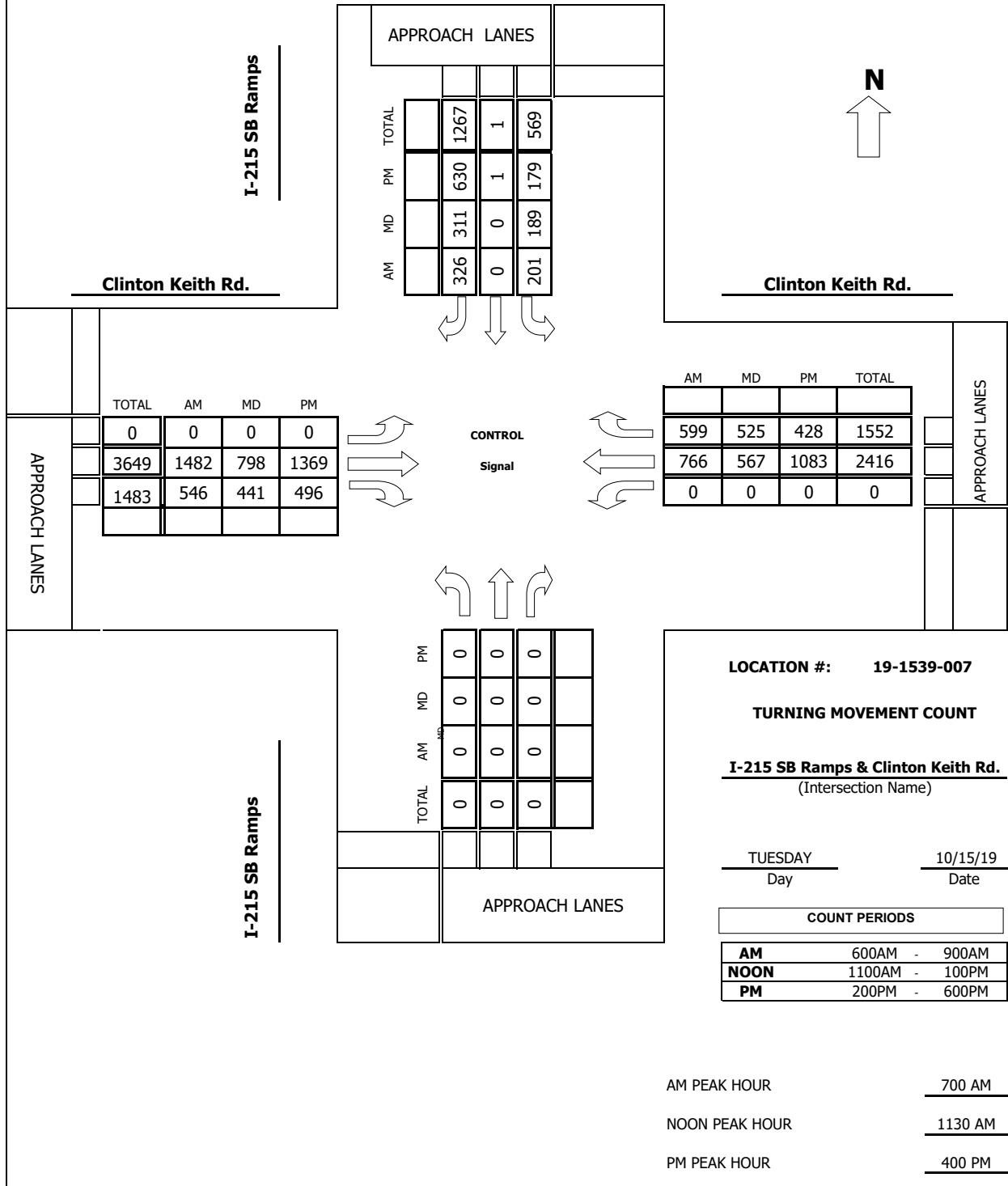
	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	1	0	0
11:30 AM	1	1	0	0
11:45 AM	0	0	0	0
12:00 PM	2	0	0	0
12:15 PM	0	1	0	0
12:30 PM	0	1	0	0
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	2	0	0
2:15 PM	0	1	2	0
2:30 PM	0	9	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	1	0	0
3:30 PM	0	2	0	0
3:45 PM	0	0	2	1
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	1
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>15</b>	<b>4</b>	<b>2</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	1	1	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>

**Project #:** 19-1539-007

**TMC SUMMARY OF I-215 SB Ramps & Clinton Keith Rd.**



## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **I-215 SB Ramps**      DATE: **10/15/19**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd.**      DAY: **TUESDAY**      PROJECT# **19-1539-007**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0.5	0.5	2	0	3	1	0	3	1	
6:00 AM	0	0	0	39	0	78	0	328	54	0	99	76	674
6:15 AM	0	0	0	42	0	80	0	401	69	0	98	88	778
6:30 AM	0	0	0	50	0	89	0	428	63	0	149	80	859
6:45 AM	0	0	0	45	0	88	0	433	66	0	141	98	871
7:00 AM	0	0	0	55	0	86	0	439	68	0	169	102	919
7:15 AM	0	0	0	82	0	79	0	401	139	0	182	137	1020
7:30 AM	0	0	0	32	0	80	0	341	177	0	228	173	1031
7:45 AM	0	0	0	32	0	81	0	301	162	0	187	187	950
8:00 AM	0	0	0	34	0	106	0	258	105	0	183	164	850
8:15 AM	0	0	0	35	0	122	0	269	117	0	229	143	915
8:30 AM	0	0	0	38	0	118	0	308	123	0	139	152	878
8:45 AM	0	0	0	44	0	132	0	231	141	0	143	169	860
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	528	0	1139	0	4138	1284	0	1947	1569	10605
Approach %	####	####	####	31.67	0.00	68.33	0.00	76.32	23.68	0.00	55.38	44.62	
App/Depart	0	/	1569	1667	/	1284	5422	/	4666	3516	/	3086	

AM Peak Hr Begins at: 700 AM

**PEAK**

Volumes	0	0	0	201	0	326	0	1482	546	0	766	599	3920
Approach %	####	####	####	38.14	0.00	61.86	0.00	73.08	26.92	0.00	56.12	43.88	

**PEAK HR.**

FACTOR:	0.000	0.818	0.939	0.851	0.951
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CONTROL: **Signal**  
 COMMENT 1:  
 GPS: **33.598814, -117.175741**

# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: I-215 SB Ramps      DATE: 10/15/19      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd.      DAY: TUESDAY      PROJECT#: 19-1539-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	0.5	0.5	2	0	3	1	0	3	1	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM	0	0	0	38	0	78	0	221	88	0	181	82	688
2:15 PM	0	0	0	38	0	123	0	289	66	0	219	93	828
2:30 PM	0	0	0	39	0	120	0	229	97	0	209	100	794
2:45 PM	0	0	0	37	1	134	0	339	111	0	339	89	1050
3:00 PM	0	0	0	32	0	115	0	308	124	0	308	109	996
3:15 PM	0	0	0	46	0	123	0	287	115	0	269	81	921
3:30 PM	0	0	0	48	0	124	0	349	129	0	267	94	1011
3:45 PM	0	0	0	48	0	149	0	341	100	0	299	107	1044
4:00 PM	0	0	0	54	0	160	0	328	126	0	269	86	1023
4:15 PM	0	0	0	41	0	160	0	298	120	0	258	122	999
4:30 PM	0	0	0	38	0	167	0	369	116	0	274	105	1069
4:45 PM	0	0	0	46	1	143	0	374	134	0	282	115	1095
5:00 PM	0	0	0	65	0	194	0	318	89	0	219	94	979
5:15 PM	0	0	0	59	1	188	0	282	158	0	233	112	1033
5:30 PM	0	0	0	57	0	163	0	391	97	0	249	90	1047
5:45 PM	0	0	0	56	0	169	0	449	96	0	252	99	1121
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	742	3	2310	0	5172	1766	0	4127	1578	15698
Approach %	####	####	####	24.29	0.10	75.61	0.00	74.55	25.45	0.00	72.34	27.66	
App/Depart	0	/	1578	3055	/	1769	6938	/	5914	5705	/	6437	

PM Peak Hr Begins at: 400 PM

**PEAK**

Volumes	0	0	0	179	1	630	0	1369	496	0	1083	428	4186
Approach %	####	####	####	22.10	0.12	77.78	0.00	73.40	26.60	0.00	71.67	28.33	

**PEAK HR.**

FACTOR:	0.000	0.946	0.918	0.952	0.956
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CONTROL: Signal  
 COMMENT 1: 0  
 GPS: 33.598814, -117.175741



### Pedestrian & Bicycle Study

**N-S STREET:** I-215 SB Ramps  
**E-W STREET:** Clinton Keith Rd.

**Date:** 10/15/19  
**Day:** TUESDAY

**City:** Murrieta  
**Project #:** 19-1539-00

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	2	0	0
7:15 AM	0	9	2	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>11</b>	<b>2</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	1	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	3	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	2	0	0
8:45 AM	0	2	0	0
<b>TOTAL</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	1	0	0
12:00 PM	0	4	0	0
12:15 PM	0	38	0	0
12:30 PM	0	29	0	0
12:45 PM	0	4	0	0
<b>TOTAL</b>	<b>0</b>	<b>76</b>	<b>0</b>	<b>0</b>

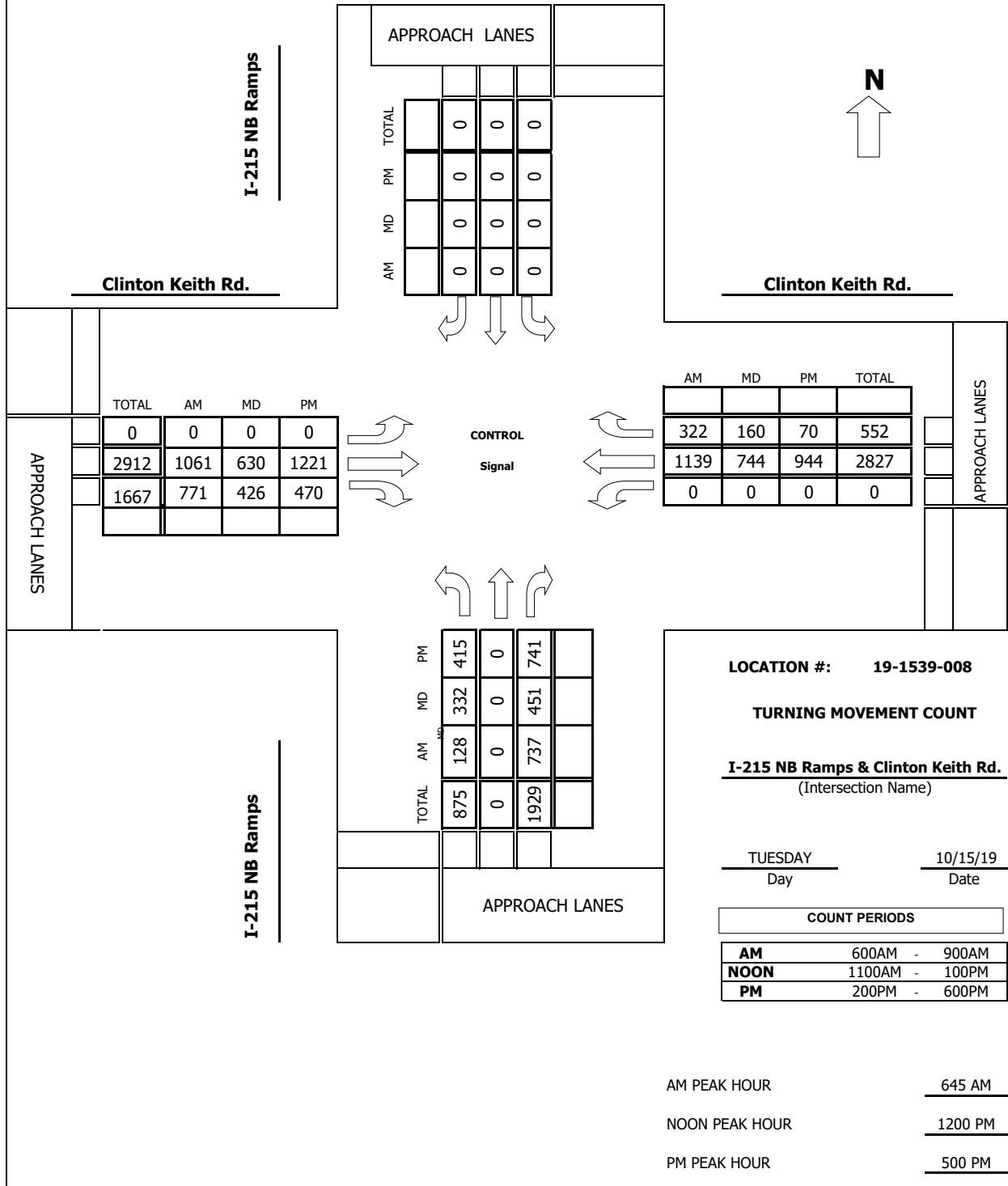
	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	1	0	0	0
11:15 AM	0	0	0	0
11:30 AM	1	0	0	0
11:45 AM	0	2	0	0
12:00 PM	1	0	0	0
12:15 PM	1	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	1	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	1	0	6
3:45 PM	0	0	0	0
4:00 PM	0	3	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	2
5:15 PM	0	1	0	20
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>28</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Project #:** 19-1539-008

**TMC SUMMARY OF I-215 NB Ramps & Clinton Keith Rd.**



## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **I-215 NB Ramps**      DATE: **10/15/19**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd.**      DAY: **TUESDAY**      PROJECT# **19-1539-008**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	0	1	0	0	0	0	3	1	0	3	1	
6:00 AM	19	0	120	0	0	0	0	229	143	0	164	87	762
6:15 AM	17	0	133	0	0	0	0	285	174	0	185	74	868
6:30 AM	21	0	139	0	0	0	0	289	185	0	214	78	926
6:45 AM	28	0	186	0	0	0	0	296	187	0	220	80	997
7:00 AM	31	0	195	0	0	0	0	307	193	0	243	86	1055
7:15 AM	28	0	261	0	0	0	0	299	179	0	301	68	1136
7:30 AM	41	0	95	0	0	0	0	159	212	0	375	88	970
7:45 AM	47	0	89	0	0	0	0	159	166	0	320	63	844
8:00 AM	43	0	77	0	0	0	0	140	134	0	309	60	763
8:15 AM	51	0	65	0	0	0	0	134	173	0	341	23	787
8:30 AM	37	0	78	0	0	0	0	180	173	0	252	41	761
8:45 AM	49	0	67	0	0	0	0	139	135	0	262	35	687
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	412	0	1505	0	0	0	0	2616	2054	0	3186	783	10556
Approach %	21.49	0.00	78.51	####	####	####	0.00	56.02	43.98	0.00	80.27	19.73	
App/Depart	1917	/	783	0	/	2054	4670	/	4121	3969	/	3598	

AM Peak Hr Begins at: 645 AM

**PEAK**

Volumes	128	0	737	0	0	0	0	1061	771	0	1139	322	4158
Approach %	14.80	0.00	85.20	####	####	####	0.00	57.91	42.09	0.00	77.96	22.04	

**PEAK HR.**

FACTOR:	0.748	0.000	0.916	0.789	0.915
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CONTROL: **Signal**  
 COMMENT 1:  
 GPS: **33.598210, -117.173300**



# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **I-215 NB Ramps**      DATE: **10/15/19**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd.**      DAY: **TUESDAY**      PROJECT#: **19-1539-008**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	0	1	0	0	0	0	3	1	0	3	1	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM	79	0	119	0	0	0	0	157	105	0	179	11	650
2:15 PM	103	0	124	0	0	0	0	192	139	0	219	31	808
2:30 PM	96	0	147	0	0	0	0	172	102	0	190	24	731
2:45 PM	98	0	150	0	0	0	0	247	138	0	332	42	1007
3:00 PM	103	0	145	0	0	0	0	228	118	0	320	33	947
3:15 PM	129	0	188	0	0	0	0	211	126	0	222	17	893
3:30 PM	121	0	177	0	0	0	0	266	134	0	239	21	958
3:45 PM	109	0	161	0	0	0	0	268	130	0	312	18	998
4:00 PM	124	0	176	0	0	0	0	291	97	0	228	10	926
4:15 PM	126	0	186	0	0	0	0	261	82	0	262	21	938
4:30 PM	100	0	176	0	0	0	0	312	103	0	258	20	969
4:45 PM	131	0	185	0	0	0	0	315	110	0	267	14	1022
5:00 PM	105	0	183	0	0	0	0	265	110	0	211	20	894
5:15 PM	116	0	190	0	0	0	0	235	110	0	228	19	898
5:30 PM	98	0	175	0	0	0	0	342	122	0	251	11	999
5:45 PM	96	0	193	0	0	0	0	379	128	0	254	20	1070
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	1734	0	2675	0	0	0	0	4141	1854	0	3972	332	14708
Approach %	39.33	0.00	60.67	####	####	####	0.00	69.07	30.93	0.00	92.29	7.71	
App/Depart	4409	/	332	0	/	1854	5995	/	6816	4304	/	5706	

PM Peak Hr Begins at: 500 PM

**PEAK**

Volumes	415	0	741	0	0	0	0	1221	470	0	944	70	3861
Approach %	35.90	0.00	64.10	####	####	####	0.00	72.21	27.79	0.00	93.10	6.90	

**PEAK HR.**

FACTOR:	0.944	0.000	0.834	0.925	0.902
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CONTROL: **Signal**  
 COMMENT 1: **0**  
 GPS: **33.598210, -117.173300**



### Pedestrian & Bicycle Study

**N-S STREET:** I-215 NB Ramps  
**E-W STREET:** Clinton Keith Rd.

**Date:** 10/15/19  
**Day:** TUESDAY

**City:** Murrieta  
**Project #:** 19-1539-00

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	1	0	0
6:30 AM	1	0	0	0
6:45 AM	1	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	5	0	0
7:30 AM	1	0	0	0
7:45 AM	1	30	0	0
8:00 AM	0	8	0	1
8:15 AM	0	21	0	0
8:30 AM	0	2	0	0
8:45 AM	20	1	0	0
<b>TOTAL</b>	<b>24</b>	<b>69</b>	<b>0</b>	<b>1</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	1	1	0	0
6:45 AM	0	0	0	0
7:00 AM	1	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	1	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>

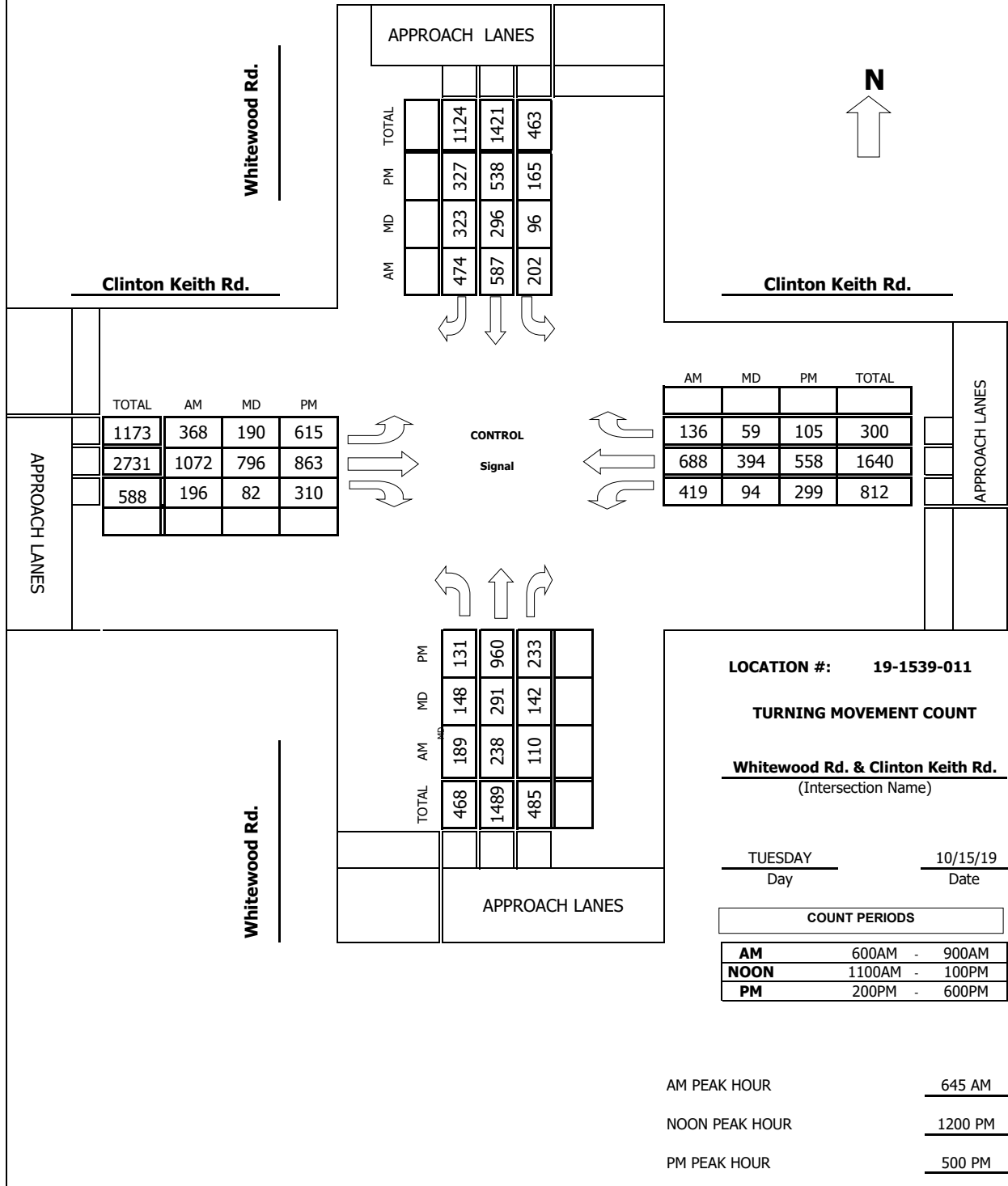
	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	1	0	0
11:15 AM	2	1	0	0
11:30 AM	0	2	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	1	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	0	0
2:15 PM	0	1	0	0
2:30 PM	0	3	0	0
2:45 PM	0	21	0	0
3:00 PM	0	19	0	0
3:15 PM	0	26	0	0
3:30 PM	0	7	0	0
3:45 PM	0	21	0	0
4:00 PM	0	15	0	0
4:15 PM	0	6	0	0
4:30 PM	0	8	0	0
4:45 PM	0	6	0	0
5:00 PM	0	8	0	0
5:15 PM	0	6	0	0
5:30 PM	0	1	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>148</b>	<b>0</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	0	0
2:15 PM	1	0	0	0
2:30 PM	0	0	0	0
2:45 PM	3	0	0	0
3:00 PM	0	1	0	0
3:15 PM	0	0	0	0
3:30 PM	1	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	1	2	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	2	0	0
5:45 PM	1	1	0	0
<b>TOTAL</b>	<b>7</b>	<b>6</b>	<b>0</b>	<b>0</b>

**Project #:** 19-1539-011

**TMC SUMMARY OF Whitewood Rd. & Clinton Keith Rd.**



## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **Whitewood Rd.**      DATE: **10/15/19**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd.**      DAY: **TUESDAY**      PROJECT# **19-1539-011**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	1.5	0.5	2	1	1	1	1	0	
6:00 AM	14	9	6	3	27	56	34	274	5	11	139	5	583
6:15 AM	24	7	11	9	35	54	41	363	11	28	128	5	716
6:30 AM	45	19	18	16	70	117	85	282	25	101	122	15	915
6:45 AM	64	42	18	52	155	118	85	276	59	156	176	31	1232
7:00 AM	57	68	45	67	151	134	99	269	72	150	101	54	1267
7:15 AM	34	63	18	32	131	106	93	399	37	55	149	25	1142
7:30 AM	34	65	29	51	150	116	91	128	28	58	262	26	1038
7:45 AM	29	45	17	34	141	98	84	117	32	67	228	23	915
8:00 AM	24	50	17	12	145	59	32	158	22	34	269	15	837
8:15 AM	28	54	15	19	142	42	57	101	33	38	261	4	794
8:30 AM	15	42	15	10	148	88	72	129	38	79	189	14	839
8:45 AM	24	27	25	22	89	89	83	99	24	52	156	23	713
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	392	491	234	327	1384	1077	856	2595	386	829	2180	240	10991
Approach %	35.09	43.96	20.95	11.73	49.64	38.63	22.31	67.63	10.06	25.52	67.10	7.39	
App/Depart	1117	/	1587	2788	/	2599	3837	/	3156	3249	/	3649	

AM Peak Hr Begins at: 645 AM

**PEAK**

Volumes	189	238	110	202	587	474	368	1072	196	419	688	136	4679
Approach %	35.20	44.32	20.48	15.99	46.48	37.53	22.49	65.53	11.98	33.71	55.35	10.94	

**PEAK HR.**

FACTOR:	0.790	0.897	0.773	0.856	0.923
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CONTROL: **Signal**  
 COMMENT 1:  
 GPS: **33.597912, -117.162881**

# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: Whitewood Rd.      DATE: 10/15/19      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd.      DAY: TUESDAY      PROJECT#: 19-1539-011

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	1.5	0.5	2	1	1	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM	36	80	34	28	78	49	89	99	64	76	103	25	761
2:15 PM	35	72	36	38	86	50	124	128	68	66	128	27	858
2:30 PM	35	93	93	63	103	69	134	91	83	81	122	23	990
2:45 PM	54	83	63	23	88	78	130	187	37	54	217	38	1052
3:00 PM	41	152	73	43	92	84	152	136	56	97	228	28	1182
3:15 PM	42	139	79	39	128	76	158	169	31	106	169	24	1160
3:30 PM	32	108	64	33	141	90	135	249	33	57	181	25	1148
3:45 PM	28	146	60	19	85	78	122	233	61	52	208	29	1121
4:00 PM	24	163	70	66	145	94	190	189	73	78	122	34	1248
4:15 PM	28	143	43	49	84	35	167	234	45	77	196	22	1123
4:30 PM	24	170	61	42	209	80	114	289	64	88	187	16	1344
4:45 PM	29	176	57	63	127	67	133	277	66	67	169	27	1258
5:00 PM	30	285	68	67	122	85	184	182	60	88	128	20	1319
5:15 PM	32	220	55	33	134	66	171	144	72	70	133	19	1149
5:30 PM	36	234	58	51	131	83	133	239	96	75	128	34	1298
5:45 PM	33	221	52	14	151	93	127	298	82	66	169	32	1338
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	539	2485	966	671	1904	1177	2263	3144	991	1198	2588	423	18349
Approach %	13.51	62.28	24.21	17.88	50.75	31.37	35.37	49.14	15.49	28.46	61.49	10.05	
App/Depart	3990	/	5171	3752	/	4093	6398	/	4781	4209	/	4304	

PM Peak Hr Begins at: 500 PM

**PEAK**

Volumes	131	960	233	165	538	327	615	863	310	299	558	105	5104
Approach %	9.89	72.51	17.60	16.02	52.23	31.75	34.40	48.27	17.34	31.08	58.00	10.91	

**PEAK HR.**

FACTOR:	0.864	0.940	0.882	0.901	0.954
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CONTROL: Signal  
 COMMENT 1: 0  
 GPS: 33.597912, -117.162881



### Pedestrian & Bicycle Study

**N-S STREET:** Whitewood Rd.  
**E-W STREET:** Clinton Keith Rd.

**Date:** 10/15/19  
**Day:** TUESDAY

**City:** Murrieta  
**Project #:** 19-1539-01

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	1	1	0	1
6:30 AM	0	5	0	0
6:45 AM	16	66	18	4
7:00 AM	45	55	37	45
7:15 AM	3	8	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	1	0	1	0
8:15 AM	0	0	0	1
8:30 AM	2	1	1	1
8:45 AM	1	0	0	0
<b>TOTAL</b>	<b>69</b>	<b>136</b>	<b>57</b>	<b>52</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	2	0	0
6:45 AM	2	6	0	3
7:00 AM	0	1	1	3
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	0	1	0
8:00 AM	0	0	0	0
8:15 AM	0	1	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	1	0
<b>TOTAL</b>	<b>3</b>	<b>10</b>	<b>3</b>	<b>6</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	1	0
11:30 AM	0	1	1	2
11:45 AM	0	0	0	0
12:00 PM	2	1	0	0
12:15 PM	0	2	0	0
12:30 PM	0	0	0	2
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>4</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	1
11:15 AM	0	0	4	0
11:30 AM	0	0	0	1
11:45 AM	0	0	1	0
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>2</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	40	0	11
2:15 PM	9	45	0	9
2:30 PM	39	42	0	5
2:45 PM	0	7	0	1
3:00 PM	0	7	0	8
3:15 PM	3	3	0	0
3:30 PM	2	1	0	4
3:45 PM	0	0	0	0
4:00 PM	0	0	0	5
4:15 PM	0	3	1	1
4:30 PM	0	0	0	2
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	5
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>53</b>	<b>148</b>	<b>1</b>	<b>51</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
2:00 PM	0	0	0	0
2:15 PM	1	9	0	4
2:30 PM	2	3	0	4
2:45 PM	0	0	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	3	1
4:30 PM	4	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>7</b>	<b>14</b>	<b>3</b>	<b>11</b>

**ADT1 Whitewood south of Baxter.**

Suhsduhg#e|#D1pWG#OOF##who1#:47#586#::;

AM Period	NB	SB	PM Period	NB	SB	
0:00	8	6	12:00	111	76	
0:15	12	5	12:15	116	108	
0:30	6	7	12:30	116	138	
0:45	7 33	7 25	58 12:45	111 454	130 452	906
1:00	6	7	13:00	122	109	
1:15	5	10	13:15	98	88	
1:30	6	5	13:30	139	93	
1:45	5 22	5 27	49 13:45	103 462	105 395	857
2:00	8	3	14:00	112	101	
2:15	2	5	14:15	119	122	
2:30	5	4	14:30	140	150	
2:45	6 21	2 14	35 14:45	166 537	127 500	1037
3:00	2	5	15:00	173	111	
3:15	1	6	15:15	183	125	
3:30	4	4	15:30	186	130	
3:45	4 11	12 27	38 15:45	184 726	127 493	1219
4:00	7	16	16:00	156	134	
4:15	3	38	16:15	160	136	
4:30	2	44	16:30	165	125	
4:45	5 17	55 153	170 16:45	177 658	156 551	1209
5:00	12	43	17:00	191	126	
5:15	8	49	17:15	219	129	
5:30	19	67	17:30	231	125	
5:45	24 63	61 220	283 17:45	130 771	130 510	1281
6:00	26	58	18:00	140	104	
6:15	39	95	18:15	177	107	
6:30	48	110	18:30	171	106	
6:45	76 189	168 431	620 18:45	167 655	95 412	1067
7:00	82	215	19:00	141	78	
7:15	111	175	19:15	127	69	
7:30	116	222	19:30	101	96	
7:45	114 423	198 810	1233 19:45	94 463	53 296	759
8:00	118	181	20:00	99	36	
8:15	82	159	20:15	82	43	
8:30	87	168	20:30	73	42	
8:45	103 390	127 635	1025 20:45	57 311	39 160	471
9:00	101	129	21:00	69	35	
9:15	94	116	21:15	62	23	
9:30	69	115	21:30	48	23	
9:45	92 356	116 476	832 21:45	37 216	23 104	320
10:00	101	104	22:00	35	11	
10:15	62	111	22:15	33	13	
10:30	103	105	22:30	23	11	
10:45	89 355	112 432	787 22:45	19 110	11 46	156
11:00	99	107	23:00	20	15	
11:15	98	114	23:15	12	11	
11:30	99	113	23:30	13	5	
11:45	108 404	81 415	819 23:45	15 60	9 40	100
<b>Total Vol.</b>	2284	3665	<b>5949</b>	5423	3959	<b>9382</b>

**Daily Totals**

NB	SB	Combined
7707	7624	<b>15331</b>

**AM**

**PM**

Split %	38.4%	61.6%	<b>38.8%</b>	57.8%	42.2%	<b>61.2%</b>
<b>Peak Hour</b>	7:15	7:00	<b>7:15</b>	16:45	16:00	<b>16:45</b>
<b>Volume</b>	459	810	<b>1235</b>	818	551	<b>1354</b>
<b>P.H.F.</b>	0.97	0.91	<b>0.91</b>	0.92	0.88	<b>0.95</b>

**ADT2 Baxter west of Whitewood.**

Suhsduhg#e|#D1pWG#OOF##who1#:47#586#::;

AM Period	EB		WB		PM Period	EB		WB		
0:00	3		3		12:00	25		21		
0:15	3		7		12:15	31		16		
0:30	6		1		12:30	27		39		
0:45	4	16	2	13	12:45	31	114	23	99	213
1:00	5		1		13:00	26		24		
1:15	3		2		13:15	14		30		
1:30	2		2		13:30	30		34		
1:45	5	15	1	6	13:45	25	95	23	111	206
2:00	1		1		14:00	24		20		
2:15	3		0		14:15	30		28		
2:30	2		1		14:30	43		24		
2:45	1	7	0	2	14:45	40	137	25	97	234
3:00	0		1		15:00	31		31		
3:15	3		0		15:15	26		38		
3:30	1		0		15:30	32		32		
3:45	3	7	3	4	15:45	28	117	29	130	247
4:00	2		1		16:00	43		25		
4:15	2		0		16:15	35		24		
4:30	4		0		16:30	27		18		
4:45	5	13	6	7	16:45	41	146	24	91	237
5:00	3		4		17:00	36		14		
5:15	4		5		17:15	27		34		
5:30	8		9		17:30	23		29		
5:45	3	18	11	29	17:45	21	107	17	94	201
6:00	3		12		18:00	22		20		
6:15	8		15		18:15	22		29		
6:30	8		28		18:30	23		15		
6:45	16	35	35	90	18:45	21	88	22	86	174
7:00	30		14		19:00	22		15		
7:15	24		22		19:15	14		11		
7:30	28		49		19:30	36		13		
7:45	33	115	68	153	19:45	17	89	14	53	142
8:00	38		50		20:00	10		13		
8:15	20		25		20:15	8		6		
8:30	30		35		20:30	11		6		
8:45	36	124	39	149	20:45	4	33	6	31	64
9:00	25		33		21:00	6		5		
9:15	32		32		21:15	5		6		
9:30	28		28		21:30	6		10		
9:45	29	114	37	130	21:45	4	21	4	25	46
10:00	28		37		22:00	8		5		
10:15	26		26		22:15	4		3		
10:30	22		32		22:30	4		1		
10:45	33	109	32	127	22:45	3	19	3	12	31
11:00	32		25		23:00	8		3		
11:15	38		23		23:15	5		4		
11:30	31		25		23:30	4		1		
11:45	32	133	25	98	23:45	3	20	1	9	29

**Total Vol.** 706 808 **1514** 986 838 **1824**

**Daily Totals**

EB WB **Combined**

1692 1646 **3338**

**AM**

**PM**

**Split %** 46.6% 53.4% **45.4%** 54.1% 45.9% **54.6%**

**Peak Hour** 10:45 7:30 **7:15** 16:00 15:00 **14:30**

**Volume** 134 192 **312** 146 130 **258**

**P.H.F.** 0.88 0.71 **0.77** 0.85 0.86 **0.96**



City of Wildomar  
 N/S: Inland Valley Drive  
 E/W: Clinton Keith Road  
 Weather: Clear

File Name : 01\_WDM\_Inland\_CK AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 1

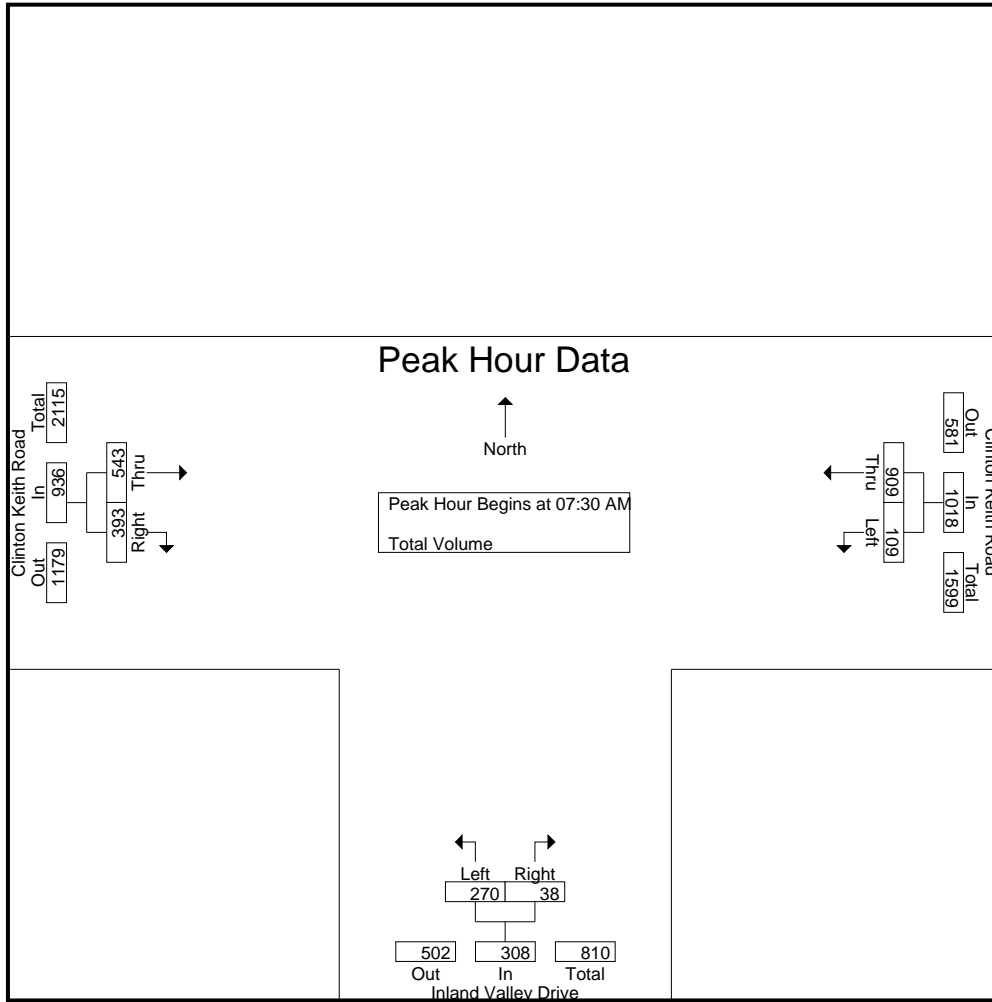
Groups Printed- Total Volume

Start Time	Clinton Keith Road Westbound			Inland Valley Drive Northbound				Clinton Keith Road Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total			
07:00 AM	21	179	200	54	4	1	58	164	67	21	231	22	489	511
07:15 AM	10	197	207	54	7	2	61	99	60	17	159	19	427	446
07:30 AM	12	250	262	61	10	3	71	163	66	7	229	10	562	572
07:45 AM	27	217	244	69	10	4	79	127	92	33	219	37	542	579
Total	70	843	913	238	31	10	269	553	285	78	838	88	2020	2108
08:00 AM	30	209	239	89	10	1	99	136	113	47	249	48	587	635
08:15 AM	40	233	273	51	8	1	59	117	122	42	239	43	571	614
08:30 AM	35	185	220	60	12	3	72	103	86	29	189	32	481	513
08:45 AM	28	160	188	68	19	6	87	125	81	27	206	33	481	514
Total	133	787	920	268	49	11	317	481	402	145	883	156	2120	2276
Grand Total	203	1630	1833	506	80	21	586	1034	687	223	1721	244	4140	4384
Apprch %	11.1	88.9		86.3	13.7			60.1	39.9					
Total %	4.9	39.4	44.3	12.2	1.9		14.2	25	16.6		41.6	5.6	94.4	

Start Time	Clinton Keith Road Westbound			Inland Valley Drive Northbound			Clinton Keith Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:30 AM	12	<b>250</b>	262	61	<b>10</b>	71	<b>163</b>	66	229	562
07:45 AM	27	217	244	69	10	79	127	92	219	542
08:00 AM	30	209	239	<b>89</b>	10	<b>99</b>	136	113	<b>249</b>	<b>587</b>
08:15 AM	<b>40</b>	233	<b>273</b>	51	8	59	117	<b>122</b>	239	571
Total Volume	109	909	1018	270	38	308	543	393	936	2262
% App. Total	10.7	89.3		87.7	12.3		58	42		
PHF	.681	.909	.932	.758	.950	.778	.833	.805	.940	.963

City of Wildomar  
 N/S: Inland Valley Drive  
 E/W: Clinton Keith Road  
 Weather: Clear

File Name : 01\_WDM\_Inland\_CK AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:30 AM			08:00 AM			07:30 AM		
+0 mins.	12	<b>250</b>	262	<b>89</b>	10	<b>99</b>	<b>163</b>	66	229
+15 mins.	27	217	244	51	8	59	127	92	219
+30 mins.	30	209	239	60	12	72	136	113	<b>249</b>
+45 mins.	<b>40</b>	233	<b>273</b>	68	<b>19</b>	87	117	<b>122</b>	239
Total Volume	109	909	1018	268	49	317	543	393	936
% App. Total	10.7	89.3		84.5	15.5		58	42	
PHF	.681	.909	.932	.753	.645	.801	.833	.805	.940

City of Wildomar  
 N/S: Inland Valley Drive  
 E/W: Clinton Keith Road  
 Weather: Clear

File Name : 01\_WDM\_Inland\_CK PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 1

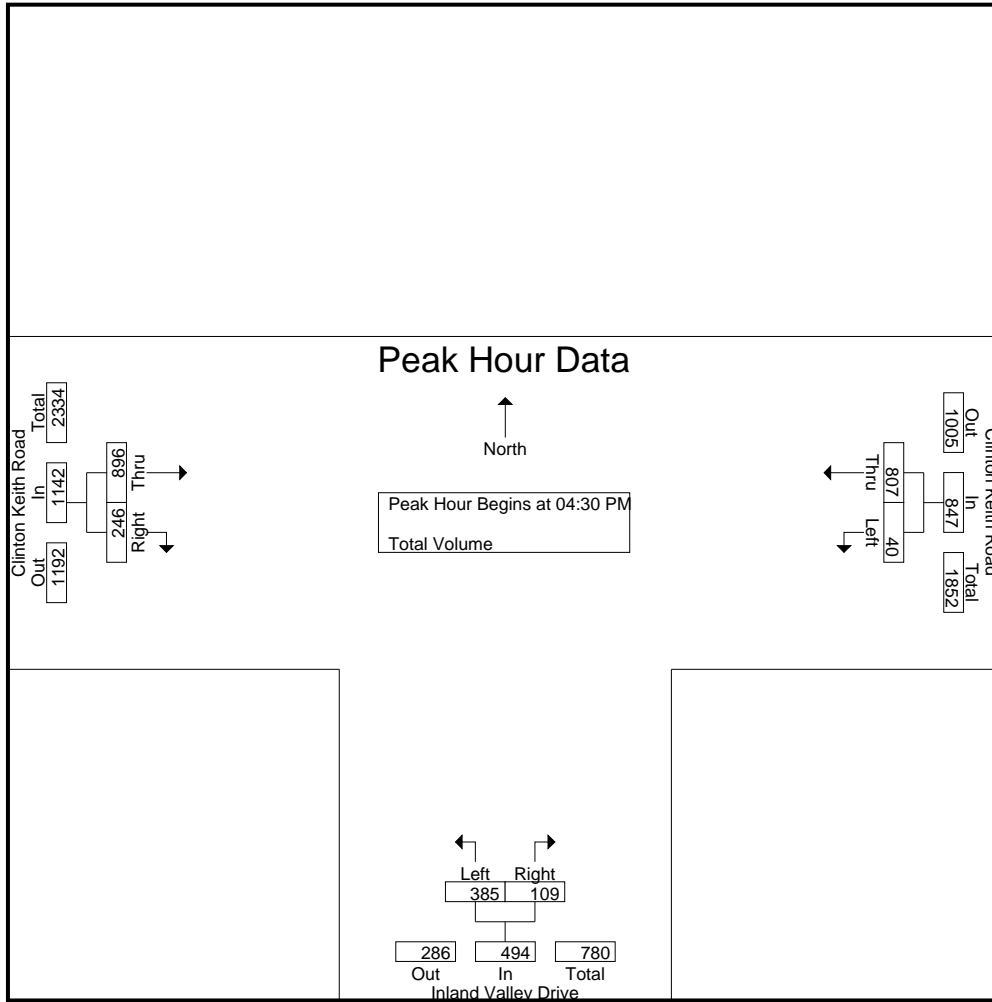
Groups Printed- Total Volume

Start Time	Clinton Keith Road Westbound			Inland Valley Drive Northbound				Clinton Keith Road Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total			
04:00 PM	16	165	181	102	27	7	129	210	69	17	279	24	589	613
04:15 PM	15	181	196	102	24	6	126	206	82	24	288	30	610	640
04:30 PM	11	172	183	95	25	5	120	199	57	27	256	32	559	591
04:45 PM	11	209	220	80	22	6	102	237	57	22	294	28	616	644
Total	53	727	780	379	98	24	477	852	265	90	1117	114	2374	2488
05:00 PM	7	211	218	111	36	4	147	222	66	31	288	35	653	688
05:15 PM	11	215	226	99	26	3	125	238	66	24	304	27	655	682
05:30 PM	9	195	204	66	17	4	83	207	48	16	255	20	542	562
05:45 PM	5	183	188	71	7	2	78	226	54	15	280	17	546	563
Total	32	804	836	347	86	13	433	893	234	86	1127	99	2396	2495
Grand Total	85	1531	1616	726	184	37	910	1745	499	176	2244	213	4770	4983
Apprch %	5.3	94.7		79.8	20.2			77.8	22.2					
Total %	1.8	32.1	33.9	15.2	3.9		19.1	36.6	10.5		47	4.3	95.7	

Start Time	Clinton Keith Road Westbound			Inland Valley Drive Northbound			Clinton Keith Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	11	172	183	95	25	120	199	57	256	559
04:45 PM	11	209	220	80	22	102	237	57	294	616
05:00 PM	7	211	218	111	36	147	222	66	288	653
05:15 PM	11	215	226	99	26	125	238	66	304	682
Total Volume	40	807	847	385	109	494	896	246	1142	2483
% App. Total	4.7	95.3		77.9	22.1		78.5	21.5		
PHF	.909	.938	.937	.867	.757	.840	.941	.932	.939	.948

City of Wildomar  
 N/S: Inland Valley Drive  
 E/W: Clinton Keith Road  
 Weather: Clear

File Name : 01\_WDM\_Inland\_CK PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			04:30 PM		
+0 mins.	11	209	220	102	24	126	199	57	256
+15 mins.	7	211	218	95	25	120	237	57	294
+30 mins.	11	<b>215</b>	<b>226</b>	80	22	102	222	<b>66</b>	288
+45 mins.	9	195	204	<b>111</b>	<b>36</b>	<b>147</b>	<b>238</b>	66	<b>304</b>
Total Volume	38	830	868	388	107	495	896	246	1142
% App. Total	4.4	95.6		78.4	21.6		78.5	21.5	
PHF	.864	.965	.960	.874	.743	.842	.941	.932	.939

Location: Wildomar  
 N/S: Inland Valley Drive  
 E/W: Clinton Keith Road



Date: 11/10/2021  
 Day: Wednesday

PEDESTRIANS

	North Leg Dead End	East Leg Clinton Keith Road	South Leg Inland Valley Drive	West Leg Clinton Keith Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Clinton Keith Road	South Leg Inland Valley Drive	West Leg Clinton Keith Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

Location: Wildomar  
 N/S: Inland Valley Drive  
 E/W: Clinton Keith Road



Date: 11/10/2021  
 Day: Wednesday

BICYCLES

	Southbound Dead End			Westbound Clinton Keith Road			Northbound Inland Valley Drive			Eastbound Clinton Keith Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
TOTAL VOLUMES:	0	0	0	0	3	0	0	0	0	0	0	0	3

	Southbound Dead End			Westbound Clinton Keith Road			Northbound Inland Valley Drive			Eastbound Clinton Keith Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

City of Wildomar  
 N/S: Antelope Road  
 E/W: Scott Road  
 Weather: Clear

File Name : 02\_MUR\_Ant\_Scott AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 1

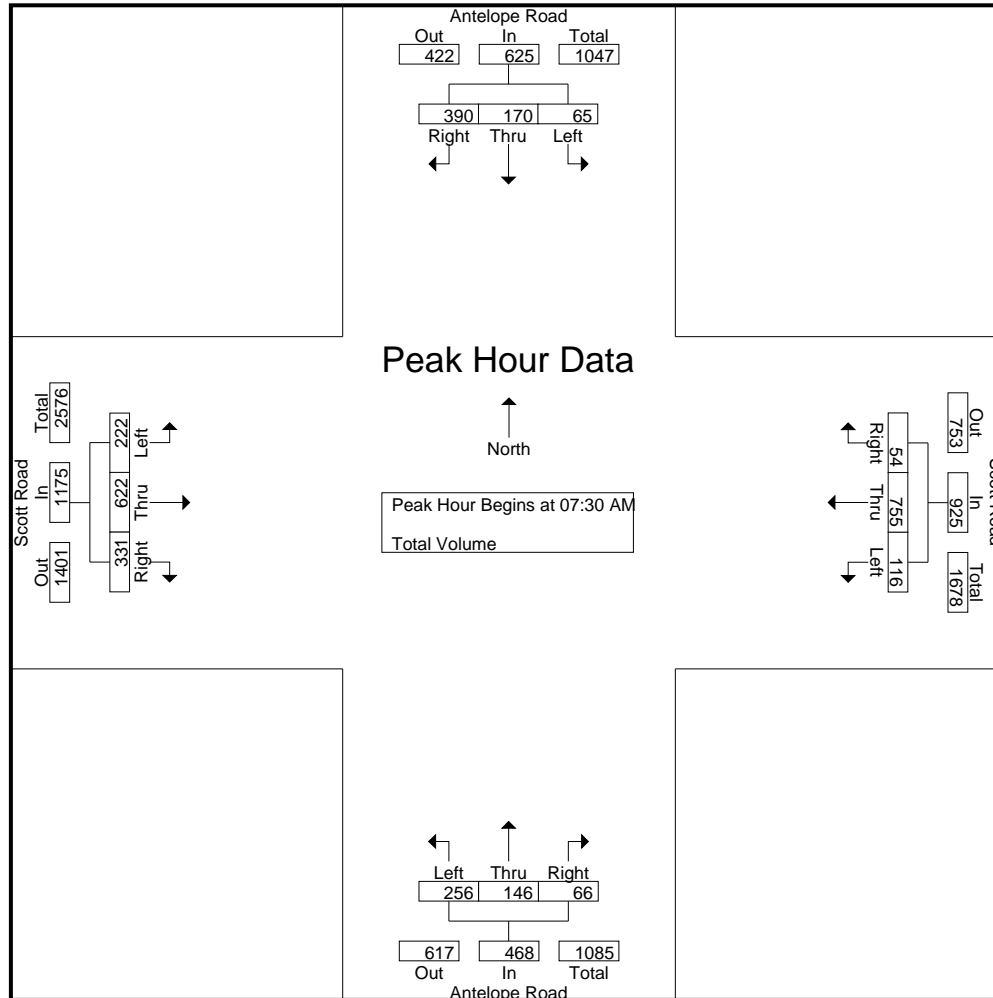
Groups Printed- Total Volume

Start Time	Antelope Road Southbound					Scott Road Westbound					Antelope Road Northbound					Scott Road Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
07:00 AM	4	13	81	47	98	13	189	4	3	206	68	24	19	11	111	36	142	51	24	229	85	644	729
07:15 AM	4	23	115	37	142	12	220	10	2	242	73	21	16	8	110	48	159	71	15	278	62	772	834
07:30 AM	12	36	111	14	159	32	145	9	2	186	82	25	19	9	126	63	165	89	36	317	61	788	849
07:45 AM	17	40	83	16	140	22	250	24	1	296	67	36	9	2	112	75	172	87	36	334	55	882	937
Total	37	112	390	114	539	79	804	47	8	930	290	106	63	30	459	222	638	298	111	1158	263	3086	3349
08:00 AM	11	32	97	28	140	46	150	12	2	208	53	49	17	8	119	37	113	73	30	223	68	690	758
08:15 AM	25	62	99	29	186	16	210	9	0	235	54	36	21	16	111	47	172	82	32	301	77	833	910
08:30 AM	28	30	82	27	140	25	126	8	1	159	70	20	15	10	105	34	98	99	25	231	63	635	698
08:45 AM	8	39	56	26	103	23	118	45	5	186	69	18	13	7	100	47	132	95	30	274	68	663	731
Total	72	163	334	110	569	110	604	74	8	788	246	123	66	41	435	165	515	349	117	1029	276	2821	3097
Grand Total	109	275	724	224	1108	189	1408	121	16	1718	536	229	129	71	894	387	1153	647	228	2187	539	5907	6446
Apprch %	9.8	24.8	65.3			11	82	7			60	25.6	14.4			17.7	52.7	29.6					
Total %	1.8	4.7	12.3		18.8	3.2	23.8	2		29.1	9.1	3.9	2.2		15.1	6.6	19.5	11		37	8.4	91.6	

Start Time	Antelope Road Southbound				Scott Road Westbound				Antelope Road Northbound				Scott Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	12	36	111	159	32	145	9	186	82	25	19	126	63	165	89	317	788
07:45 AM	17	40	83	140	22	250	24	296	67	36	9	112	75	172	87	334	882
08:00 AM	11	32	97	140	46	150	12	208	53	49	17	119	37	113	73	223	690
08:15 AM	25	62	99	186	16	210	9	235	54	36	21	111	47	172	82	301	833
Total Volume	65	170	390	625	116	755	54	925	256	146	66	468	222	622	331	1175	3193
% App. Total	10.4	27.2	62.4		12.5	81.6	5.8		54.7	31.2	14.1		18.9	52.9	28.2		
PHF	.650	.685	.878	.840	.630	.755	.563	.781	.780	.745	.786	.929	.740	.904	.930	.879	.905

City of Wildomar  
 N/S: Antelope Road  
 E/W: Scott Road  
 Weather: Clear

File Name : 02\_MUR\_Ant\_Scott AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 2





City of Wildomar  
 N/S: Antelope Road  
 E/W: Scott Road  
 Weather: Clear

File Name : 02\_MUR\_Ant\_Scott AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 3

Start Time	Antelope Road Southbound				Scott Road Westbound				Antelope Road Northbound				Scott Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:15 AM				07:30 AM				07:30 AM				
+0 mins.	12	36	<b>111</b>	159	12	220	10	242	<b>82</b>	25	19	<b>126</b>	63	165	<b>89</b>	317	
+15 mins.	17	40	83	140	32	145	9	186	67	36	9	112	<b>75</b>	<b>172</b>	87	<b>334</b>	
+30 mins.	11	32	97	140	22	<b>250</b>	<b>24</b>	<b>296</b>	53	<b>49</b>	17	119	37	113	73	223	
+45 mins.	<b>25</b>	<b>62</b>	99	<b>186</b>	<b>46</b>	150	12	208	54	36	<b>21</b>	111	47	172	82	301	
Total Volume	65	170	390	625	112	765	55	932	256	146	66	468	222	622	331	1175	
% App. Total	10.4	27.2	62.4		12	82.1	5.9		54.7	31.2	14.1		18.9	52.9	28.2		
PHF	.650	.685	.878	.840	.609	.765	.573	.787	.780	.745	.786	.929	.740	.904	.930	.879	

City of Wildomar  
 N/S: Antelope Road  
 E/W: Scott Road  
 Weather: Clear

File Name : 02\_MUR\_Ant\_Scott PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 1

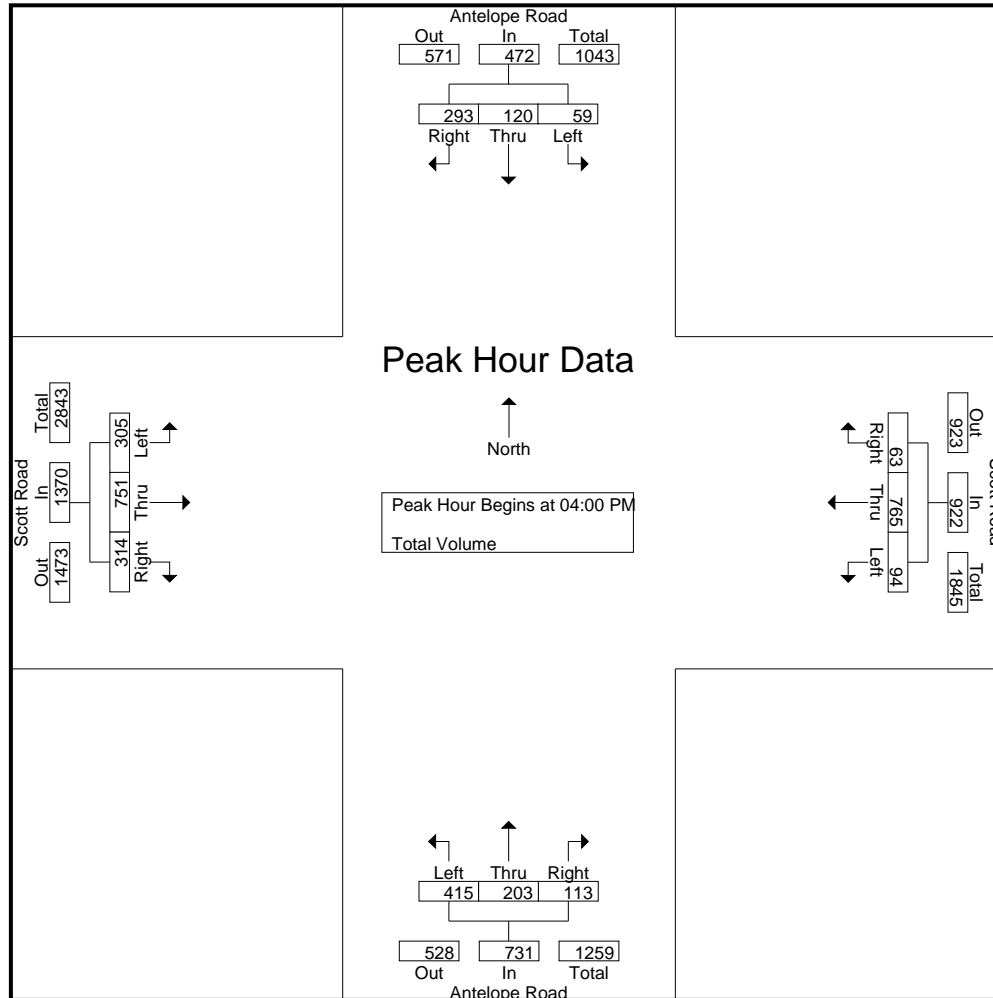
Groups Printed- Total Volume

Start Time	Antelope Road Southbound					Scott Road Westbound					Antelope Road Northbound					Scott Road Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	14	27	82	14	123	24	206	12	6	242	93	37	30	16	160	72	196	88	32	356	68	881	949
04:15 PM	21	32	74	16	127	27	175	10	2	212	106	61	26	14	193	77	169	81	30	327	62	859	921
04:30 PM	13	35	71	10	119	18	208	6	1	232	90	55	36	11	181	69	181	78	28	328	50	860	910
04:45 PM	11	26	66	18	103	25	176	35	1	236	126	50	21	6	197	87	205	67	25	359	50	895	945
Total	59	120	293	58	472	94	765	63	10	922	415	203	113	47	731	305	751	314	115	1370	230	3495	3725
05:00 PM	10	20	57	12	87	16	156	7	1	179	83	39	18	9	140	64	195	69	23	328	45	734	779
05:15 PM	10	30	53	26	93	31	173	10	2	214	88	48	26	9	162	84	167	80	40	331	77	800	877
05:30 PM	10	25	62	22	97	22	181	7	0	210	119	43	21	13	183	72	182	77	45	331	80	821	901
05:45 PM	9	24	60	29	93	19	174	9	1	202	70	44	27	18	141	74	197	79	32	350	80	786	866
Total	39	99	232	89	370	88	684	33	4	805	360	174	92	49	626	294	741	305	140	1340	282	3141	3423
Grand Total	98	219	525	147	842	182	1449	96	14	1727	775	377	205	96	1357	599	1492	619	255	2710	512	6636	7148
Apprch %	11.6	26	62.4			10.5	83.9	5.6			57.1	27.8	15.1			22.1	55.1	22.8					
Total %	1.5	3.3	7.9		12.7	2.7	21.8	1.4		26	11.7	5.7	3.1		20.4	9	22.5	9.3		40.8	7.2	92.8	

Start Time	Antelope Road Southbound				Scott Road Westbound				Antelope Road Northbound				Scott Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	14	27	<b>82</b>	123	24	206	12	<b>242</b>	93	37	30	160	72	196	<b>88</b>	356	881
04:15 PM	<b>21</b>	32	74	<b>127</b>	<b>27</b>	175	10	212	106	<b>61</b>	26	193	77	169	81	327	859
04:30 PM	13	<b>35</b>	71	119	18	<b>208</b>	6	232	90	55	<b>36</b>	181	69	181	78	328	860
04:45 PM	11	26	66	103	25	176	<b>35</b>	236	<b>126</b>	50	21	<b>197</b>	<b>87</b>	<b>205</b>	67	<b>359</b>	<b>895</b>
Total Volume	59	120	293	472	94	765	63	922	415	203	113	731	305	751	314	1370	3495
% App. Total	12.5	25.4	62.1		10.2	83	6.8		56.8	27.8	15.5		22.3	54.8	22.9		
PHF	.702	.857	.893	.929	.870	.919	.450	.952	.823	.832	.785	.928	.876	.916	.892	.954	.976

City of Wildomar  
 N/S: Antelope Road  
 E/W: Scott Road  
 Weather: Clear

File Name : 02\_MUR\_Ant\_Scott PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 2



City of Wildomar  
 N/S: Antelope Road  
 E/W: Scott Road  
 Weather: Clear

File Name : 02\_MUR\_Ant\_Scott PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 3

Start Time	Antelope Road Southbound				Scott Road Westbound				Antelope Road Northbound				Scott Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	14	27	<b>82</b>	123	24	206	12	<b>242</b>	93	37	30	160	72	196	<b>88</b>	356	
+15 mins.	<b>21</b>	32	74	<b>127</b>	<b>27</b>	175	10	212	106	<b>61</b>	26	193	77	169	81	327	
+30 mins.	13	<b>35</b>	71	119	18	<b>208</b>	6	232	90	55	<b>36</b>	181	69	181	78	328	
+45 mins.	11	26	66	103	25	176	<b>35</b>	236	<b>126</b>	50	21	<b>197</b>	<b>87</b>	<b>205</b>	67	<b>359</b>	
Total Volume	59	120	293	472	94	765	63	922	415	203	113	731	305	751	314	1370	
% App. Total	12.5	25.4	62.1		10.2	83	6.8		56.8	27.8	15.5		22.3	54.8	22.9		
PHF	.702	.857	.893	.929	.870	.919	.450	.952	.823	.832	.785	.928	.876	.916	.892	.954	

Location: Murrieta  
 N/S: Antelope Road  
 E/W: Scott Road



Date: 11/10/2021  
 Day: Wednesday

PEDESTRIANS

	North Leg Antelope Road	East Leg Scott Road	South Leg Antelope Road	West Leg Scott Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Antelope Road	East Leg Scott Road	South Leg Antelope Road	West Leg Scott Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	1	0	1
5:15 PM	0	1	1	0	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	2	0	3

Location: Murrieta  
 N/S: Antelope Road  
 E/W: Scott Road



Date: 11/10/2021  
 Day: Wednesday

BICYCLES

	Southbound Antelope Road			Westbound Scott Road			Northbound Antelope Road			Eastbound Scott Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Antelope Road			Westbound Scott Road			Northbound Antelope Road			Eastbound Scott Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	2	0	0	0	0	2

County of Riverside  
 N/S: Briggs Road/Max Gilliss Boulevard  
 E/W: Leon Road  
 Weather: Clear

File Name : 03\_CRV\_Briggs\_Leon AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 1

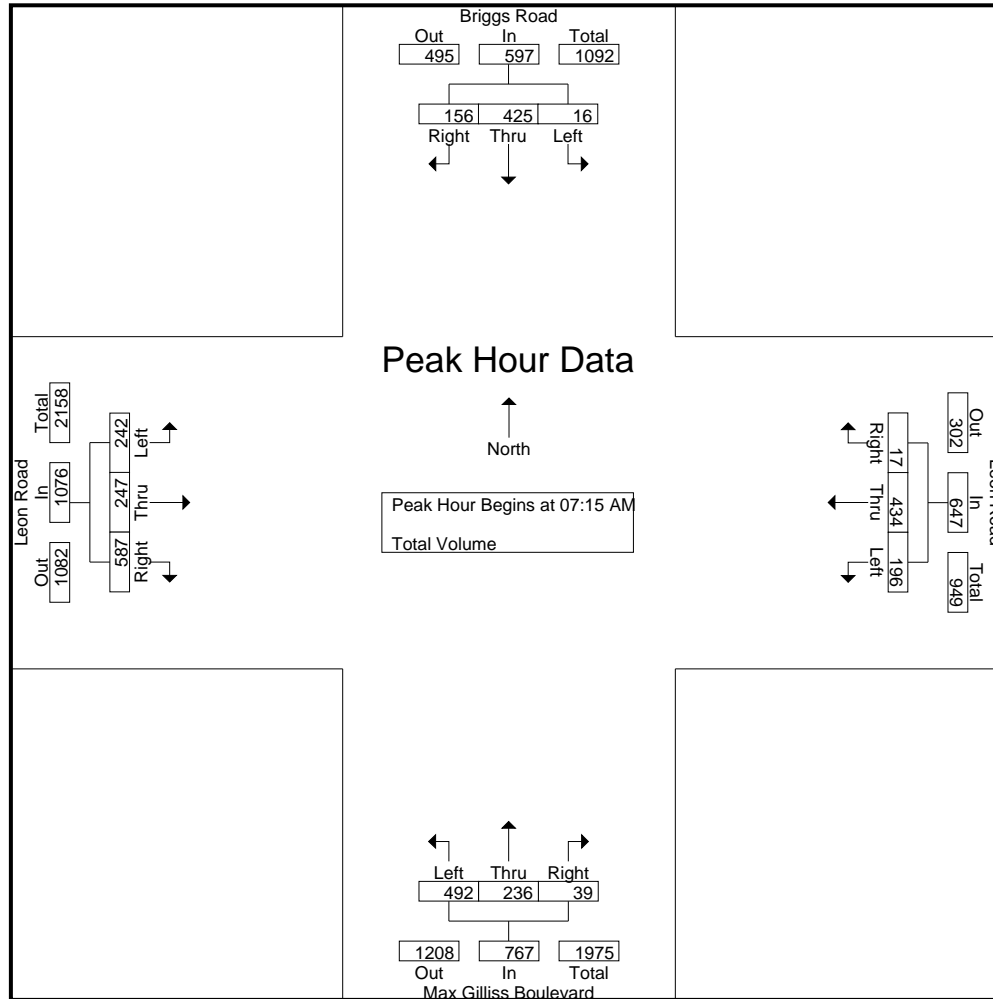
Groups Printed- Total Volume

Start Time	Briggs Road Southbound					Leon Road Westbound					Max Gilliss Boulevard Northbound					Leon Road Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
07:00 AM	0	50	42	15	92	43	153	2	1	198	203	14	3	3	220	26	61	124	34	211	53	721	774
07:15 AM	0	93	23	10	116	54	111	0	0	165	133	38	8	5	179	56	89	170	25	315	40	775	815
07:30 AM	1	97	37	14	135	55	101	1	1	157	115	50	7	2	172	77	77	181	50	335	67	799	866
07:45 AM	7	104	44	16	155	45	121	7	3	173	120	67	12	5	199	46	46	136	36	228	60	755	815
Total	8	344	146	55	498	197	486	10	5	693	571	169	30	15	770	205	273	611	145	1089	220	3050	3270
08:00 AM	8	131	52	7	191	42	101	9	3	152	124	81	12	2	217	63	35	100	18	198	30	758	788
08:15 AM	10	104	57	20	171	47	108	3	2	158	103	60	8	3	171	45	30	103	39	178	64	678	742
08:30 AM	3	143	69	14	215	28	80	3	3	111	119	77	9	3	205	55	51	96	27	202	47	733	780
08:45 AM	8	124	79	19	211	36	62	3	1	101	165	45	5	1	215	37	33	79	28	149	49	676	725
Total	29	502	257	60	788	153	351	18	9	522	511	263	34	9	808	200	149	378	112	727	190	2845	3035
Grand Total	37	846	403	115	1286	350	837	28	14	1215	1082	432	64	24	1578	405	422	989	257	1816	410	5895	6305
Apprch %	2.9	65.8	31.3			28.8	68.9	2.3			68.6	27.4	4.1			22.3	23.2	54.5					
Total %	0.6	14.4	6.8		21.8	5.9	14.2	0.5		20.6	18.4	7.3	1.1		26.8	6.9	7.2	16.8		30.8	6.5	93.5	

Start Time	Briggs Road Southbound				Leon Road Westbound				Max Gilliss Boulevard Northbound				Leon Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	93	23	116	54	111	0	165	133	38	8	179	56	89	170	315	775
07:30 AM	1	97	37	135	55	101	1	157	115	50	7	172	77	77	181	335	799
07:45 AM	7	104	44	155	45	121	7	173	120	67	12	199	46	46	136	228	755
08:00 AM	8	131	52	191	42	101	9	152	124	81	12	217	63	35	100	198	788
Total Volume	16	425	156	597	196	434	17	647	492	236	39	767	242	247	587	1076	3087
% App. Total	2.7	71.2	26.1		30.3	67.1	2.6		64.1	30.8	5.1		22.5	23	54.6		
PHF	.500	.811	.750	.781	.891	.897	.472	.935	.925	.728	.813	.884	.786	.694	.811	.803	.966

County of Riverside  
 N/S: Briggs Road/Max Gilliss Boulevard  
 E/W: Leon Road  
 Weather: Clear

File Name : 03\_CRV\_Briggs\_Leon AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 2





County of Riverside  
 N/S: Briggs Road/Max Gilliss Boulevard  
 E/W: Leon Road  
 Weather: Clear

File Name : 03\_CRV\_Briggs\_Leon AM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 3

Start Time	Briggs Road Southbound				Leon Road Westbound				Max Gilliss Boulevard Northbound				Leon Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	08:00 AM				07:00 AM				08:00 AM				07:00 AM				
+0 mins.	8	131	52	191	43	<b>153</b>	2	<b>198</b>	124	<b>81</b>	<b>12</b>	<b>217</b>	26	61	124	211	
+15 mins.	<b>10</b>	104	57	171	54	111	0	165	103	60	8	171	56	<b>89</b>	170	315	
+30 mins.	3	<b>143</b>	69	<b>215</b>	<b>55</b>	101	1	157	119	77	9	205	<b>77</b>	77	<b>181</b>	<b>335</b>	
+45 mins.	8	124	<b>79</b>	211	45	121	<b>7</b>	173	<b>165</b>	45	5	215	46	46	136	228	
Total Volume	29	502	257	788	197	486	10	693	511	263	34	808	205	273	611	1089	
% App. Total	3.7	63.7	32.6		28.4	70.1	1.4		63.2	32.5	4.2		18.8	25.1	56.1		
PHF	.725	.878	.813	.916	.895	.794	.357	.875	.774	.812	.708	.931	.666	.767	.844	.813	

County of Riverside  
 N/S: Briggs Road/Max Gilliss Boulevard  
 E/W: Leon Road  
 Weather: Clear

File Name : 03\_CRV\_Briggs\_Leon PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 1

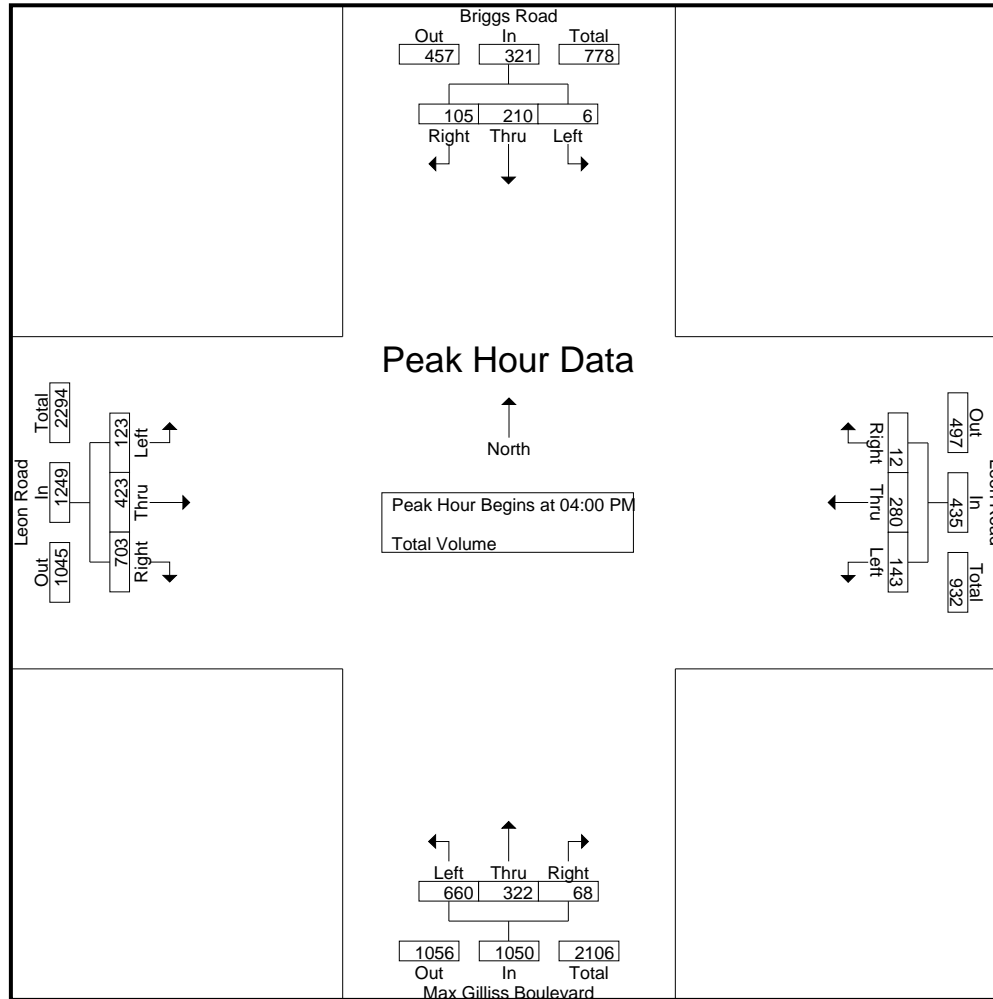
Groups Printed- Total Volume

Start Time	Briggs Road Southbound					Leon Road Westbound					Max Gilliss Boulevard Northbound					Leon Road Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	3	70	29	16	102	34	61	2	0	97	180	67	17	5	264	20	111	176	61	307	82	770	852
04:15 PM	1	38	31	10	70	36	77	5	2	118	150	88	22	7	260	32	116	181	36	329	55	777	832
04:30 PM	1	47	18	7	66	36	62	2	2	100	189	94	10	4	293	31	108	198	33	337	46	796	842
04:45 PM	1	55	27	12	83	37	80	3	2	120	141	73	19	8	233	40	88	148	38	276	60	712	772
Total	6	210	105	45	321	143	280	12	6	435	660	322	68	24	1050	123	423	703	168	1249	243	3055	3298
05:00 PM	1	50	24	5	75	32	66	5	0	103	143	77	19	4	239	31	115	187	37	333	46	750	796
05:15 PM	4	70	21	6	95	38	70	2	0	110	159	63	12	3	234	21	85	149	41	255	50	694	744
05:30 PM	1	50	18	7	69	33	68	0	0	101	194	56	22	8	272	25	77	180	22	282	37	724	761
05:45 PM	1	51	20	7	72	32	56	0	0	88	171	59	19	6	249	24	75	166	32	265	45	674	719
Total	7	221	83	25	311	135	260	7	0	402	667	255	72	21	994	101	352	682	132	1135	178	2842	3020
Grand Total	13	431	188	70	632	278	540	19	6	837	1327	577	140	45	2044	224	775	1385	300	2384	421	5897	6318
Apprch %	2.1	68.2	29.7			33.2	64.5	2.3			64.9	28.2	6.8			9.4	32.5	58.1					
Total %	0.2	7.3	3.2		10.7	4.7	9.2	0.3		14.2	22.5	9.8	2.4		34.7	3.8	13.1	23.5		40.4	6.7	93.3	

Start Time	Briggs Road Southbound				Leon Road Westbound				Max Gilliss Boulevard Northbound				Leon Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	<b>3</b>	<b>70</b>	29	<b>102</b>	34	61	2	97	180	67	17	264	20	111	176	307	770
04:15 PM	1	38	<b>31</b>	70	36	77	<b>5</b>	118	150	88	<b>22</b>	260	32	<b>116</b>	181	329	777
04:30 PM	1	47	18	66	36	62	2	100	<b>189</b>	<b>94</b>	10	<b>293</b>	31	108	<b>198</b>	<b>337</b>	<b>796</b>
04:45 PM	1	55	27	83	<b>37</b>	<b>80</b>	3	<b>120</b>	141	73	19	233	<b>40</b>	88	148	276	712
Total Volume	6	210	105	321	143	280	12	435	660	322	68	1050	123	423	703	1249	3055
% App. Total	1.9	65.4	32.7		32.9	64.4	2.8		62.9	30.7	6.5		9.8	33.9	56.3		
PHF	.500	.750	.847	.787	.966	.875	.600	.906	.873	.856	.773	.896	.769	.912	.888	.927	.959

County of Riverside  
 N/S: Briggs Road/Max Gilliss Boulevard  
 E/W: Leon Road  
 Weather: Clear

File Name : 03\_CRV\_Briggs\_Leon PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
 Page No : 2



County of Riverside  
 N/S: Briggs Road/Max Gilliss Boulevard  
 E/W: Leon Road  
 Weather: Clear

File Name : 03\_CRV\_Briggs\_Leon PM  
 Site Code : 05121682  
 Start Date : 11/10/2021  
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Start Time	Briggs Road Southbound				Leon Road Westbound				Max Gilliss Boulevard Northbound				Leon Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:15 PM				04:00 PM				04:15 PM				
+0 mins.	1	55	<b>27</b>	83	36	77	<b>5</b>	118	180	67	17	264	32	<b>116</b>	181	329	
+15 mins.	1	50	24	75	36	62	2	100	150	88	<b>22</b>	260	31	108	<b>198</b>	<b>337</b>	
+30 mins.	<b>4</b>	<b>70</b>	21	<b>95</b>	<b>37</b>	<b>80</b>	3	<b>120</b>	<b>189</b>	<b>94</b>	10	<b>293</b>	<b>40</b>	88	148	276	
+45 mins.	1	50	18	69	32	66	5	103	141	73	19	233	31	115	187	333	
Total Volume	7	225	90	322	141	285	15	441	660	322	68	1050	134	427	714	1275	
% App. Total	2.2	69.9	28		32	64.6	3.4		62.9	30.7	6.5		10.5	33.5	56		
PHF	.438	.804	.833	.847	.953	.891	.750	.919	.873	.856	.773	.896	.838	.920	.902	.946	

Location: County of Riverside  
 N/S: Briggs Rd/Max Gilliss Blvd  
 E/W: Leon Road



Date: 11/10/2021  
 Day: Wednesday

PEDESTRIANS

	North Leg Briggs Road	East Leg Leon Road	South Leg Max Gilliss Boulevard	West Leg Leon Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	1	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	1	2
8:00 AM	0	3	1	0	4
8:15 AM	0	0	0	1	1
8:30 AM	0	7	1	4	12
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	0	10	3	9	22

	North Leg Briggs Road	East Leg Leon Road	South Leg Max Gilliss Boulevard	West Leg Leon Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside  
 N/S: Briggs Rd/Max Gilliss Blvd  
 E/W: Leon Road



Date: 11/10/2021  
 Day: Wednesday

BICYCLES

	Southbound Briggs Road			Westbound Leon Road			Northbound Max Gilliss Boulevard			Eastbound Leon Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
TOTAL VOLUMES:	0	0	0	0	2	0	0	1	0	0	0	1	4

	Southbound Briggs Road			Westbound Leon Road			Northbound Max Gilliss Boulevard			Eastbound Leon Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	1	0	1	0	0	0	0	0	2









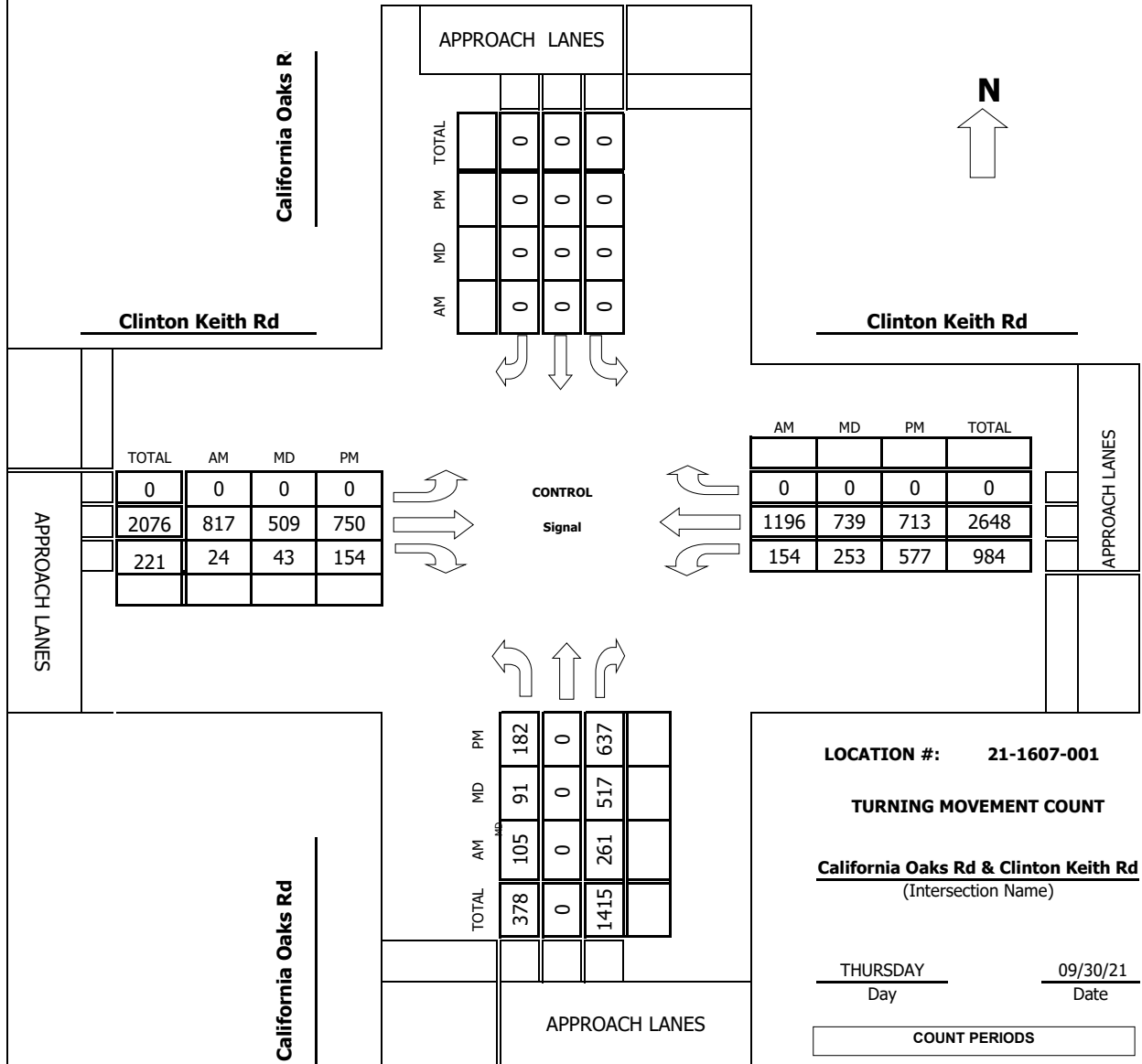






**Project #:** 21-1607-001

**TMC SUMMARY OF California Oaks Rd & Clinton Keith Rd**



	TOTAL	AM	MD	PM
	0	0	0	0
	2076	817	509	750
	221	24	43	154

	AM	MD	PM	TOTAL
	0	0	0	0
	1196	739	713	2648
	154	253	577	984

	TOTAL	AM	MD	PM
	378	105	91	182
	0	0	0	0
	1415	261	517	637

**LOCATION #:** 21-1607-001

**TURNING MOVEMENT COUNT**

**California Oaks Rd & Clinton Keith Rd**  
 (Intersection Name)

THURSDAY                      09/30/21  
 Day                                      Date

COUNT PERIODS	
<b>AM</b>	600AM - 900AM
<b>NOON</b>	1100AM - 200PM
<b>PM</b>	300PM - 600PM

AM PEAK HOUR                      745 AM  
 NOON PEAK HOUR                      100 PM  
 PM PEAK HOUR                      415 PM

## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: California Oaks Rd      DATE: 09/30/21      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd      DAY: THURSDAY      PROJECT#: 21-1607-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1.5	0	1.5	0	0	0	0	2	1	1	2	0	
6:00 AM	7	0	16	0	0	0	0	123	8	11	106	0	271
6:15 AM	8	0	14	0	0	0	0	144	9	10	133	0	318
6:30 AM	11	0	21	0	0	0	0	185	9	14	163	0	403
6:45 AM	10	0	42	0	0	0	0	242	6	19	285	0	604
7:00 AM	14	0	41	0	0	0	0	236	9	16	299	0	615
7:15 AM	18	0	54	0	0	0	0	258	3	20	285	0	638
7:30 AM	20	0	50	0	0	0	0	201	6	24	311	0	612
7:45 AM	24	0	75	0	0	0	0	201	9	25	325	0	659
8:00 AM	28	0	74	0	0	0	0	202	5	41	288	0	638
8:15 AM	24	0	54	0	0	0	0	203	8	43	314	0	646
8:30 AM	29	0	58	0	0	0	0	211	2	45	269	0	614
8:45 AM	33	0	65	0	0	0	0	189	5	50	252	0	594
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	226	0	564	0	0	0	0	2395	79	318	3030	0	6612
Approach %	28.61	0.00	71.39	####	####	####	0.00	96.81	3.19	9.50	90.50	0.00	
App/Depart	790	/	0	0	/	397	2474	/	2959	3348	/	3256	

AM Peak Hr Begins at: 745 AM

**PEAK**

Volumes	105	0	261	0	0	0	0	817	24	154	1196	0	2557
Approach %	28.69	0.00	71.31	####	####	####	0.00	97.15	2.85	11.41	88.59	0.00	

**PEAK HR.**

FACTOR:	0.897	0.000	0.987	0.945	0.970
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CONTROL: Signal  
 COMMENT 1:  
 GPS: 33.595584, -117.197392

# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: California Oaks Rd      DATE: 09/30/21      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd      DAY: THURSDAY      PROJECT#: 21-1607-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1.5	0	1.5	0	0	0	0	2	1	1	2	0	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	58	0	146	0	0	0	0	158	32	139	123	0	656
3:15 PM	54	0	154	0	0	0	0	156	30	166	166	0	726
3:30 PM	63	0	151	0	0	0	0	166	33	161	161	0	735
3:45 PM	66	0	133	0	0	0	0	161	29	154	185	0	728
4:00 PM	60	0	139	0	0	0	0	187	24	147	159	0	716
4:15 PM	54	0	163	0	0	0	0	201	28	141	163	0	750
4:30 PM	41	0	146	0	0	0	0	214	42	145	187	0	775
4:45 PM	42	0	174	0	0	0	0	169	40	152	174	0	751
5:00 PM	45	0	154	0	0	0	0	166	44	139	189	0	737
5:15 PM	50	0	161	0	0	0	0	161	43	133	182	0	730
5:30 PM	54	0	166	0	0	0	0	158	41	131	188	0	738
5:45 PM	41	0	163	0	0	0	0	154	28	125	169	0	680
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	628	0	1850	0	0	0	0	2051	414	1733	2046	0	8722
Approach %	25.34	0.00	74.66	####	####	####	0.00	83.20	16.80	45.86	54.14	0.00	
App/Depart	2478	/	0	0	/	2147	2465	/	3901	3779	/	2674	

PM Peak Hr Begins at: 4:15 PM

**PEAK**

Volumes	182	0	637	0	0	0	0	750	154	577	713	0	3013
Approach %	22.22	0.00	77.78	####	####	####	0.00	82.96	17.04	44.73	55.27	0.00	

**PEAK HR.**

FACTOR:	0.944	0.000	0.883	0.971	0.972
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CONTROL: Signal  
 COMMENT 1: 0  
 GPS: 33.595584, -117.197392



### Pedestrian & Bicycle Study

**N-S STREET:** California Oaks Rd  
**E-W STREET:** Clinton Keith Rd

**Date:** 09/30/21  
**Day:** THURSDAY

**City:** Murrieta  
**Project #:** 21-1607-00

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	1	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	0	1
12:15 PM	0	2	0	1
12:30 PM	0	0	0	0
12:45 PM	0	1	0	0
1:00 PM	0	0	0	0
1:15 PM	0	1	0	0
1:30 PM	0	3	0	0
1:45 PM	0	2	0	1
<b>TOTAL</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>3</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

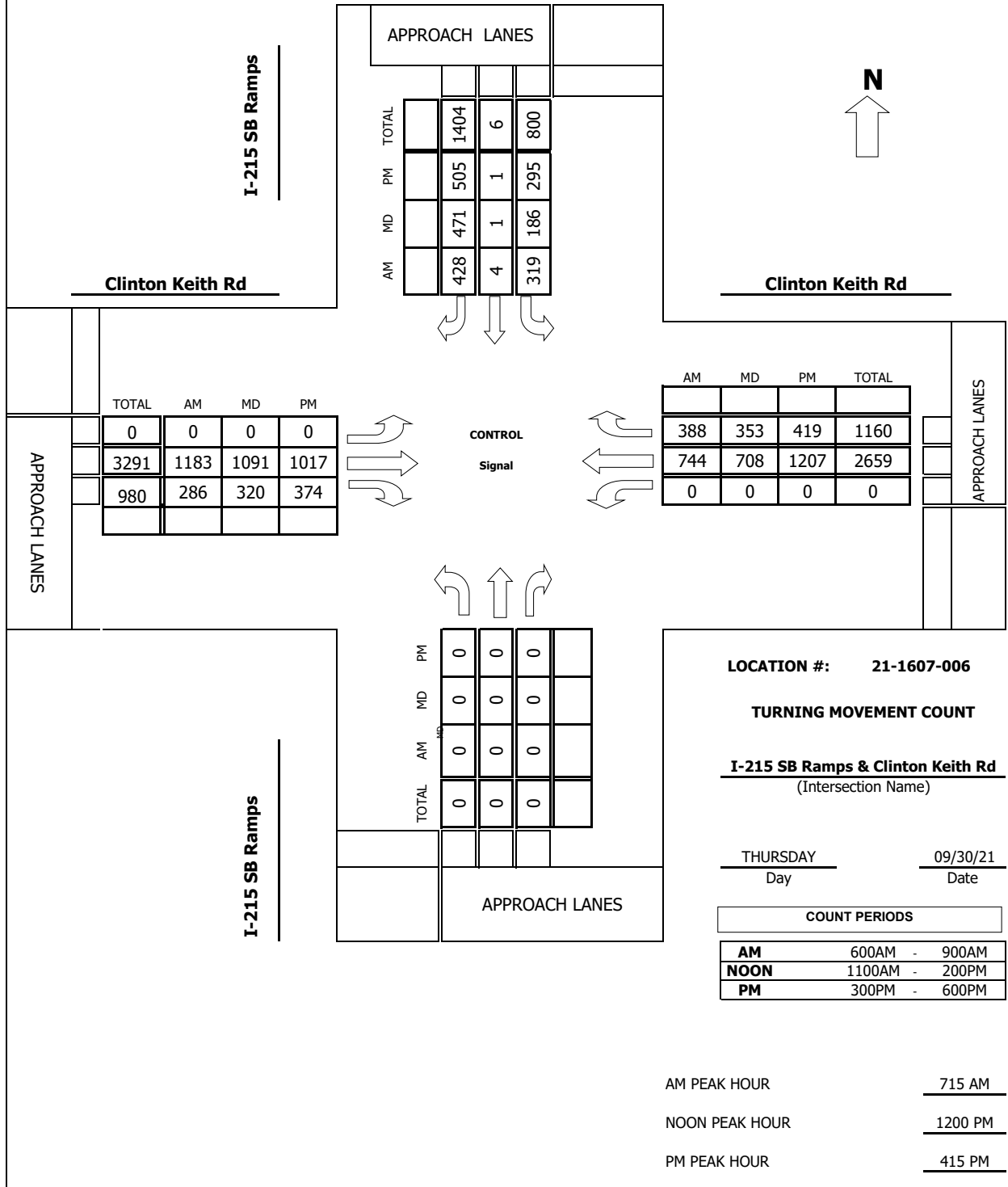
	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	1	0	0
3:45 PM	0	0	0	0
4:00 PM	0	1	0	0
4:15 PM	0	2	0	1
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	3	0	0
5:30 PM	0	2	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>1</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	1	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	1	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>



**Project #:** 21-1607-006

**TMC SUMMARY OF I-215 SB Ramps & Clinton Keith Rd**



## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **I-215 SB Ramps**      DATE: **09/30/21**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd**      DAY: **THURSDAY**      PROJECT# **21-1607-006**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0.5	0.5	2	0	3	1	0	3	1	
6:00 AM	0	0	0	58	1	65	0	163	55	0	52	78	472
6:15 AM	0	0	0	64	1	60	0	208	52	0	76	71	532
6:30 AM	0	0	0	78	0	66	0	217	91	0	89	148	689
6:45 AM	0	0	0	80	0	96	0	274	41	0	199	89	779
7:00 AM	0	0	0	54	0	86	0	263	45	0	207	99	754
7:15 AM	0	0	0	74	0	85	0	280	50	0	208	90	787
7:30 AM	0	0	0	78	1	87	0	332	54	0	186	98	836
7:45 AM	0	0	0	80	0	125	0	319	74	0	174	87	859
8:00 AM	0	0	0	87	3	131	0	252	108	0	176	113	870
8:15 AM	0	0	0	74	0	133	0	219	85	0	119	125	755
8:30 AM	0	0	0	76	0	125	0	269	89	0	115	113	787
8:45 AM	0	0	0	78	0	111	0	252	74	0	117	108	740
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	881	6	1170	0	3048	818	0	1718	1219	8860
Approach %	####	####	####	42.83	0.29	56.88	0.00	78.84	21.16	0.00	58.50	41.50	
App/Depart	0	/	1219	2057	/	824	3866	/	3929	2937	/	2888	

AM Peak Hr Begins at: 715 AM

**PEAK**

Volumes	0	0	0	319	4	428	0	1183	286	0	744	388	3352
Approach %	####	####	####	42.48	0.53	56.99	0.00	80.53	19.47	0.00	65.72	34.28	

**PEAK HR.**

FACTOR:	0.000	0.850	0.934	0.950	0.963
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CONTROL: **Signal**  
 COMMENT 1:  
 GPS: **33.598808, -117.175700**

# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **I-215 SB Ramps**      DATE: **09/30/21**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd**      DAY: **THURSDAY**      PROJECT#: **21-1607-006**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0.5	0.5	2	0	3	1	0	3	1	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	0	0	0	45	0	166	0	231	90	0	114	108	754
3:15 PM	0	0	0	69	0	139	0	171	89	0	236	103	807
3:30 PM	0	0	0	66	0	152	0	176	88	0	214	78	774
3:45 PM	0	0	0	65	0	125	0	241	78	0	243	74	826
4:00 PM	0	0	0	65	0	115	0	281	74	0	285	87	907
4:15 PM	0	0	0	60	0	125	0	241	87	0	266	104	883
4:30 PM	0	0	0	69	0	124	0	276	98	0	313	106	986
4:45 PM	0	0	0	86	0	125	0	301	90	0	317	108	1027
5:00 PM	0	0	0	80	1	131	0	199	99	0	311	101	922
5:15 PM	0	0	0	78	0	133	0	187	89	0	289	103	879
5:30 PM	0	0	0	74	0	85	0	186	80	0	325	78	828
5:45 PM	0	0	0	54	0	78	0	182	78	0	363	74	829
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	811	1	1498	0	2672	1040	0	3276	1124	10422
Approach %	####	####	####	35.11	0.04	64.85	0.00	71.98	28.02	0.00	74.45	25.55	
App/Depart	0	/	1124	2310	/	1041	3712	/	3483	4400	/	4774	

PM Peak Hr Begins at: 415 PM

**PEAK**

Volumes	0	0	0	295	1	505	0	1017	374	0	1207	419	3818
Approach %	####	####	####	36.83	0.12	63.05	0.00	73.11	26.89	0.00	74.23	25.77	

**PEAK HR.**

FACTOR:	0.000	0.945	0.889	0.956	0.929
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CONTROL: **Signal**  
 COMMENT 1: **0**  
 GPS: **33.598808, -117.175700**



### Pedestrian & Bicycle Study

**N-S STREET:** I-215 SB Ramps  
**E-W STREET:** Clinton Keith Rd

**Date:** 09/30/21  
**Day:** THURSDAY

**City:** Murrieta  
**Project #:** 21-1607-00

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	1	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	1	2	0	0
11:30 AM	0	0	0	0
11:45 AM	2	5	0	0
12:00 PM	0	4	0	0
12:15 PM	0	2	0	0
12:30 PM	0	1	0	0
12:45 PM	1	3	0	0
1:00 PM	0	2	0	0
1:15 PM	0	5	0	0
1:30 PM	1	5	0	0
1:45 PM	0	2	0	0
<b>TOTAL</b>	<b>5</b>	<b>31</b>	<b>0</b>	<b>0</b>

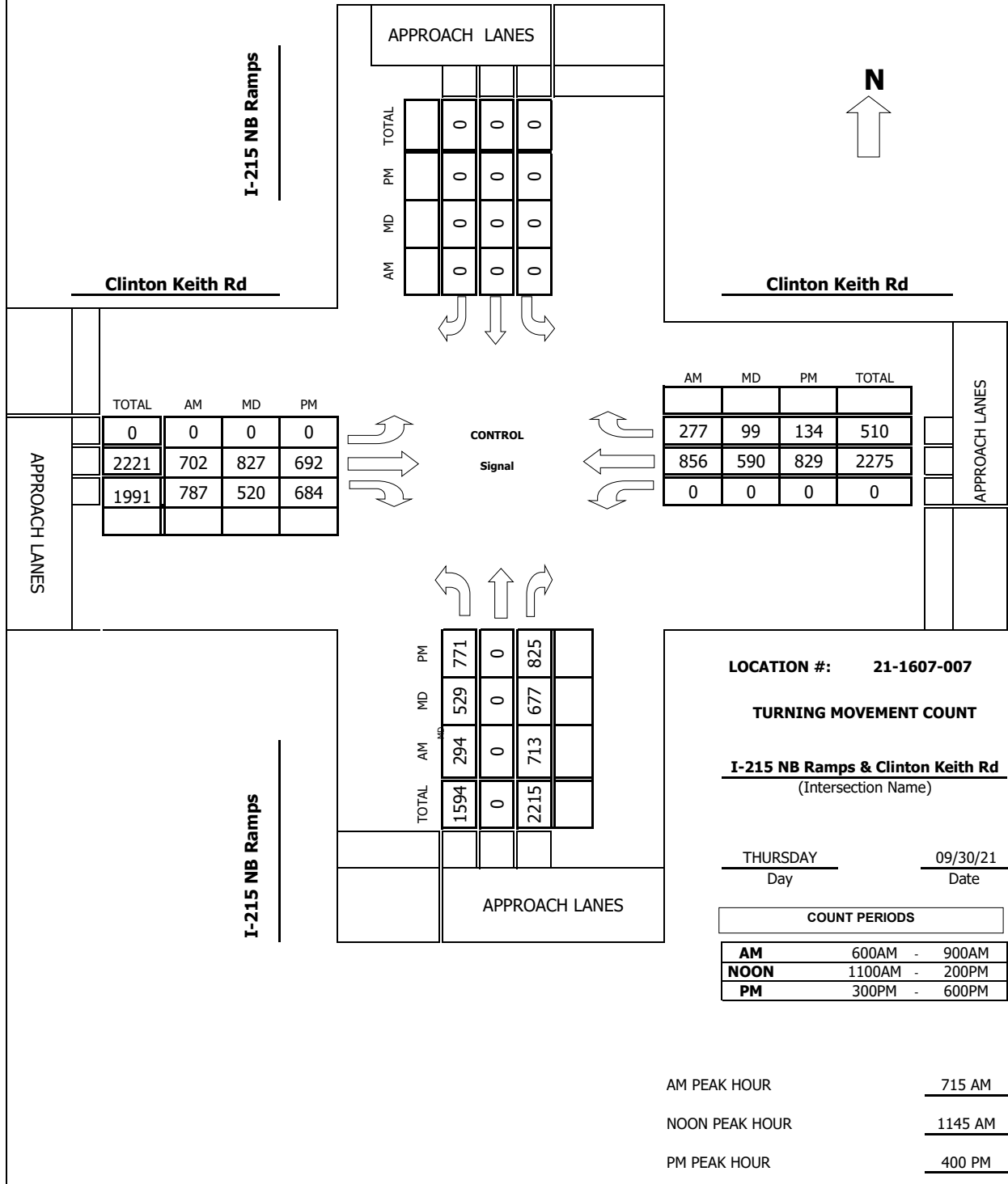
	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	1	0	0
3:15 PM	0	0	0	0
3:30 PM	1	1	0	0
3:45 PM	0	3	0	0
4:00 PM	0	2	0	0
4:15 PM	2	1	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	1	0	0
5:15 PM	1	1	0	0
5:30 PM	0	1	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>5</b>	<b>11</b>	<b>0</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Project #:** 21-1607-007

**TMC SUMMARY OF I-215 NB Ramps & Clinton Keith Rd**



## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **I-215 NB Ramps**      DATE: **09/30/21**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd**      DAY: **THURSDAY**      PROJECT#: **21-1607-007**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0.5	0	1.5	0	0	0	0	3	1	0	3	1	
6:00 AM	28	0	74	0	0	0	0	87	139	0	113	87	528
6:15 AM	21	0	66	0	0	0	0	128	136	0	128	80	559
6:30 AM	40	0	86	0	0	0	0	133	157	0	199	70	685
6:45 AM	65	0	101	0	0	0	0	166	193	0	214	76	815
7:00 AM	66	0	103	0	0	0	0	143	187	0	239	69	807
7:15 AM	60	0	128	0	0	0	0	174	174	0	241	60	837
7:30 AM	74	0	225	0	0	0	0	210	201	0	215	65	990
7:45 AM	75	0	186	0	0	0	0	189	211	0	192	84	937
8:00 AM	85	0	174	0	0	0	0	129	201	0	208	68	865
8:15 AM	89	3	146	0	0	0	0	100	203	0	156	74	771
8:30 AM	99	0	141	0	0	0	0	139	202	0	131	75	787
8:45 AM	90	0	143	0	0	0	0	128	199	0	136	85	781
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	792	3	1573	0	0	0	0	1726	2203	0	2172	893	9362
Approach %	33.45	0.13	66.43	####	####	####	0.00	43.93	56.07	0.00	70.86	29.14	
App/Depart	2368	/	896	0	/	2203	3929	/	3299	3065	/	2964	

AM Peak Hr Begins at: 715 AM

**PEAK**

Volumes	294	0	713	0	0	0	0	702	787	0	856	277	3629
Approach %	29.20	0.00	70.80	####	####	####	0.00	47.15	52.85	0.00	75.55	24.45	

**PEAK HR.**

FACTOR:	0.842	0.000	0.906	0.941	0.916
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CONTROL: **Signal**  
 COMMENT 1:  
 GPS: **33.598228, -117.173277**

# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: I-215 NB Ramps      DATE: 09/30/21      LOCATION: Murrieta  
 E-W STREET: Clinton Keith Rd      DAY: THURSDAY      PROJECT#: 21-1607-007

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0.5	0	1.5	0	0	0	0	3	1	0	3	1	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	78	0	122	0	0	0	0	163	111	0	152	28	654
3:15 PM	101	0	131	0	0	0	0	136	107	0	236	24	735
3:30 PM	109	0	141	0	0	0	0	115	128	0	189	29	711
3:45 PM	153	0	207	0	0	0	0	187	123	0	163	26	859
4:00 PM	238	0	222	0	0	0	0	155	192	0	144	40	991
4:15 PM	213	0	204	0	0	0	0	130	172	0	161	50	930
4:30 PM	174	0	196	0	0	0	0	169	174	0	243	20	976
4:45 PM	146	0	203	0	0	0	0	238	146	0	281	24	1038
5:00 PM	133	0	202	0	0	0	0	117	163	0	288	41	944
5:15 PM	131	0	201	0	0	0	0	131	139	0	263	43	908
5:30 PM	128	0	189	0	0	0	0	136	133	0	277	33	896
5:45 PM	104	0	178	0	0	0	0	115	131	0	321	30	879
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	1708	0	2196	0	0	0	0	1792	1719	0	2718	388	10521
Approach %	43.75	0.00	56.25	####	####	####	0.00	51.04	48.96	0.00	87.51	12.49	
App/Depart	3904	/	388	0	/	1719	3511	/	3988	3106	/	4426	

PM Peak Hr Begins at: 400 PM

**PEAK**

Volumes	771	0	825	0	0	0	0	692	684	0	829	134	3935
Approach %	48.31	0.00	51.69	####	####	####	0.00	50.29	49.71	0.00	86.09	13.91	

**PEAK HR.**

FACTOR:	0.867	0.000	0.896	0.789	0.948
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CONTROL: Signal  
 COMMENT 1: 0  
 GPS: 33.598228, -117.173277



### Pedestrian & Bicycle Study

**N-S STREET:** I-215 NB Ramps  
**E-W STREET:** Clinton Keith Rd

**Date:** 09/30/21  
**Day:** THURSDAY

**City:** Murrieta  
**Project #:** 21-1607-00

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	1	2	0	0
11:30 AM	0	0	0	0
11:45 AM	2	5	0	0
12:00 PM	0	4	0	0
12:15 PM	0	2	0	0
12:30 PM	0	1	0	0
12:45 PM	1	3	0	0
1:00 PM	0	2	0	0
1:15 PM	1	4	0	0
1:30 PM	1	4	0	0
1:45 PM	0	2	0	0
<b>TOTAL</b>	<b>6</b>	<b>29</b>	<b>0</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

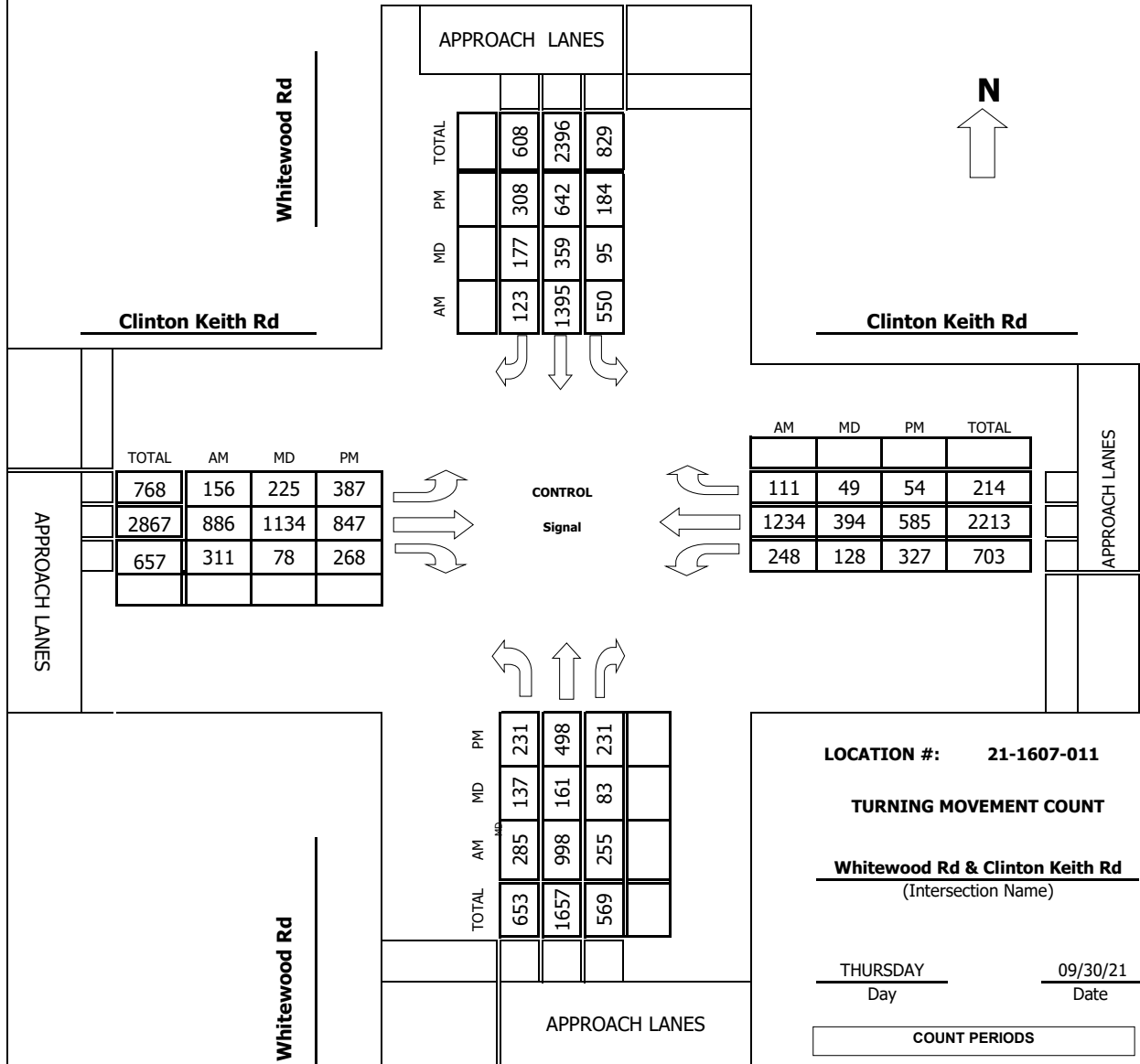
	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	1	0	0
3:15 PM	0	0	0	0
3:30 PM	1	1	0	0
3:45 PM	0	0	0	0
4:00 PM	0	2	0	0
4:15 PM	2	1	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	1	0	0
5:15 PM	1	1	0	0
5:30 PM	0	1	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>5</b>	<b>8</b>	<b>0</b>	<b>0</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



**Project #:** 21-1607-011

***TMC SUMMARY OF Whitewood Rd & Clinton Keith Rd***



**LOCATION #:** 21-1607-011

**TURNING MOVEMENT COUNT**

**Whitewood Rd & Clinton Keith Rd**  
 (Intersection Name)

THURSDAY                      09/30/21  
 Day                                      Date

**COUNT PERIODS**

<b>AM</b>	600AM - 900AM
<b>NOON</b>	1100AM - 200PM
<b>PM</b>	300PM - 600PM

AM PEAK HOUR                      630 AM

NOON PEAK HOUR                      1130 AM

PM PEAK HOUR                      430 PM

## Intersection Turning Movement Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **Whitewood Rd**      DATE: **09/30/21**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd**      DAY: **THURSDAY**      PROJECT# **21-1607-011**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 2	ET 2	ER 1	WL 2	WT 3	WR 1	
6:00 AM	31	60	13	19	175	9	10	76	78	14	163	21	669
6:15 AM	38	62	20	18	147	14	20	99	76	31	181	14	720
6:30 AM	70	193	58	108	362	18	19	128	80	51	304	15	1406
6:45 AM	50	197	82	174	333	31	29	207	70	71	428	13	1685
7:00 AM	79	303	54	185	408	50	52	296	84	59	269	46	1885
7:15 AM	86	305	61	83	292	24	56	255	77	67	233	37	1576
7:30 AM	41	152	22	73	197	18	20	374	45	63	232	32	1269
7:45 AM	54	199	26	74	216	13	19	301	50	55	190	20	1217
8:00 AM	33	108	25	63	214	5	24	256	19	25	236	20	1028
8:15 AM	25	125	24	66	186	7	22	216	19	33	228	42	993
8:30 AM	24	111	25	60	196	4	20	222	20	30	201	28	941
8:45 AM	26	104	26	54	166	8	21	220	21	32	189	24	891
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	557	1919	436	977	2892	201	312	2650	639	531	2854	312	14280
Approach %	19.13	65.90	14.97	24.00	71.06	4.94	8.66	73.59	17.75	14.36	77.20	8.44	
App/Depart	2912	/	2543	4070	/	4062	3601	/	4063	3697	/	3612	

AM Peak Hr Begins at: 630 AM

**PEAK**

Volumes	285	998	255	550	1395	123	156	886	311	248	1234	111	6552
Approach %	18.53	64.89	16.58	26.60	67.46	5.95	11.53	65.48	22.99	15.57	77.46	6.97	

**PEAK HR.**

FACTOR:	0.851	0.804	0.783	0.778	0.869
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CONTROL: **Signal**  
 COMMENT 1:  
 GPS: **33.597872, -117.162805**

# Intersection Turning Movement



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



N-S STREET: **Whitewood Rd**      DATE: **09/30/21**      LOCATION: **Murrieta**  
 E-W STREET: **Clinton Keith Rd**      DAY: **THURSDAY**      PROJECT#: **21-1607-011**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	1.5	0.5	2	2	1	2	3	1	

1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	41	74	50	63	143	67	41	199	41	111	71	16	917
3:15 PM	28	78	55	50	154	74	87	176	45	139	113	14	1013
3:30 PM	31	86	54	65	204	99	85	126	55	116	96	13	1030
3:45 PM	39	97	46	37	127	68	84	279	17	42	68	12	916
4:00 PM	47	91	71	57	153	60	64	277	45	55	65	15	1000
4:15 PM	41	101	53	36	129	62	48	239	58	54	99	12	932
4:30 PM	56	105	45	65	178	98	127	170	70	95	90	18	1117
4:45 PM	79	145	56	34	185	89	90	288	112	115	98	12	1303
5:00 PM	44	103	73	35	110	63	83	189	53	83	211	16	1063
5:15 PM	52	145	57	50	169	58	87	200	33	34	186	8	1079
5:30 PM	30	124	63	44	128	61	113	163	48	77	223	20	1094
5:45 PM	30	128	63	40	133	55	111	120	43	63	221	14	1021
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	518	1277	686	576	1813	854	1020	2426	620	984	1541	170	12485
Approach %	20.88	51.47	27.65	17.76	55.91	26.33	25.09	59.67	15.25	36.51	57.18	6.31	
App/Depart	2481	/	2467	3243	/	3417	4066	/	3688	2695	/	2913	

PM Peak Hr Begins at: 430 PM

**PEAK**

Volumes	231	498	231	184	642	308	387	847	268	327	585	54	4562
Approach %	24.06	51.88	24.06	16.23	56.61	27.16	25.77	56.39	17.84	33.85	60.56	5.59	

**PEAK HR.**

FACTOR:	0.857	0.831	0.766	0.779	0.875
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CONTROL: **Signal**  
 COMMENT 1: **0**  
 GPS: **33.597872, -117.162805**



### Pedestrian & Bicycle Study

**N-S STREET:** Whitewood Rd  
**E-W STREET:** Clinton Keith Rd

**Date:** 09/30/21  
**Day:** THURSDAY

**City:** Murrieta  
**Project #:** 21-1607-01

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	2	5	4	6
6:45 AM	11	34	13	35
7:00 AM	41	69	71	23
7:15 AM	1	9	8	2
7:30 AM	2	4	2	3
7:45 AM	2	0	0	3
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>59</b>	<b>121</b>	<b>99</b>	<b>72</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	2	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	2
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	1	0	0
1:00 PM	0	0	0	0
1:15 PM	0	2	0	5
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>7</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	1	0	2
3:45 PM	1	0	0	0
4:00 PM	1	0	2	0
4:15 PM	0	0	0	1
4:30 PM	2	0	0	0
4:45 PM	0	1	0	2
5:00 PM	2	0	0	0
5:15 PM	0	0	0	6
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>12</b>

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**APPENDIX 3.2:**

**EXISTING (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

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Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

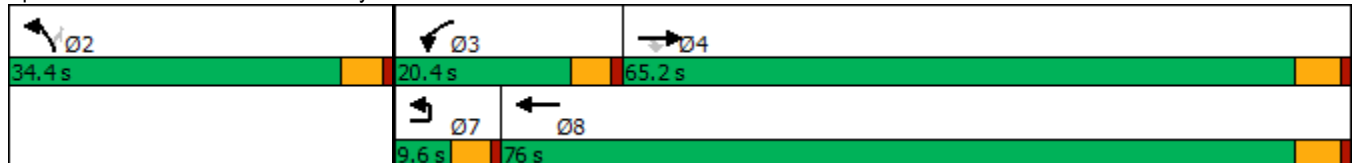


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	543	393	109	909	270	38	
Future Volume (vph)	543	393	109	909	270	38	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	65.2	65.2	20.4	76.0	34.4	34.4	9.6
Total Split (%)	54.3%	54.3%	17.0%	63.3%	28.7%	28.7%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 78.4  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	0	543	393	109	909	270	38
Future Volume (veh/h)	0	543	393	109	909	270	38
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		566	275	114	947	281	31
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1577	703	148	1148	360	320
Arrive On Green		0.44	0.44	0.08	0.61	0.20	0.20
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		566	275	114	947	281	31
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		5.6	6.2	3.3	21.0	7.9	0.8
Cycle Q Clear(g_c), s		5.6	6.2	3.3	21.0	7.9	0.8
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1577	703	148	1148	360	320
V/C Ratio(X)		0.36	0.39	0.77	0.83	0.78	0.10
Avail Cap(c_a), veh/h		4024	1795	530	2498	997	887
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		9.8	9.9	23.8	8.0	20.1	17.2
Incr Delay (d2), s/veh		0.1	0.4	3.2	1.6	3.7	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.7	1.8	1.4	5.5	3.3	0.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		9.9	10.3	27.0	9.6	23.8	17.4
LnGrp LOS		A	B	C	A	C	B
Approach Vol, veh/h		841			1061	312	
Approach Delay, s/veh		10.0			11.5	23.2	
Approach LOS		B			B	C	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		15.4	9.0	28.7			37.7
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 30	15.8	60.1			70.9
Max Q Clear Time (g_c+I1), s		9.9	5.3	8.2			23.0
Green Ext Time (p_c), s		0.9	0.1	5.3			9.5
<b>Intersection Summary</b>							
HCM 6th Ctrl Delay			12.6				
HCM 6th LOS			B				

Notes

User approved ignoring U-Turning movement.

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

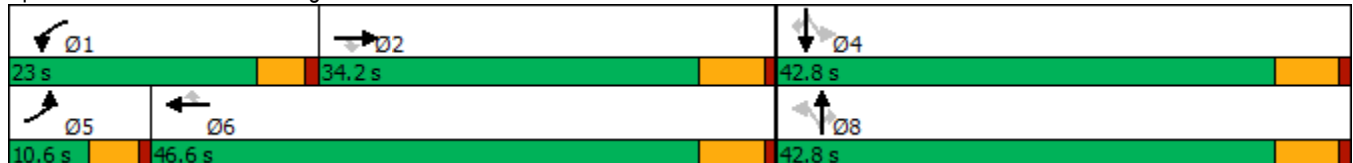
12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	759	127	354	1065	77	117	81	316	117	61	54
Future Volume (vph)	30	759	127	354	1065	77	117	81	316	117	61	54
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	34.8	34.8	42.8	42.8	42.8	11.8	11.8	11.8
Total Split (s)	10.6	34.2	34.2	23.0	46.6	46.6	42.8	42.8	42.8	42.8	42.8	42.8
Total Split (%)	10.6%	34.2%	34.2%	23.0%	46.6%	46.6%	42.8%	42.8%	42.8%	42.8%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 75.6  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	759	127	354	1065	77	117	81	316	117	61	54
Future Volume (veh/h)	30	759	127	354	1065	77	117	81	316	117	61	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	791	106	369	1109	55	122	84	188	122	64	51
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	1127	489	418	1822	792	335	386	318	293	386	322
Arrive On Green	0.04	0.32	0.32	0.23	0.51	0.51	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1541	1781	3554	1545	1277	1870	1542	1098	1870	1563
Grp Volume(v), veh/h	31	791	106	369	1109	55	122	84	188	122	64	51
Grp Sat Flow(s),veh/h/ln	1781	1777	1541	1781	1777	1545	1277	1870	1542	1098	1870	1563
Q Serve(g_s), s	1.1	13.1	3.4	13.4	14.8	1.2	5.8	2.5	7.4	7.0	1.9	1.8
Cycle Q Clear(g_c), s	1.1	13.1	3.4	13.4	14.8	1.2	7.7	2.5	7.4	9.5	1.9	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	70	1127	489	418	1822	792	335	386	318	293	386	322
V/C Ratio(X)	0.44	0.70	0.22	0.88	0.61	0.07	0.36	0.22	0.59	0.42	0.17	0.16
Avail Cap(c_a), veh/h	160	1507	653	489	2164	941	777	1033	852	673	1033	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	20.1	16.8	24.7	11.6	8.2	25.0	22.1	24.0	26.0	21.8	21.8
Incr Delay (d2), s/veh	4.4	1.2	0.3	15.3	0.5	0.1	0.8	0.3	2.2	1.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.9	1.1	6.8	4.6	0.3	1.8	1.1	2.7	1.8	0.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	21.3	17.1	40.1	12.0	8.3	25.8	22.4	26.2	27.2	22.1	22.1
LnGrp LOS	D	C	B	D	B	A	C	C	C	C	C	C
Approach Vol, veh/h		928			1533			394			237	
Approach Delay, s/veh		21.3			18.7			25.3			24.7	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.3	27.0		19.6	7.2	40.1		19.6				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	18.4	28.4		37.0	6.0	40.8		37.0				
Max Q Clear Time (g_c+I1), s	15.4	15.1		11.5	3.1	16.8		9.7				
Green Ext Time (p_c), s	0.4	5.7		1.3	0.0	11.0		2.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

Timings  
3: California Oaks St. & Clinton Keith Rd.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓↓↓	↓
Traffic Volume (vph)	1162	139	568	1271	118	359
Future Volume (vph)	1162	139	568	1271	118	359
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	33.8	33.8	10.6	15.8	33.8	33.8
Total Split (s)	49.2	49.2	47.0	96.2	33.8	33.8
Total Split (%)	37.8%	37.8%	36.2%	74.0%	26.0%	26.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 130  
 Actuated Cycle Length: 113.5  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↑
Traffic Volume (veh/h)	1162	139	568	1271	118	359
Future Volume (veh/h)	1162	139	568	1271	118	359
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1186	142	580	1297	120	366
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1303	580	609	2661	268	476
Arrive On Green	0.37	0.37	0.34	0.75	0.15	0.15
Sat Flow, veh/h	3647	1581	1781	3647	1781	3170
Grp Volume(v), veh/h	1186	142	580	1297	120	366
Grp Sat Flow(s),veh/h/ln	1777	1581	1781	1777	1781	1585
Q Serve(g_s), s	36.4	7.2	36.5	16.6	7.1	12.7
Cycle Q Clear(g_c), s	36.4	7.2	36.5	16.6	7.1	12.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1303	580	609	2661	268	476
V/C Ratio(X)	0.91	0.25	0.95	0.49	0.45	0.77
Avail Cap(c_a), veh/h	1343	597	658	2797	434	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	25.3	36.9	5.7	44.5	46.9
Incr Delay (d2), s/veh	9.5	0.3	23.1	0.2	1.9	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	2.6	18.9	4.6	3.2	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.1	25.6	59.9	5.9	46.3	51.0
LnGrp LOS	D	C	E	A	D	D
Approach Vol, veh/h	1328			1877	486	
Approach Delay, s/veh	42.1			22.6	49.9	
Approach LOS	D			C	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	43.9	47.9			91.8	23.1
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	42.4	43.4			90.4	28.0
Max Q Clear Time (g_c+I1), s	38.5	38.4			18.6	14.7
Green Ext Time (p_c), s	0.8	3.7			18.4	2.5

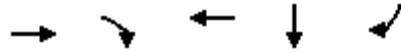
Intersection Summary

HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

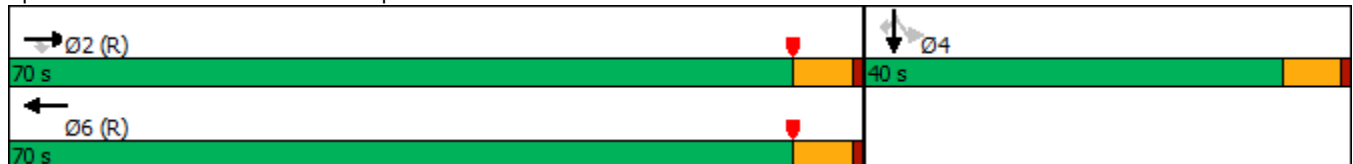


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	1579	568	830	4	428
Future Volume (vph)	1579	568	830	4	428
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	1579	568	0	830	649	0	0	0	327	4	428
Future Volume (veh/h)	0	1579	568	0	830	649	0	0	0	327	4	428
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1680	604	0	883	690				348	4	455
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3409	1044	0	2273	1037				400	5	633
Arrive On Green	0.00	0.67	0.67	0.00	1.00	1.00				0.23	0.23	0.23
Sat Flow, veh/h	0	5274	1563	0	3572	1552				1762	20	2790
Grp Volume(v), veh/h	0	1680	604	0	883	690				352	0	455
Grp Sat Flow(s),veh/h/ln	0	1702	1563	0	1702	1552				1782	0	1395
Q Serve(g_s), s	0.0	17.9	23.0	0.0	0.0	0.0				20.9	0.0	16.6
Cycle Q Clear(g_c), s	0.0	17.9	23.0	0.0	0.0	0.0				20.9	0.0	16.6
Prop In Lane	0.00		1.00	0.00		1.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	3409	1044	0	2273	1037				404	0	633
V/C Ratio(X)	0.00	0.49	0.58	0.00	0.39	0.67				0.87	0.00	0.72
Avail Cap(c_a), veh/h	0	3409	1044	0	2273	1037				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.75	0.75				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	9.1	9.9	0.0	0.0	0.0				41.0	0.0	39.3
Incr Delay (d2), s/veh	0.0	0.5	2.3	0.0	0.4	2.5				8.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	7.2	0.0	0.1	0.7				10.0	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.6	12.2	0.0	0.4	2.5				49.6	0.0	40.2
LnGrp LOS	A	A	B	A	A	A				D	A	D
Approach Vol, veh/h		2284			1573						807	
Approach Delay, s/veh		10.3			1.3						44.3	
Approach LOS		B			A						D	
Timer - Assigned Phs		2			4						6	
Phs Duration (G+Y+Rc), s		79.2			30.8						79.2	
Change Period (Y+Rc), s		5.8			5.8						5.8	
Max Green Setting (Gmax), s		64.2			34.2						64.2	
Max Q Clear Time (g_c+I1), s		25.0			22.9						2.0	
Green Ext Time (p_c), s		12.3			2.0						9.1	
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

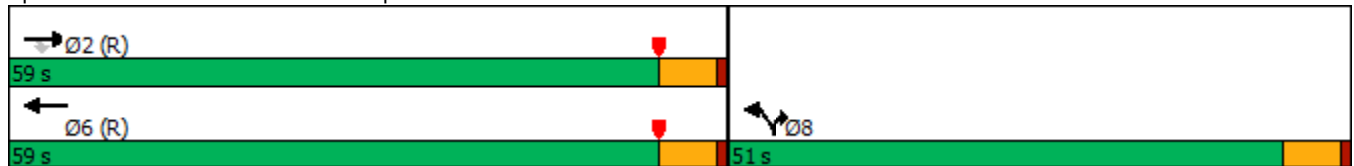


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↘	↘
Traffic Volume (vph)	1104	802	1185	294	767
Future Volume (vph)	1104	802	1185	294	767
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	43.8	43.8	22.0	22.0	22.0
Total Split (s)	59.0	59.0	59.0	51.0	51.0
Total Split (%)	53.6%	53.6%	53.6%	46.4%	46.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 12 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1104	802	0	1185	294	767
Future Volume (veh/h)	1104	802	0	1185	294	767
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1200	0	0	1288	560	577
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2616		0	2616	681	606
Arrive On Green	1.00	0.00	0.00	0.51	0.38	0.38
Sat Flow, veh/h	5274	1585	0	5443	1781	1585
Grp Volume(v), veh/h	1200	0	0	1288	560	577
Grp Sat Flow(s),veh/h/ln	1702	1585	0	1702	1781	1585
Q Serve(g_s), s	0.0	0.0	0.0	18.1	31.2	38.9
Cycle Q Clear(g_c), s	0.0	0.0	0.0	18.1	31.2	38.9
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2616		0	2616	681	606
V/C Ratio(X)	0.46		0.00	0.49	0.82	0.95
Avail Cap(c_a), veh/h	2616		0	2616	732	651
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.5	30.6	33.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	6.4	22.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	6.5	14.1	18.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.5	0.0	0.0	17.6	37.0	55.7
LnGrp LOS	A		A	B	D	E
Approach Vol, veh/h	1200	A		1288	1137	
Approach Delay, s/veh	0.5			17.6	46.5	
Approach LOS	A			B	D	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		62.2			62.2	47.8
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		53.2			53.2	45.2
Max Q Clear Time (g_c+I1), s		2.0			20.1	40.9
Green Ext Time (p_c), s		6.0			6.5	1.2

Intersection Summary

HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.  
 Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.



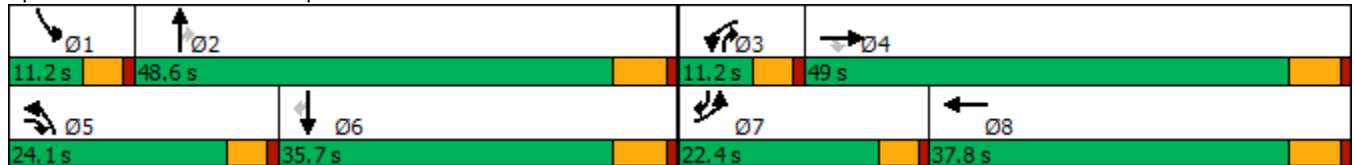
Timings  
6: Antelope Rd. & Scott Rd.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	222	622	331	116	755	256	146	66	65	170	390	
Future Volume (vph)	222	622	331	116	755	256	146	66	65	170	390	
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	
Protected Phases	7	4	5	3	8	5	2	3	1	6	7	
Permitted Phases			4					2			6	
Detector Phase	7	4	5	3	8	5	2	3	1	6	7	
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6	
Total Split (s)	22.4	49.0	24.1	11.2	37.8	24.1	48.6	11.2	11.2	35.7	22.4	
Total Split (%)	18.7%	40.8%	20.1%	9.3%	31.5%	20.1%	40.5%	9.3%	9.3%	29.8%	18.7%	
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 80.7  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated
































Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

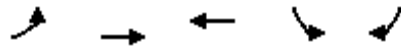
12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	  		 	 			 	
Traffic Volume (veh/h)	222	622	331	116	755	54	256	146	66	65	170	390
Future Volume (veh/h)	222	622	331	116	755	54	256	146	66	65	170	390
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	244	684	217	127	830	54	281	160	35	71	187	333
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	348	1032	638	227	1251	81	389	1036	566	96	435	529
Arrive On Green	0.10	0.29	0.29	0.07	0.26	0.26	0.11	0.29	0.29	0.05	0.23	0.23
Sat Flow, veh/h	3456	3554	1585	3456	4900	318	3456	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	244	684	217	127	576	308	281	160	35	71	187	333
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1813	1728	1777	1585	1781	1870	1585
Q Serve(g_s), s	4.8	11.8	6.6	2.5	10.6	10.6	5.5	2.3	1.0	2.7	5.9	12.3
Cycle Q Clear(g_c), s	4.8	11.8	6.6	2.5	10.6	10.6	5.5	2.3	1.0	2.7	5.9	12.3
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	348	1032	638	227	869	463	389	1036	566	96	435	529
V/C Ratio(X)	0.70	0.66	0.34	0.56	0.66	0.67	0.72	0.15	0.06	0.74	0.43	0.63
Avail Cap(c_a), veh/h	884	2205	1162	328	1565	834	968	2185	1079	169	803	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	21.7	14.4	31.5	23.2	23.3	29.8	18.3	14.7	32.5	22.8	19.6
Incr Delay (d2), s/veh	1.0	0.7	0.3	0.8	0.9	1.7	1.0	0.1	0.0	4.2	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.4	2.1	1.0	3.9	4.2	2.1	0.9	0.3	1.2	2.4	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	22.4	14.7	32.3	24.1	24.9	30.8	18.4	14.7	36.7	23.4	20.8
LnGrp LOS	C	C	B	C	C	C	C	B	B	D	C	C
Approach Vol, veh/h		1145			1011			476			591	
Approach Delay, s/veh		22.9			25.4			25.4			23.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	26.1	9.2	26.0	12.4	22.0	11.6	23.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	6.6	42.8	6.6	43.2	19.5	29.9	17.8	32.0				
Max Q Clear Time (g_c+1), s	4.7	4.3	4.5	13.8	7.5	14.3	6.8	12.6				
Green Ext Time (p_c), s	0.0	1.0	0.0	5.4	0.4	1.9	0.3	5.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				24.2								
HCM 6th LOS				C								

Timings

8: Baxter Rd. & Warm Springs Rd.

12/06/2021



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↗	↕	↖	↗
Traffic Volume (vph)	7	127	212	5	10
Future Volume (vph)	7	127	212	5	10
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	6.0	10.0	10.0	6.0	6.0
Minimum Split (s)	10.6	15.8	38.8	25.6	25.6
Total Split (s)	10.6	49.4	38.8	25.6	25.6
Total Split (%)	14.1%	65.9%	51.7%	34.1%	34.1%
Yellow Time (s)	3.6	4.8	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min	None	None

Intersection Summary

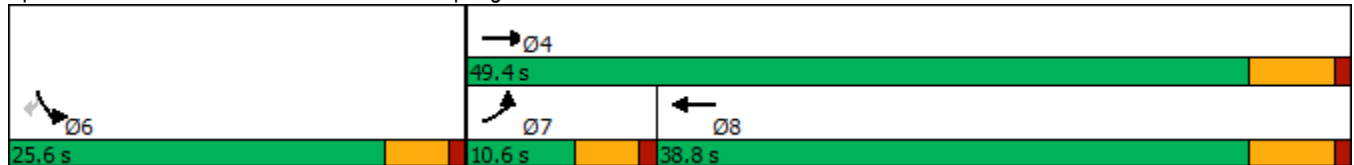
Cycle Length: 75

Actuated Cycle Length: 33

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

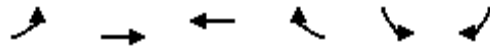
Splits and Phases: 8: Baxter Rd. & Warm Springs Rd.



HCM 6th Signalized Intersection Summary  
 8: Baxter Rd. & Warm Springs Rd.

Discovery Village (JN:14073)

12/06/2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↶		↶	↷	
Traffic Volume (veh/h)	7	127	212	10	5	10	
Future Volume (veh/h)	7	127	212	10	5	10	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	7	131	219	9	5	1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	20	2077	1368	56	17	16	
Arrive On Green	0.01	0.58	0.39	0.39	0.01	0.01	
Sat Flow, veh/h	1781	3647	3569	142	1781	1585	
Grp Volume(v), veh/h	7	131	111	117	5	1	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1841	1781	1585	
Q Serve(g_s), s	0.1	0.4	1.0	1.1	0.1	0.0	
Cycle Q Clear(g_c), s	0.1	0.4	1.0	1.1	0.1	0.0	
Prop In Lane	1.00			0.08	1.00	1.00	
Lane Grp Cap(c), veh/h	20	2077	699	724	17	16	
V/C Ratio(X)	0.35	0.06	0.16	0.16	0.29	0.06	
Avail Cap(c_a), veh/h	417	6046	2288	2371	1460	1299	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	12.6	2.3	5.0	5.0	12.6	12.6	
Incr Delay (d2), s/veh	9.8	0.0	0.2	0.2	8.7	1.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.1	0.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.4	2.3	5.2	5.2	21.3	14.3	
LnGrp LOS	C	A	A	A	C	B	
Approach Vol, veh/h		138	228		6		
Approach Delay, s/veh		3.3	5.2		20.2		
Approach LOS		A	A		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				20.8	4.9	4.9	15.9
Change Period (Y+Rc), s				5.8	4.6	4.6	5.8
Max Green Setting (Gmax), s				43.6	21.0	6.0	33.0
Max Q Clear Time (g_c+I1), s				2.4	2.1	2.1	3.1
Green Ext Time (p_c), s				1.2	0.0	0.0	1.9
<b>Intersection Summary</b>							
HCM 6th Ctrl Delay			4.7				
HCM 6th LOS			A				

Timings  
17: Menifee Rd. & Scott Rd.

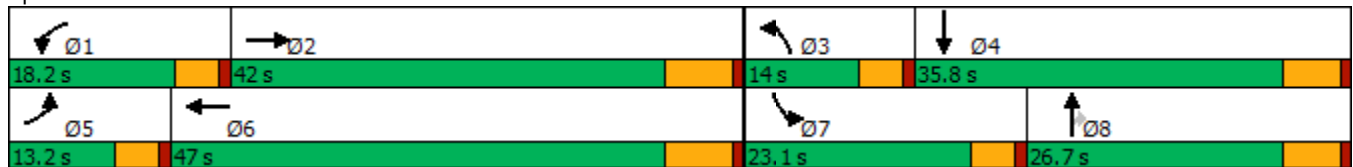


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	78	692	205	847	136	180	200	152	284
Future Volume (vph)	78	692	205	847	136	180	200	152	284
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	13.2	42.0	18.2	47.0	14.0	26.7	26.7	23.1	35.8
Total Split (%)	12.0%	38.2%	16.5%	42.7%	12.7%	24.3%	24.3%	21.0%	32.5%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 108.4  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated























Splits and Phases: 17: Menifee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

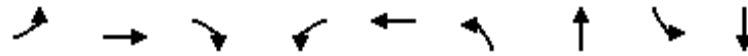
Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	692	91	205	847	122	136	180	200	152	284	127
Future Volume (veh/h)	78	692	91	205	847	122	136	180	200	152	284	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	760	89	225	931	122	149	198	152	167	312	136
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	976	114	229	1171	153	158	470	393	199	337	147
Arrive On Green	0.06	0.30	0.30	0.13	0.37	0.37	0.09	0.25	0.25	0.11	0.27	0.27
Sat Flow, veh/h	1781	3205	375	1781	3150	413	1781	1870	1562	1781	1227	535
Grp Volume(v), veh/h	86	421	428	225	525	528	149	198	152	167	0	448
Grp Sat Flow(s),veh/h/ln	1781	1777	1803	1781	1777	1786	1781	1870	1562	1781	0	1762
Q Serve(g_s), s	5.0	22.9	22.9	13.3	27.9	27.9	8.8	9.4	8.5	9.7	0.0	26.1
Cycle Q Clear(g_c), s	5.0	22.9	22.9	13.3	27.9	27.9	8.8	9.4	8.5	9.7	0.0	26.1
Prop In Lane	1.00		0.21	1.00		0.23	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	109	541	549	229	661	664	158	470	393	199	0	484
V/C Ratio(X)	0.79	0.78	0.78	0.98	0.79	0.80	0.94	0.42	0.39	0.84	0.00	0.93
Avail Cap(c_a), veh/h	145	597	605	229	681	684	158	470	393	312	0	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.9	33.5	33.5	45.9	29.6	29.6	47.9	33.1	32.8	46.0	0.0	37.3
Incr Delay (d2), s/veh	18.4	10.6	10.5	54.2	9.6	9.5	54.1	2.3	2.4	11.0	0.0	25.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	10.6	10.8	9.0	12.5	12.6	6.1	4.4	3.4	4.7	0.0	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.4	44.1	44.0	100.1	39.2	39.2	102.0	35.4	35.2	57.0	0.0	62.8
LnGrp LOS	E	D	D	F	D	D	F	D	D	E	A	E
Approach Vol, veh/h		935			1278			499			615	
Approach Delay, s/veh		46.2			49.9			55.2			61.2	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	38.7	14.0	34.8	11.1	45.8	16.4	32.4				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	13.6	35.5	9.4	30.0	8.6	40.5	18.5	20.9				
Max Q Clear Time (g_c+I1), s	15.3	24.9	10.8	28.1	7.0	29.9	11.7	11.4				
Green Ext Time (p_c), s	0.0	7.3	0.0	0.9	0.0	8.5	0.2	2.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				51.7								
HCM 6th LOS				D								

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/06/2021

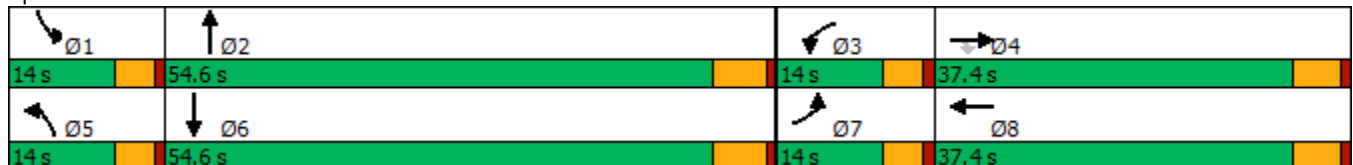


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↑	↗	↖	↕	↖	↕	↖	↕
Traffic Volume (vph)	57	16	36	21	16	15	251	6	560
Future Volume (vph)	57	16	36	21	16	15	251	6	560
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 51.3  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Meniffee Rd. & Keller Rd.

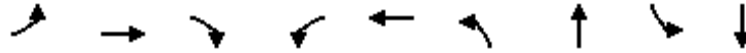
Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	16	36	21	16	20	15	251	9	6	560	51
Future Volume (veh/h)	57	16	36	21	16	20	15	251	9	6	560	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	18	23	23	18	14	17	279	8	7	622	50
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	345	287	57	301	205	44	1470	42	20	1341	108
Arrive On Green	0.07	0.18	0.18	0.03	0.15	0.15	0.02	0.42	0.42	0.01	0.40	0.40
Sat Flow, veh/h	1781	1870	1557	1781	2004	1368	1781	3525	101	1781	3326	267
Grp Volume(v), veh/h	63	18	23	23	16	16	17	140	147	7	332	340
Grp Sat Flow(s),veh/h/ln	1781	1870	1557	1781	1777	1595	1781	1777	1849	1781	1777	1816
Q Serve(g_s), s	2.0	0.5	0.7	0.7	0.4	0.5	0.5	2.9	2.9	0.2	7.9	7.9
Cycle Q Clear(g_c), s	2.0	0.5	0.7	0.7	0.4	0.5	0.5	2.9	2.9	0.2	7.9	7.9
Prop In Lane	1.00		1.00	1.00		0.86	1.00		0.05	1.00		0.15
Lane Grp Cap(c), veh/h	118	345	287	57	267	239	44	741	771	20	717	732
V/C Ratio(X)	0.53	0.05	0.08	0.40	0.06	0.07	0.38	0.19	0.19	0.36	0.46	0.46
Avail Cap(c_a), veh/h	292	1043	868	292	991	890	292	1511	1572	292	1511	1545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	19.3	19.4	27.2	20.9	20.9	27.5	10.6	10.6	28.2	12.6	12.6
Incr Delay (d2), s/veh	3.7	0.3	0.5	4.5	0.4	0.5	5.4	0.5	0.5	10.5	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.2	0.3	0.4	0.2	0.2	0.3	1.0	1.0	0.1	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	19.6	19.9	31.7	21.3	21.5	32.9	11.1	11.0	38.7	14.3	14.3
LnGrp LOS	C	B	B	C	C	C	C	B	B	D	B	B
Approach Vol, veh/h		104			55			304			679	
Approach Delay, s/veh		25.7			25.7			12.3			14.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	29.7	6.4	16.0	6.0	28.9	8.4	14.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	32.0	9.4	48.8	9.4	32.0				
Max Q Clear Time (g_c+I1), s	2.2	4.9	2.7	2.7	2.5	9.9	4.0	2.5				
Green Ext Time (p_c), s	0.0	4.4	0.0	0.4	0.0	11.8	0.0	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				15.5								
HCM 6th LOS				B								



Timings  
19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
12/06/2021

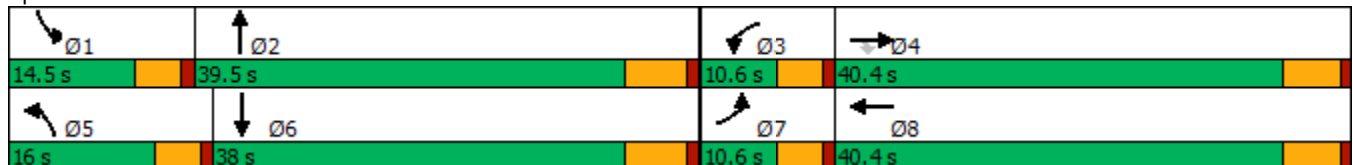


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↑	↘	↙	↑↓	↙	↑↓	↙	↑↓
Traffic Volume (vph)	20	3	120	36	13	182	330	5	747
Future Volume (vph)	20	3	120	36	13	182	330	5	747
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	16.0	39.5	14.5	38.0
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	15.2%	37.6%	13.8%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

























Cycle Length: 105  
 Actuated Cycle Length: 65  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	3	120	36	13	5	182	330	22	5	747	26
Future Volume (veh/h)	20	3	120	36	13	5	182	330	22	5	747	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	3	123	38	14	2	190	344	0	5	778	23
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	292	247	83	541	75	237	1628	0	14	1174	35
Arrive On Green	0.03	0.16	0.16	0.05	0.17	0.17	0.13	0.46	0.00	0.01	0.33	0.33
Sat Flow, veh/h	1781	1870	1585	1781	3126	435	1781	3647	0	1781	3522	104
Grp Volume(v), veh/h	21	3	123	38	8	8	190	344	0	5	392	409
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1784	1781	1777	0	1781	1777	1850
Q Serve(g_s), s	0.7	0.1	4.4	1.3	0.2	0.2	6.4	3.6	0.0	0.2	11.6	11.6
Cycle Q Clear(g_c), s	0.7	0.1	4.4	1.3	0.2	0.2	6.4	3.6	0.0	0.2	11.6	11.6
Prop In Lane	1.00		1.00	1.00		0.24	1.00		0.00	1.00		0.06
Lane Grp Cap(c), veh/h	52	292	247	83	308	309	237	1628	0	14	592	616
V/C Ratio(X)	0.40	0.01	0.50	0.46	0.03	0.03	0.80	0.21	0.00	0.35	0.66	0.66
Avail Cap(c_a), veh/h	174	1063	901	174	1010	1014	330	1945	0	286	929	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	22.0	23.8	28.6	21.1	21.1	25.9	10.0	0.0	30.4	17.6	17.6
Incr Delay (d2), s/veh	4.9	0.0	2.1	3.9	0.0	0.0	9.4	0.1	0.0	14.1	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.6	0.6	0.1	0.1	3.0	1.1	0.0	0.1	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	22.0	25.9	32.5	21.2	21.2	35.3	10.1	0.0	44.5	19.6	19.5
LnGrp LOS	C	C	C	C	C	C	D	B	A	D	B	B
Approach Vol, veh/h		147			54			534			806	
Approach Delay, s/veh		27.0			29.1			19.1			19.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	34.0	7.5	15.0	12.8	26.3	6.4	16.1				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	11.4	32.2	6.0	35.0				
Max Q Clear Time (g_c+I1), s	2.2	5.6	3.3	6.4	8.4	13.6	2.7	2.2				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.6	0.1	6.7	0.0	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	12	12	534	12	12	891
Future Vol, veh/h	12	12	534	12	12	891
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	13	587	13	13	979

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1111	301	0	0	601	0
Stage 1	595	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	203	695	-	-	972	-
Stage 1	514	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	197	694	-	-	971	-
Mov Cap-2 Maneuver	397	-	-	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	548	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	505	971
HCM Lane V/C Ratio	-	-	0.052	0.014
HCM Control Delay (s)	-	-	12.5	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/06/2021

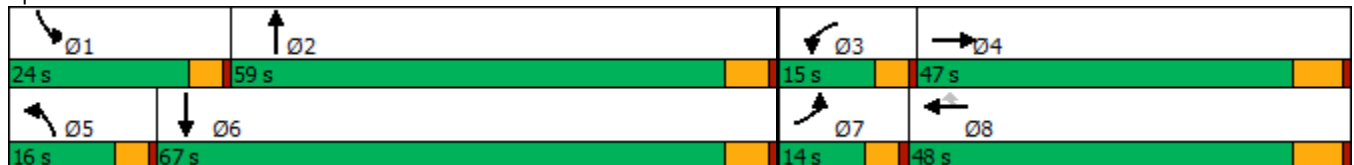


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↕↕↕	↔↔	↕↕↕	↔	↔	↕↕	↔	↕↕
Traffic Volume (vph)	156	886	248	1234	111	285	998	550	1395
Future Volume (vph)	156	886	248	1234	111	285	998	550	1395
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	14.0	47.0	15.0	48.0	48.0	16.0	59.0	24.0	67.0
Total Split (%)	9.7%	32.4%	10.3%	33.1%	33.1%	11.0%	40.7%	16.6%	46.2%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↔		↔↔	↑↑↑	↔	↔	↑↔		↔	↑↔	
Traffic Volume (veh/h)	156	886	311	248	1234	111	285	998	255	550	1395	123
Future Volume (veh/h)	156	886	311	248	1234	111	285	998	255	550	1395	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.94	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	1018	357	285	1418	128	328	1147	293	632	1603	141
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	1000	350	248	1461	427	140	1012	255	238	1390	121
Arrive On Green	0.06	0.28	0.28	0.07	0.29	0.29	0.08	0.37	0.37	0.13	0.42	0.42
Sat Flow, veh/h	3456	3581	1255	3456	5106	1494	1781	2759	694	1781	3293	286
Grp Volume(v), veh/h	179	968	407	285	1418	128	328	732	708	632	856	888
Grp Sat Flow(s),veh/h/ln	1728	1702	1432	1728	1702	1494	1781	1777	1676	1781	1777	1802
Q Serve(g_s), s	7.4	40.5	40.5	10.4	39.8	9.7	11.4	53.2	53.2	19.4	61.2	61.2
Cycle Q Clear(g_c), s	7.4	40.5	40.5	10.4	39.8	9.7	11.4	53.2	53.2	19.4	61.2	61.2
Prop In Lane	1.00		0.88	1.00		1.00	1.00		0.41	1.00		0.16
Lane Grp Cap(c), veh/h	224	951	400	248	1461	427	140	652	615	238	750	761
V/C Ratio(X)	0.80	1.02	1.02	1.15	0.97	0.30	2.34	1.12	1.15	2.65	1.14	1.17
Avail Cap(c_a), veh/h	224	951	400	248	1461	427	140	652	615	238	750	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	52.3	52.3	67.3	51.1	40.4	66.8	45.9	45.9	62.8	41.9	41.9
Incr Delay (d2), s/veh	18.2	33.7	49.8	103.7	17.1	0.8	625.6	74.3	85.6	755.3	79.1	89.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	21.2	19.6	8.1	18.8	3.6	29.4	36.0	35.9	58.6	42.1	44.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.1	86.0	102.0	171.0	68.2	41.2	692.4	120.2	131.5	818.1	121.0	131.3
LnGrp LOS	F	F	F	F	E	D	F	F	F	F	F	F
Approach Vol, veh/h		1554			1831			1768			2376	
Approach Delay, s/veh		90.1			82.3			230.9			310.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	59.0	15.0	47.0	16.0	67.0	14.0	48.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	19.4	53.2	10.4	40.5	11.4	61.2	9.4	41.5				
Max Q Clear Time (g_c+I1), s	21.4	55.2	12.4	42.5	13.4	63.2	9.4	41.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

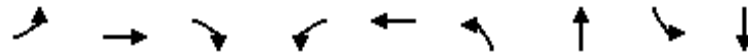
HCM 6th Ctrl Delay	190.7
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)  
12/06/2021

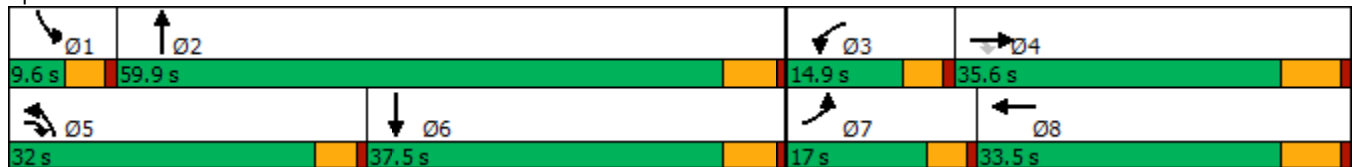


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↖↖	↑↑	↖↖	↑↑
Traffic Volume (vph)	242	247	587	196	434	492	236	16	425
Future Volume (vph)	242	247	587	196	434	492	236	16	425
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	17.0	35.6	32.0	14.9	33.5	32.0	59.9	9.6	37.5
Total Split (%)	14.2%	29.7%	26.7%	12.4%	27.9%	26.7%	49.9%	8.0%	31.3%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 92.2  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated































Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	242	247	587	196	434	17	492	236	39	16	425	156
Future Volume (veh/h)	242	247	587	196	434	17	492	236	39	16	425	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	249	255	472	202	447	11	507	243	26	16	438	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	992	719	281	939	23	605	1194	126	64	593	152
Arrive On Green	0.10	0.28	0.28	0.08	0.26	0.26	0.18	0.37	0.37	0.02	0.21	0.21
Sat Flow, veh/h	3456	3554	1582	3456	3544	87	3456	3241	343	3456	2800	716
Grp Volume(v), veh/h	249	255	472	202	224	234	507	132	137	16	277	274
Grp Sat Flow(s),veh/h/ln	1728	1777	1582	1728	1777	1855	1728	1777	1808	1728	1777	1739
Q Serve(g_s), s	6.0	4.7	19.7	4.9	9.0	9.0	12.1	4.3	4.4	0.4	12.4	12.6
Cycle Q Clear(g_c), s	6.0	4.7	19.7	4.9	9.0	9.0	12.1	4.3	4.4	0.4	12.4	12.6
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.19	1.00		0.41
Lane Grp Cap(c), veh/h	330	992	719	281	471	491	605	654	666	64	376	368
V/C Ratio(X)	0.75	0.26	0.66	0.72	0.48	0.48	0.84	0.20	0.21	0.25	0.74	0.74
Avail Cap(c_a), veh/h	504	1216	819	419	564	589	1113	1130	1150	203	662	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	23.8	18.1	38.1	26.3	26.3	33.9	18.3	18.4	41.2	31.3	31.4
Incr Delay (d2), s/veh	1.3	0.1	1.6	1.3	0.7	0.7	1.2	0.2	0.2	0.8	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.8	6.4	2.0	3.6	3.7	4.8	1.6	1.7	0.2	5.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	23.9	19.6	39.4	27.0	27.0	35.1	18.5	18.5	41.9	34.1	34.4
LnGrp LOS	D	C	B	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		976			660			776			567	
Approach Delay, s/veh		25.7			30.8			29.4			34.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	37.1	11.5	30.2	19.5	23.8	12.7	29.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	54.1	10.3	29.1	27.4	31.7	12.4	27.0				
Max Q Clear Time (g_c+I1), s	2.4	6.4	6.9	21.7	14.1	14.6	8.0	11.0				
Green Ext Time (p_c), s	0.0	1.5	0.1	1.9	0.8	2.8	0.2	2.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				29.4								
HCM 6th LOS				C								

Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

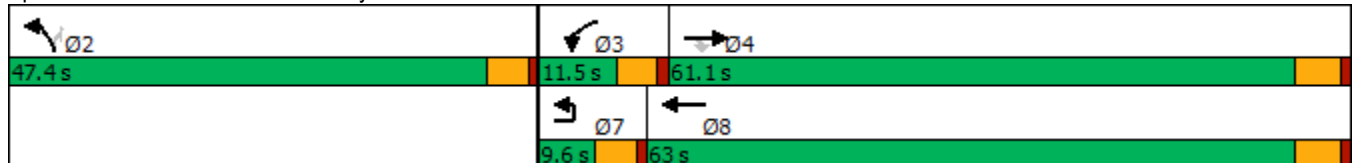


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↵	↑	↵	↵	
Traffic Volume (vph)	896	246	40	807	385	109	
Future Volume (vph)	896	246	40	807	385	109	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	61.1	61.1	11.5	63.0	47.4	47.4	9.6
Total Split (%)	50.9%	50.9%	9.6%	52.5%	39.5%	39.5%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 84.3  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.





HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↱
Traffic Volume (veh/h)	0	896	246	40	807	385	109
Future Volume (veh/h)	0	896	246	40	807	385	109
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		943	150	42	849	405	96
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1495	667	76	1022	495	440
Arrive On Green		0.42	0.42	0.04	0.55	0.28	0.28
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		943	150	42	849	405	96
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		11.6	3.4	1.3	21.0	11.8	2.6
Cycle Q Clear(g_c), s		11.6	3.4	1.3	21.0	11.8	2.6
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1495	667	76	1022	495	440
V/C Ratio(X)		0.63	0.23	0.55	0.83	0.82	0.22
Avail Cap(c_a), veh/h		3577	1595	221	1946	1367	1216
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		12.7	10.3	26.1	10.5	18.8	15.4
Incr Delay (d2), s/veh		0.4	0.2	2.3	1.8	3.4	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		3.9	1.0	0.6	6.6	4.8	0.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		13.2	10.5	28.4	12.3	22.2	15.7
LnGrp LOS		B	B	C	B	C	B
Approach Vol, veh/h		1093			891	501	
Approach Delay, s/veh		12.8			13.1	20.9	
Approach LOS		B			B	C	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		20.2	7.0	28.5			35.5
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 43	6.9	56.0			57.9
Max Q Clear Time (g_c+I1), s		13.8	3.3	13.6			23.0
Green Ext Time (p_c), s		1.6	0.0	8.7			7.4

Intersection Summary

HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

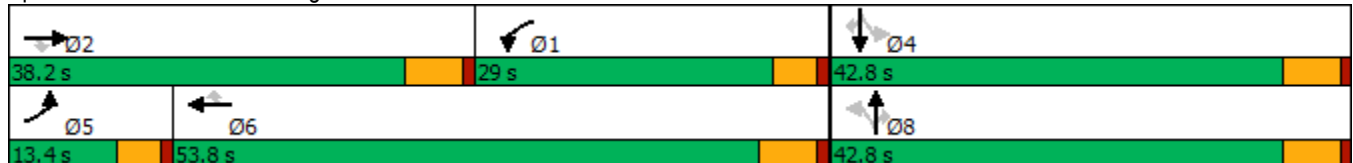
12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	994	91	392	834	109	79	77	353	131	55	29
Future Volume (vph)	50	994	91	392	834	109	79	77	353	131	55	29
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	34.8	34.8	42.8	42.8	42.8	11.8	11.8	11.8
Total Split (s)	13.4	38.2	38.2	29.0	53.8	53.8	42.8	42.8	42.8	42.8	42.8	42.8
Total Split (%)	12.2%	34.7%	34.7%	26.4%	48.9%	48.9%	38.9%	38.9%	38.9%	38.9%	38.9%	38.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 91.3  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	994	91	392	834	109	79	77	353	131	55	29
Future Volume (veh/h)	50	994	91	392	834	109	79	77	353	131	55	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	1057	76	417	887	82	84	82	217	139	59	28
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	1234	535	454	2012	877	308	370	308	256	370	309
Arrive On Green	0.05	0.35	0.35	0.25	0.57	0.57	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3554	1541	1781	3554	1550	1310	1870	1555	1076	1870	1564
Grp Volume(v), veh/h	53	1057	76	417	887	82	84	82	217	139	59	28
Grp Sat Flow(s),veh/h/ln	1781	1777	1541	1781	1777	1550	1310	1870	1555	1076	1870	1564
Q Serve(g_s), s	2.5	24.0	2.9	19.8	12.6	2.1	4.9	3.2	11.3	10.8	2.3	1.3
Cycle Q Clear(g_c), s	2.5	24.0	2.9	19.8	12.6	2.1	7.2	3.2	11.3	14.0	2.3	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	1234	535	454	2012	877	308	370	308	256	370	309
V/C Ratio(X)	0.60	0.86	0.14	0.92	0.44	0.09	0.27	0.22	0.71	0.54	0.16	0.09
Avail Cap(c_a), veh/h	180	1323	574	499	2012	877	606	795	661	501	795	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	26.4	19.5	31.5	10.9	8.6	31.9	29.3	32.5	35.2	28.9	28.5
Incr Delay (d2), s/veh	6.3	5.7	0.2	21.0	0.2	0.1	0.6	0.4	3.7	2.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	10.2	1.0	10.5	4.1	0.6	1.6	1.5	4.5	2.9	1.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	32.1	19.7	52.5	11.1	8.7	32.5	29.7	36.2	37.4	29.2	28.7
LnGrp LOS	D	C	B	D	B	A	C	C	D	D	C	C
Approach Vol, veh/h		1186			1386			383			226	
Approach Delay, s/veh		32.0			23.4			34.0			34.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.0	36.0		23.0	8.9	55.1		23.0				
Change Period (Y+Rc), s	5.8	* 5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	24.4	* 32		37.0	8.8	48.0		37.0				
Max Q Clear Time (g_c+I1), s	21.8	26.0		16.0	4.5	14.6		13.3				
Green Ext Time (p_c), s	0.4	4.2		1.2	0.0	9.7		1.9				

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
3: California Oaks St. & Clinton Keith Rd.

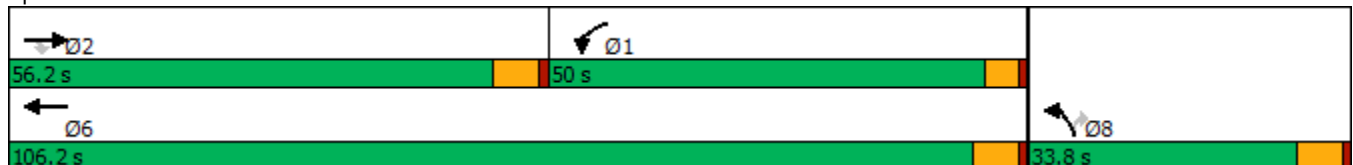


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1290	163	612	1138	156	692
Future Volume (vph)	1290	163	612	1138	156	692
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	32.8	32.8	10.6	15.8	33.8	33.8
Total Split (s)	56.2	56.2	50.0	106.2	33.8	33.8
Total Split (%)	40.1%	40.1%	35.7%	75.9%	24.1%	24.1%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 130.3  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (veh/h)	1290	163	612	1138	156	692
Future Volume (veh/h)	1290	163	612	1138	156	692
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1418	146	673	1251	171	634
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1268	553	573	2557	353	629
Arrive On Green	0.36	0.36	0.32	0.72	0.20	0.20
Sat Flow, veh/h	3647	1550	1781	3647	1781	3170
Grp Volume(v), veh/h	1418	146	673	1251	171	634
Grp Sat Flow(s),veh/h/ln	1777	1550	1781	1777	1781	1585
Q Serve(g_s), s	50.4	9.4	45.4	21.5	12.0	28.0
Cycle Q Clear(g_c), s	50.4	9.4	45.4	21.5	12.0	28.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1268	553	573	2557	353	629
V/C Ratio(X)	1.12	0.26	1.18	0.49	0.48	1.01
Avail Cap(c_a), veh/h	1268	553	573	2557	353	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	32.2	47.9	8.6	50.2	56.6
Incr Delay (d2), s/veh	64.2	0.3	96.1	0.2	1.6	38.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.7	3.5	34.7	7.3	5.5	14.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	109.6	32.6	144.0	8.8	51.8	94.6
LnGrp LOS	F	C	F	A	D	F
Approach Vol, veh/h	1564			1924	805	
Approach Delay, s/veh	102.4			56.1	85.5	
Approach LOS	F			E	F	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	51.2	56.2			107.4	33.8
Change Period (Y+Rc), s	5.8	* 5.8			5.8	5.8
Max Green Setting (Gmax), s	45.4	* 50			100.4	28.0
Max Q Clear Time (g_c+I1), s	47.4	52.4			23.5	30.0
Green Ext Time (p_c), s	0.0	0.0			17.4	0.0

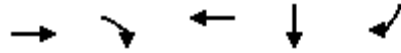
Intersection Summary

HCM 6th Ctrl Delay	78.5
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

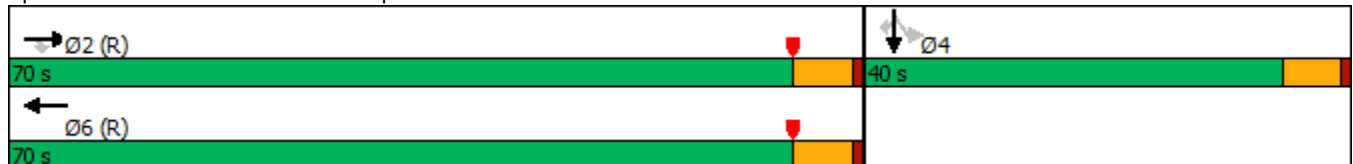


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	1619	516	1281	1	655
Future Volume (vph)	1619	516	1281	1	655
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	1619	516	0	1281	472	0	0	0	335	1	655
Future Volume (veh/h)	0	1619	516	0	1281	472	0	0	0	335	1	655
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1686	538	0	1334	492				349	1	682
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3183	972	0	2282	835				482	1	757
Arrive On Green	0.00	0.62	0.62	0.00	1.00	1.00				0.27	0.27	0.27
Sat Flow, veh/h	0	5274	1560	0	3830	1339				1776	5	2790
Grp Volume(v), veh/h	0	1686	538	0	1239	587				350	0	682
Grp Sat Flow(s),veh/h/ln	0	1702	1560	0	1702	1596				1782	0	1395
Q Serve(g_s), s	0.0	20.4	21.8	0.0	0.0	0.0				19.6	0.0	25.9
Cycle Q Clear(g_c), s	0.0	20.4	21.8	0.0	0.0	0.0				19.6	0.0	25.9
Prop In Lane	0.00		1.00	0.00		0.84				1.00		1.00
Lane Grp Cap(c), veh/h	0	3183	972	0	2122	995				483	0	757
V/C Ratio(X)	0.00	0.53	0.55	0.00	0.58	0.59				0.72	0.00	0.90
Avail Cap(c_a), veh/h	0	3183	972	0	2122	995				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.58	0.58				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.6	11.9	0.0	0.0	0.0				36.4	0.0	38.7
Incr Delay (d2), s/veh	0.0	0.6	2.3	0.0	0.7	1.5				3.1	0.0	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.9	7.1	0.0	0.2	0.4				8.8	0.0	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.3	14.2	0.0	0.7	1.5				39.4	0.0	49.3
LnGrp LOS	A	B	B	A	A	A				D	A	D
Approach Vol, veh/h		2224			1826						1032	
Approach Delay, s/veh		12.7			0.9						46.0	
Approach LOS		B			A						D	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		74.4		35.6		74.4						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		64.2		34.2		64.2						
Max Q Clear Time (g_c+I1), s		23.8		27.9		2.0						
Green Ext Time (p_c), s		12.1		1.9		11.3						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

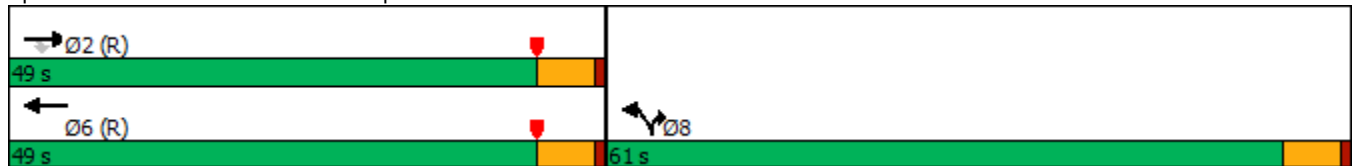


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑
Traffic Volume (vph)	1270	684	982	771	825
Future Volume (vph)	1270	684	982	771	825
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	43.8	43.8	22.0	22.0	22.0
Total Split (s)	49.0	49.0	49.0	61.0	61.0
Total Split (%)	44.5%	44.5%	44.5%	55.5%	55.5%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.





HCM 6th Signalized Intersection Summary  
 5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗		↑↑↑	↖	↗
Traffic Volume (veh/h)	1270	684	0	982	771	825
Future Volume (veh/h)	1270	684	0	982	771	825
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1337	0	0	1034	838	840
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2005		0	2005	894	795
Arrive On Green	0.79	0.00	0.00	0.39	0.50	0.50
Sat Flow, veh/h	5274	1585	0	5443	1781	1585
Grp Volume(v), veh/h	1337	0	0	1034	838	840
Grp Sat Flow(s),veh/h/ln	1702	1585	0	1702	1781	1585
Q Serve(g_s), s	13.0	0.0	0.0	17.0	48.7	55.2
Cycle Q Clear(g_c), s	13.0	0.0	0.0	17.0	48.7	55.2
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2005		0	2005	894	795
V/C Ratio(X)	0.67		0.00	0.52	0.94	1.06
Avail Cap(c_a), veh/h	2005		0	2005	894	795
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.00	0.00	0.55	1.00	1.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	25.4	25.8	27.4
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.5	16.7	47.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	6.6	23.3	29.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.0	0.0	0.0	26.0	42.5	75.2
LnGrp LOS	B		A	C	D	F
Approach Vol, veh/h	1337	A		1034	1678	
Approach Delay, s/veh	10.0			26.0	58.9	
Approach LOS	B			C	E	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		49.0			49.0	61.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		43.2			43.2	55.2
Max Q Clear Time (g_c+I1), s		15.0			19.0	57.2
Green Ext Time (p_c), s		6.6			4.6	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.  
 Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

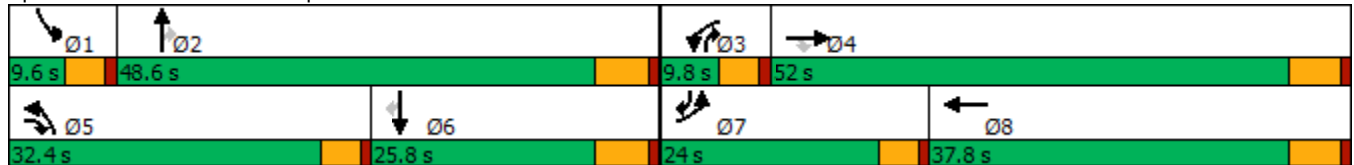
12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	305	751	314	94	765	415	203	113	59	120	293	
Future Volume (vph)	305	751	314	94	765	415	203	113	59	120	293	
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	
Protected Phases	7	4	5	3	8	5	2	3	1	6	7	
Permitted Phases			4					2			6	
Detector Phase	7	4	5	3	8	5	2	3	1	6	7	
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6	
Total Split (s)	24.0	52.0	32.4	9.8	37.8	32.4	48.6	9.8	9.6	25.8	24.0	
Total Split (%)	20.0%	43.3%	27.0%	8.2%	31.5%	27.0%	40.5%	8.2%	8.0%	21.5%	20.0%	
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 83.6  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated
































Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

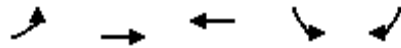
12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	  		 	 			 	
Traffic Volume (veh/h)	305	751	314	94	765	63	415	203	113	59	120	293
Future Volume (veh/h)	305	751	314	94	765	63	415	203	113	59	120	293
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	311	766	203	96	781	54	423	207	67	60	122	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1102	739	211	1216	84	542	983	529	88	317	462
Arrive On Green	0.12	0.31	0.31	0.06	0.25	0.25	0.16	0.28	0.28	0.05	0.17	0.17
Sat Flow, veh/h	3456	3554	1582	3456	4878	336	3456	3554	1562	1781	1870	1585
Grp Volume(v), veh/h	311	766	203	96	544	291	423	207	67	60	122	240
Grp Sat Flow(s),veh/h/ln	1728	1777	1582	1728	1702	1810	1728	1777	1562	1781	1870	1585
Q Serve(g_s), s	6.0	13.0	5.4	1.8	9.8	9.9	8.1	3.1	2.0	2.3	4.0	8.7
Cycle Q Clear(g_c), s	6.0	13.0	5.4	1.8	9.8	9.9	8.1	3.1	2.0	2.3	4.0	8.7
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	1102	739	211	848	451	542	983	529	88	317	462
V/C Ratio(X)	0.74	0.70	0.27	0.45	0.64	0.65	0.78	0.21	0.13	0.68	0.39	0.52
Avail Cap(c_a), veh/h	975	2388	1312	261	1584	842	1397	2212	1069	130	544	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	20.9	11.2	31.2	23.1	23.1	27.8	19.1	15.7	32.1	25.4	20.3
Incr Delay (d2), s/veh	1.0	0.8	0.2	0.6	0.8	1.6	0.9	0.1	0.1	3.4	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.8	1.6	0.7	3.6	3.9	3.1	1.1	0.6	1.0	1.7	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	21.7	11.4	31.7	23.9	24.6	28.8	19.2	15.9	35.5	26.1	21.3
LnGrp LOS	C	C	B	C	C	C	C	B	B	D	C	C
Approach Vol, veh/h		1280			931			697			422	
Approach Delay, s/veh		22.1			24.9			24.7			24.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	24.8	8.8	27.1	15.4	17.4	13.0	22.9				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	5.0	42.8	5.2	46.2	27.8	20.0	19.4	32.0				
Max Q Clear Time (g_c+I1), s	4.3	5.1	3.8	15.0	10.1	10.7	8.0	11.9				
Green Ext Time (p_c), s	0.0	1.4	0.0	6.1	0.7	1.0	0.4	4.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				23.8								
HCM 6th LOS				C								

Timings

8: Baxter Rd. & Warm Springs Rd.

12/06/2021



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↕	↕↔	↖	↗
Traffic Volume (vph)	2	157	87	12	19
Future Volume (vph)	2	157	87	12	19
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	6.0	10.0	10.0	6.0	6.0
Minimum Split (s)	10.6	15.8	38.8	25.6	25.6
Total Split (s)	10.6	49.4	38.8	25.6	25.6
Total Split (%)	14.1%	65.9%	51.7%	34.1%	34.1%
Yellow Time (s)	3.6	4.8	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	4.6
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min	None	None

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 32.9

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Baxter Rd. & Warm Springs Rd.



HCM 6th Signalized Intersection Summary  
 8: Baxter Rd. & Warm Springs Rd.

Discovery Village (JN:14073)

12/06/2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↑↑	↑↗		↙	↘	
Traffic Volume (veh/h)	2	157	87	0	12	19	
Future Volume (veh/h)	2	157	87	0	12	19	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	2	171	95	0	13	6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	7	2089	1319	0	53	47	
Arrive On Green	0.00	0.59	0.37	0.00	0.03	0.03	
Sat Flow, veh/h	1781	3647	3741	0	1781	1585	
Grp Volume(v), veh/h	2	171	95	0	13	6	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	0	1781	1585	
Q Serve(g_s), s	0.0	0.6	0.5	0.0	0.2	0.1	
Cycle Q Clear(g_c), s	0.0	0.6	0.5	0.0	0.2	0.1	
Prop In Lane	1.00			0.00	1.00	1.00	
Lane Grp Cap(c), veh/h	7	2089	1319	0	53	47	
V/C Ratio(X)	0.31	0.08	0.07	0.00	0.25	0.13	
Avail Cap(c_a), veh/h	393	5701	4315	0	1376	1225	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	13.5	2.4	5.5	0.0	12.9	12.8	
Incr Delay (d2), s/veh	24.2	0.0	0.0	0.0	2.4	1.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.0	0.1	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	37.7	2.5	5.6	0.0	15.3	14.1	
LnGrp LOS	D	A	A	A	B	B	
Approach Vol, veh/h		173	95		19		
Approach Delay, s/veh		2.9	5.6		14.9		
Approach LOS		A	A		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				21.8	5.4	5.9	15.9
Change Period (Y+Rc), s				5.8	4.6	5.8	* 5.8
Max Green Setting (Gmax), s				43.6	21.0	6.0	* 33
Max Q Clear Time (g_c+I1), s				2.6	2.2	2.0	2.5
Green Ext Time (p_c), s				1.6	0.0	0.0	0.7

Intersection Summary

HCM 6th Ctrl Delay	4.6
HCM 6th LOS	A

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
17: Menifee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

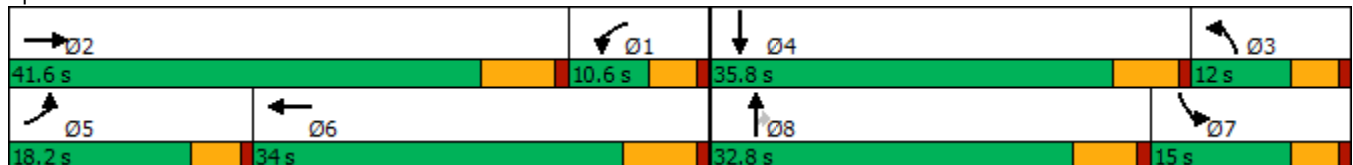


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	220	851	76	782	131	256	153	84	127
Future Volume (vph)	220	851	76	782	131	256	153	84	127
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	18.2	41.6	10.6	34.0	12.0	32.8	32.8	15.0	35.8
Total Split (%)	18.2%	41.6%	10.6%	34.0%	12.0%	32.8%	32.8%	15.0%	35.8%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 92.9  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated























Splits and Phases: 17: Menifee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

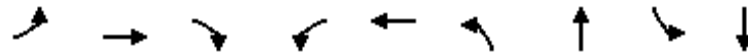
Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	851	181	76	782	120	131	256	153	84	127	107
Future Volume (veh/h)	220	851	181	76	782	120	131	256	153	84	127	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	868	174	78	798	116	134	261	97	86	130	90
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	1154	231	108	1023	149	159	367	307	122	180	125
Arrive On Green	0.15	0.39	0.39	0.06	0.33	0.33	0.09	0.20	0.20	0.07	0.18	0.18
Sat Flow, veh/h	1781	2942	590	1781	3113	453	1781	1870	1564	1781	1029	712
Grp Volume(v), veh/h	224	524	518	78	455	459	134	261	97	86	0	220
Grp Sat Flow(s),veh/h/ln	1781	1777	1755	1781	1777	1789	1781	1870	1564	1781	0	1741
Q Serve(g_s), s	10.2	21.1	21.1	3.6	19.2	19.2	6.1	10.8	4.4	3.9	0.0	9.9
Cycle Q Clear(g_c), s	10.2	21.1	21.1	3.6	19.2	19.2	6.1	10.8	4.4	3.9	0.0	9.9
Prop In Lane	1.00		0.34	1.00		0.25	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	262	697	688	108	584	588	159	367	307	122	0	305
V/C Ratio(X)	0.86	0.75	0.75	0.72	0.78	0.78	0.84	0.71	0.32	0.70	0.00	0.72
Avail Cap(c_a), veh/h	293	753	744	129	590	594	159	610	510	224	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	21.7	21.7	38.2	25.1	25.1	37.1	31.1	28.5	37.7	0.0	32.2
Incr Delay (d2), s/veh	19.7	7.3	7.4	14.9	9.9	9.9	31.4	9.4	2.2	7.2	0.0	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	8.8	8.8	1.9	8.6	8.7	3.9	5.5	1.7	1.8	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	29.0	29.1	53.1	35.0	35.0	68.5	40.5	30.8	44.9	0.0	43.8
LnGrp LOS	D	C	C	D	D	C	E	D	C	D	A	D
Approach Vol, veh/h		1266			992			492				306
Approach Delay, s/veh		33.5			36.4			46.2				44.1
Approach LOS		C			D			D				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	39.0	12.0	20.3	16.8	33.7	10.3	22.0				
Change Period (Y+Rc), s	6.5	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	6.0	* 35	7.4	30.0	13.6	27.5	10.4	27.0				
Max Q Clear Time (g_c+I1), s	5.6	23.1	8.1	11.9	12.2	21.2	5.9	12.8				
Green Ext Time (p_c), s	0.0	9.4	0.0	2.5	0.1	4.9	0.1	3.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				37.6								
HCM 6th LOS				D								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/06/2021

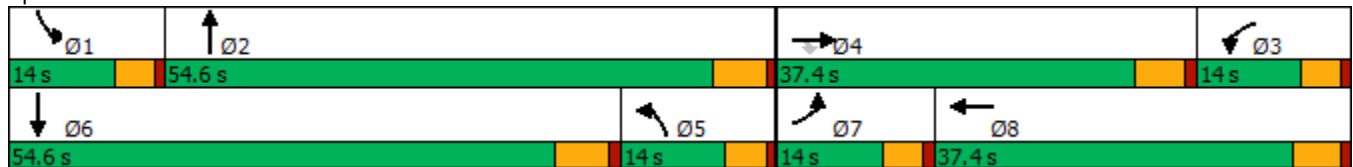


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑	↗	↘	↕	↘	↕	↘	↕
Traffic Volume (vph)	38	10	43	19	9	50	526	12	247
Future Volume (vph)	38	10	43	19	9	50	526	12	247
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 43.3  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.





HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↕		↖	↕		↖	↕	
Traffic Volume (veh/h)	38	10	43	19	9	5	50	526	34	12	247	21
Future Volume (veh/h)	38	10	43	19	9	5	50	526	34	12	247	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	11	25	21	10	2	54	572	35	13	268	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	278	232	54	423	82	303	1284	78	35	686	48
Arrive On Green	0.05	0.15	0.15	0.03	0.14	0.14	0.17	0.38	0.38	0.02	0.20	0.20
Sat Flow, veh/h	1781	1870	1557	1781	2960	571	1781	3397	207	1781	3367	237
Grp Volume(v), veh/h	41	11	25	21	6	6	54	299	308	13	141	146
Grp Sat Flow(s),veh/h/ln	1781	1870	1557	1781	1777	1754	1781	1777	1827	1781	1777	1828
Q Serve(g_s), s	1.1	0.3	0.7	0.6	0.1	0.2	1.3	6.3	6.3	0.4	3.4	3.5
Cycle Q Clear(g_c), s	1.1	0.3	0.7	0.6	0.1	0.2	1.3	6.3	6.3	0.4	3.4	3.5
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.11	1.00		0.13
Lane Grp Cap(c), veh/h	93	278	232	54	254	251	303	672	691	35	362	372
V/C Ratio(X)	0.44	0.04	0.11	0.39	0.02	0.02	0.18	0.44	0.45	0.37	0.39	0.39
Avail Cap(c_a), veh/h	334	1194	994	334	1134	1120	334	1730	1779	334	1730	1780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	18.3	18.5	23.8	18.5	18.5	17.8	11.7	11.7	24.3	17.3	17.3
Incr Delay (d2), s/veh	3.3	0.3	0.9	4.5	0.2	0.2	0.3	1.8	1.7	6.3	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.3	0.3	0.1	0.1	0.5	2.2	2.2	0.2	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	18.5	19.4	28.3	18.6	18.7	18.1	13.4	13.4	30.5	19.9	19.9
LnGrp LOS	C	B	B	C	B	B	B	B	B	C	B	B
Approach Vol, veh/h		77			33			661			300	
Approach Delay, s/veh		23.0			24.8			13.8			20.3	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.6	24.8	6.9	12.9	14.3	16.0	7.2	12.6				
Change Period (Y+Rc), s	4.6	5.8	5.4	* 5.4	5.8	* 5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	* 32	9.4	* 49	9.4	32.0				
Max Q Clear Time (g_c+I1), s	2.4	8.3	2.6	2.7	3.3	5.5	3.1	2.2				
Green Ext Time (p_c), s	0.0	10.5	0.0	0.3	0.0	4.4	0.0	0.1				

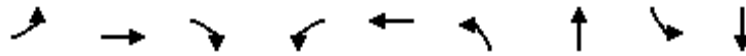
Intersection Summary

HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
19: Whitewood Rd. & Baxter Rd.

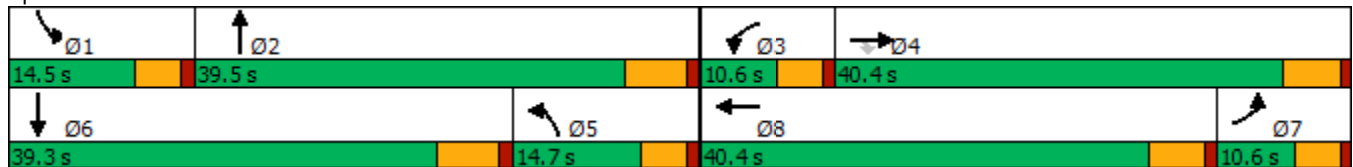


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↑	↘	↙	↑↓	↙	↑↓	↙	↑↓
Traffic Volume (vph)	19	8	121	34	2	108	811	10	470
Future Volume (vph)	19	8	121	34	2	108	811	10	470
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	14.7	39.5	14.5	39.3
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	14.0%	37.6%	13.8%	37.4%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 105  
 Actuated Cycle Length: 54.5  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷		↶	↷		↶	↷	↷
Traffic Volume (veh/h)	19	8	121	34	2	6	108	811	35	10	470	7
Future Volume (veh/h)	19	8	121	34	2	6	108	811	35	10	470	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	8	49	35	2	6	112	845	32	10	490	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	333	278	81	320	282	232	1349	51	28	899	11
Arrive On Green	0.03	0.18	0.18	0.05	0.18	0.18	0.13	0.39	0.39	0.02	0.25	0.25
Sat Flow, veh/h	1781	1870	1557	1781	1777	1567	1781	3487	132	1781	3594	44
Grp Volume(v), veh/h	20	8	49	35	2	6	112	431	446	10	242	254
Grp Sat Flow(s),veh/h/ln	1781	1870	1557	1781	1777	1567	1781	1777	1842	1781	1777	1862
Q Serve(g_s), s	0.6	0.2	0.9	1.0	0.1	0.2	3.2	10.7	10.7	0.3	6.5	6.5
Cycle Q Clear(g_c), s	0.6	0.2	0.9	1.0	0.1	0.2	3.2	10.7	10.7	0.3	6.5	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	51	333	278	81	320	282	232	687	713	28	444	466
V/C Ratio(X)	0.39	0.02	0.18	0.43	0.01	0.02	0.48	0.63	0.63	0.36	0.54	0.55
Avail Cap(c_a), veh/h	196	1200	999	196	1140	1006	330	1098	1138	323	1092	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	18.5	6.7	25.4	18.3	18.4	22.0	13.5	13.5	26.6	17.8	17.8
Incr Delay (d2), s/veh	4.8	0.0	0.4	3.6	0.0	0.0	1.6	1.5	1.4	7.8	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.5	0.5	0.0	0.1	1.2	3.5	3.7	0.2	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	18.5	7.1	29.0	18.4	18.4	23.6	15.0	15.0	34.4	19.4	19.3
LnGrp LOS	C	B	A	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		77			43			989			506	
Approach Delay, s/veh		14.4			27.0			16.0			19.7	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	26.9	7.1	15.1	12.9	19.4	7.0	15.2				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	5.8	* 5.8	5.4	* 5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	10.1	* 34	6.0	* 35				
Max Q Clear Time (g_c+I1), s	2.3	12.7	3.0	2.9	5.2	8.5	2.6	2.2				
Green Ext Time (p_c), s	0.0	7.9	0.0	0.2	0.1	4.3	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	12	12	951	12	12	625
Future Vol, veh/h	12	12	951	12	12	625
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	13	1001	13	13	658

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1364	508	0	0	1015
Stage 1	1009	-	-	-	-
Stage 2	355	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	139	510	-	-	679
Stage 1	313	-	-	-	-
Stage 2	681	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	135	510	-	-	678
Mov Cap-2 Maneuver	284	-	-	-	-
Stage 1	313	-	-	-	-
Stage 2	661	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.6	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	365	678
HCM Lane V/C Ratio	-	-	0.069	0.019
HCM Control Delay (s)	-	-	15.6	10.4
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

12/06/2021

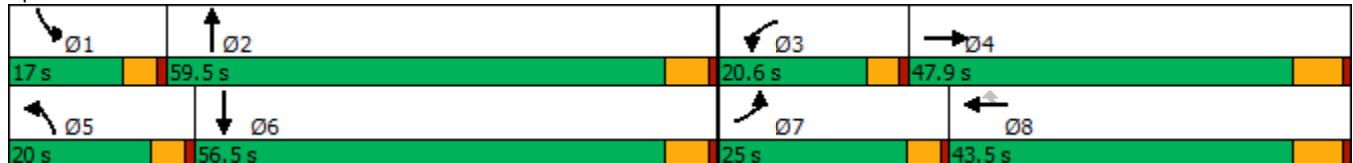


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↕↕↔	↔↔	↕↕↕	↔	↔	↕↔	↔	↕↔
Traffic Volume (vph)	640	898	327	585	109	231	999	184	642
Future Volume (vph)	640	898	327	585	109	231	999	184	642
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	25.0	47.9	20.6	43.5	43.5	20.0	59.5	17.0	56.5
Total Split (%)	17.2%	33.0%	14.2%	30.0%	30.0%	13.8%	41.0%	11.7%	39.0%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↘		↖↗	↑↑↑	↖	↖	↑↘		↖	↑↘	
Traffic Volume (veh/h)	640	898	323	327	585	109	231	999	242	184	642	340
Future Volume (veh/h)	640	898	323	327	585	109	231	999	242	184	642	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	727	1020	332	372	665	106	262	1135	95	209	730	381
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	489	1088	354	383	1302	402	190	1224	102	153	784	408
Arrive On Green	0.14	0.29	0.29	0.11	0.26	0.26	0.11	0.37	0.37	0.09	0.35	0.35
Sat Flow, veh/h	3456	3810	1239	3456	5106	1578	1781	3320	278	1781	2253	1174
Grp Volume(v), veh/h	727	911	441	372	665	106	262	607	623	209	575	536
Grp Sat Flow(s),veh/h/ln	1728	1702	1646	1728	1702	1578	1781	1777	1820	1781	1777	1649
Q Serve(g_s), s	20.4	37.7	37.7	15.5	16.1	7.7	15.4	47.3	47.4	12.4	45.1	45.2
Cycle Q Clear(g_c), s	20.4	37.7	37.7	15.5	16.1	7.7	15.4	47.3	47.4	12.4	45.1	45.2
Prop In Lane	1.00		0.75	1.00		1.00	1.00		0.15	1.00		0.71
Lane Grp Cap(c), veh/h	489	972	470	383	1302	402	190	655	671	153	618	574
V/C Ratio(X)	1.49	0.94	0.94	0.97	0.51	0.26	1.38	0.93	0.93	1.37	0.93	0.93
Avail Cap(c_a), veh/h	489	977	472	383	1309	405	190	661	677	153	624	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.9	50.3	50.3	63.9	46.0	42.9	64.4	43.7	43.7	65.9	45.4	45.4
Incr Delay (d2), s/veh	230.3	16.3	27.3	38.2	0.7	0.7	199.6	20.7	20.6	200.4	22.3	23.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.4	17.8	18.7	8.7	6.8	3.1	17.4	23.8	24.4	14.1	23.0	21.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	292.2	66.6	77.6	102.1	46.7	43.7	264.0	64.4	64.3	266.4	67.7	69.3
LnGrp LOS	F	E	E	F	D	D	F	E	E	F	E	E
Approach Vol, veh/h		2079			1143			1492			1320	
Approach Delay, s/veh		147.8			64.4			99.4			99.8	
Approach LOS		F			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	59.0	20.6	47.7	20.0	56.0	25.0	43.3				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	12.4	53.7	16.0	41.4	15.4	50.7	20.4	37.0				
Max Q Clear Time (g_c+I1), s	14.4	49.4	17.5	39.7	17.4	47.2	22.4	18.1				
Green Ext Time (p_c), s	0.0	3.8	0.0	1.5	0.0	3.0	0.0	7.7				

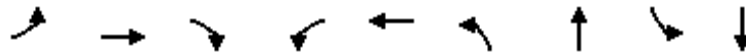
Intersection Summary

HCM 6th Ctrl Delay	109.6
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
24: Max Gilliss Blvd & Leon Rd.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖↗	↑↑	↖↗	↑↑
Traffic Volume (vph)	123	423	703	143	280	660	322	6	210
Future Volume (vph)	123	423	703	143	280	660	322	6	210
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	11.4	33.5	39.4	11.4	33.5	39.4	65.5	9.6	35.7
Total Split (%)	9.5%	27.9%	32.8%	9.5%	27.9%	32.8%	54.6%	8.0%	29.8%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 79.1  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated























Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	423	703	143	280	12	660	322	68	6	210	105
Future Volume (veh/h)	123	423	703	143	280	12	660	322	68	6	210	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	441	557	149	292	6	688	335	46	6	219	62
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	1081	850	226	1104	23	801	1102	150	27	348	96
Arrive On Green	0.06	0.30	0.30	0.07	0.31	0.31	0.23	0.35	0.35	0.01	0.13	0.13
Sat Flow, veh/h	3456	3554	1585	3456	3561	73	3456	3142	428	3456	2750	760
Grp Volume(v), veh/h	128	441	557	149	145	153	688	188	193	6	140	141
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1857	1728	1777	1793	1728	1777	1734
Q Serve(g_s), s	2.9	7.8	19.9	3.3	4.9	4.9	15.1	6.1	6.2	0.1	5.9	6.1
Cycle Q Clear(g_c), s	2.9	7.8	19.9	3.3	4.9	4.9	15.1	6.1	6.2	0.1	5.9	6.1
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.24	1.00		0.44
Lane Grp Cap(c), veh/h	206	1081	850	226	551	576	801	623	629	27	225	219
V/C Ratio(X)	0.62	0.41	0.66	0.66	0.26	0.27	0.86	0.30	0.31	0.22	0.62	0.64
Avail Cap(c_a), veh/h	297	1214	909	297	607	635	1522	1343	1355	219	672	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	21.8	13.1	36.1	20.5	20.5	29.1	18.6	18.7	39.0	32.7	32.8
Incr Delay (d2), s/veh	1.2	0.2	1.6	1.3	0.3	0.2	1.1	0.3	0.3	1.5	2.8	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.9	5.9	1.3	1.8	1.9	5.8	2.3	2.4	0.1	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	22.1	14.7	37.3	20.7	20.7	30.2	18.9	18.9	40.5	35.5	36.0
LnGrp LOS	D	C	B	D	C	C	C	B	B	D	D	D
Approach Vol, veh/h		1126			447			1069			287	
Approach Delay, s/veh		20.2			26.3			26.2			35.8	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	33.5	9.8	30.5	22.9	15.8	9.3	31.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	59.7	6.8	27.0	34.8	29.9	6.8	27.0				
Max Q Clear Time (g_c+I1), s	2.1	8.2	5.3	21.9	17.1	8.1	4.9	6.9				
Green Ext Time (p_c), s	0.0	2.1	0.0	2.2	1.2	1.4	0.0	1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				24.8								
HCM 6th LOS				C								



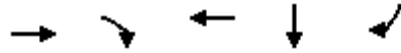
**APPENDIX 3.3:**

**EXISTING (2021) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS**

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Queues

3: I-215 SB Ramps & Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1680	604	1573	352	455
v/c Ratio	0.51	0.49	0.50	0.80	0.51
Control Delay	11.7	2.4	7.8	52.5	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	2.4	7.8	52.5	15.6
Queue Length 50th (ft)	208	0	78	235	63
Queue Length 95th (ft)	310	47	136	307	103
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	3310	1225	3172	557	1056
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.49	0.50	0.63	0.43

Intersection Summary

Queues

4: I-215 NB Ramps & Clinton Keith Rd.



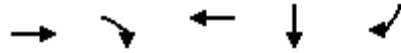
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1200	872	1288	595	559
v/c Ratio	0.47	0.71	0.51	0.86	0.91
Control Delay	20.1	11.3	20.2	41.6	48.3
Queue Delay	0.0	0.3	0.0	0.0	0.0
Total Delay	20.1	11.7	20.2	41.6	48.3
Queue Length 50th (ft)	248	259	223	347	351
Queue Length 95th (ft)	306	529	287	474	#501
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	2610	1236	2610	739	660
Starvation Cap Reductn	0	72	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.75	0.49	0.81	0.85

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Queues

3: I-215 SB Ramps & Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1686	538	1826	350	682
v/c Ratio	0.53	0.46	0.60	0.72	0.82
Control Delay	13.4	2.4	10.8	44.3	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	2.4	10.8	44.3	40.9
Queue Length 50th (ft)	229	0	154	224	226
Queue Length 95th (ft)	326	47	m213	295	275
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	3191	1174	3100	563	946
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.53	0.46	0.59	0.62	0.72

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

4: I-215 NB Ramps & Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1337	720	1034	899	781
v/c Ratio	0.74	0.71	0.57	0.94	0.96
Control Delay	30.2	10.2	29.8	44.1	48.4
Queue Delay	0.0	0.4	0.0	0.0	0.0
Total Delay	30.2	10.6	29.8	44.1	48.4
Queue Length 50th (ft)	320	210	213	569	526
Queue Length 95th (ft)	240	411	243	#916	#869
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	1997	1042	1997	952	817
Starvation Cap Reductn	0	69	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.67	0.74	0.52	0.94	0.96

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**APPENDIX 3.4:**

**EXISTING (2021) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS**

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### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2021) Conditions - Weekday PM Peak Hour**

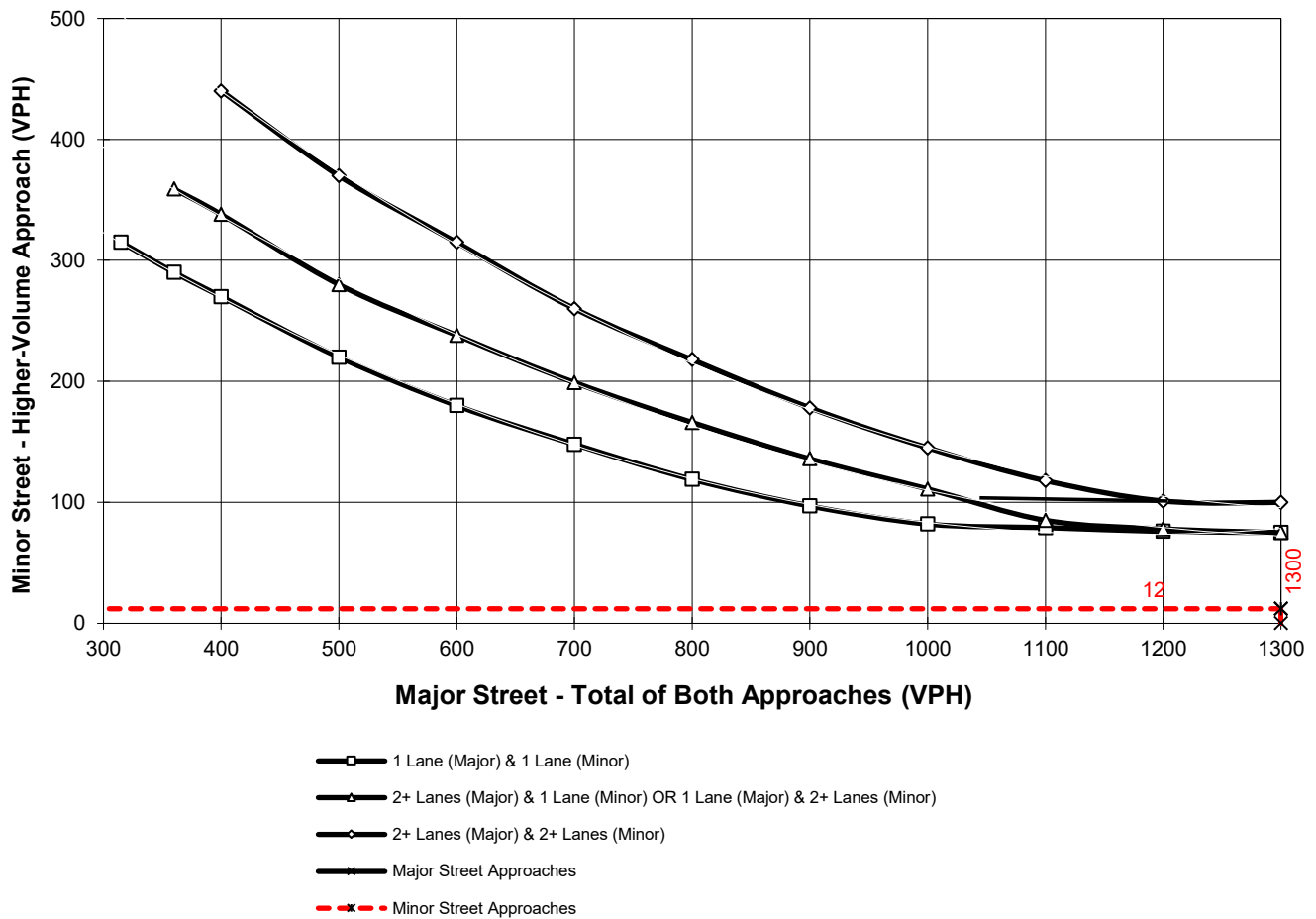
Major Street Name = **Whitewood Road**

Total of Both Approaches (VPH) = **1600**  
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Running Rabbit Road**

High Volume Approach (VPH) = **12**  
 Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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**APPENDIX 4.1:**  
**POST PROCESSING WORKSHEETS**

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Inland Valley Dr. & Clinton Keith Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	253	153	-100	-40%	427	382	-45	-11%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	33	26	-7	-20%	111	118	7	6%
	<b>NB Total</b>	<b>286</b>	<b>179</b>	<b>-107</b>	<b>-37%</b>	<b>539</b>	<b>500</b>	<b>-39</b>	<b>-7%</b>
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>SB Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	583	1,094	511	88%	891	1,567	676	76%
	Right	467	420	-47	-10%	338	203	-135	-40%
	<b>EB Total</b>	<b>1,051</b>	<b>1,514</b>	<b>463</b>	<b>44%</b>	<b>1,229</b>	<b>1,770</b>	<b>541</b>	<b>44%</b>
WEST BOUND	Left	108	120	12	11%	37	28	-9	-24%
	Through	780	1,357	577	74%	672	1,263	591	88%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>WB Total</b>	<b>888</b>	<b>1,477</b>	<b>589</b>	<b>66%</b>	<b>709</b>	<b>1,291</b>	<b>582</b>	<b>82%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>2,225</b>	<b>3,170</b>	<b>945.38</b>	<b>42%</b>	<b>2,477</b>	<b>3,561</b>	<b>1084</b>	<b>44%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
<b>North Leg</b>	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>-</b>
South Leg	Inbound	179	500			
South Leg	Outbound	540	231			
<b>South Leg</b>	<b>TOTAL</b>	<b>719</b>	<b>731</b>	<b>18%</b>	<b>19%</b>	<b>3,898</b>
East Leg	Inbound	1,477	1,291			
East Leg	Outbound	1,120	1,685			
<b>East Leg</b>	<b>TOTAL</b>	<b>2,597</b>	<b>2,976</b>	<b>7%</b>	<b>8%</b>	<b>36,651</b>
West Leg	Inbound	1,514	1,770			
West Leg	Outbound	1,510	1,645			
<b>West Leg</b>	<b>TOTAL</b>	<b>3,024</b>	<b>3,415</b>	<b>9%</b>	<b>10%</b>	<b>35,356</b>
<b>OVERALL TOTAL</b>		<b>6,340</b>	<b>7,122</b>	<b>8%</b>	<b>9%</b>	<b>75,905</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Nutmeg St. & Clinton Keith Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	117	154	37	32%	79	132	53	67%
	Through	81	111	30	37%	77	105	28	36%
	Right	316	579	263	83%	353	536	183	52%
	<b>NB Total</b>	<b>514</b>	<b>844</b>	<b>330</b>	<b>64%</b>	<b>509</b>	<b>773</b>	<b>264</b>	<b>52%</b>
SOUTH BOUND	Left	117	190	73	62%	131	147	16	12%
	Through	61	62	1	2%	55	78	23	42%
	Right	54	63	9	17%	29	36	7	24%
	<b>SB Total</b>	<b>232</b>	<b>315</b>	<b>83</b>	<b>36%</b>	<b>215</b>	<b>261</b>	<b>46</b>	<b>21%</b>
EAST BOUND	Left	30	34	4	13%	50	64	14	28%
	Through	759	1,141	382	50%	994	1,417	423	43%
	Right	127	119	-8	-6%	91	163	72	79%
	<b>EB Total</b>	<b>916</b>	<b>1,294</b>	<b>378</b>	<b>41%</b>	<b>1,135</b>	<b>1,644</b>	<b>509</b>	<b>45%</b>
WEST BOUND	Left	354	409	55	16%	392	659	267	68%
	Through	1,065	1,413	348	33%	834	1,223	389	47%
	Right	77	106	29	38%	109	131	22	20%
	<b>WB Total</b>	<b>1,496</b>	<b>1,928</b>	<b>432</b>	<b>29%</b>	<b>1,335</b>	<b>2,013</b>	<b>678</b>	<b>51%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>3,158</b>	<b>4,381</b>	<b>1223</b>	<b>39%</b>	<b>3,194</b>	<b>4,691</b>	<b>1497</b>	<b>47%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	315	261			
North Leg	Outbound	251	300			
<b>North Leg</b>	<b>TOTAL</b>	<b>566</b>	<b>561</b>	<b>5%</b>	<b>5%</b>	<b>12,360</b>
South Leg	Inbound	844	773			
South Leg	Outbound	590	900			
<b>South Leg</b>	<b>TOTAL</b>	<b>1,434</b>	<b>1,673</b>	<b>6%</b>	<b>7%</b>	<b>23,948</b>
East Leg	Inbound	1,928	2,013			
East Leg	Outbound	1,910	2,100			
<b>East Leg</b>	<b>TOTAL</b>	<b>3,838</b>	<b>4,113</b>	<b>7%</b>	<b>7%</b>	<b>55,310</b>
West Leg	Inbound	1,294	1,644			
West Leg	Outbound	1,630	1,391			
<b>West Leg</b>	<b>TOTAL</b>	<b>2,924</b>	<b>3,035</b>	<b>9%</b>	<b>9%</b>	<b>32,606</b>
<b>OVERALL TOTAL</b>		<b>8,762</b>	<b>9,382</b>	<b>7%</b>	<b>8%</b>	<b>124,223</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: California Oaks Rd. & Clinton Keith Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFFERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFFERENCE	% CHANGE
NORTH BOUND	Left	118	235	117	99%	156	162	6	4%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	359	612	253	70%	692	985	293	42%
	<b>NB Total</b>	<b>477</b>	<b>847</b>	<b>370</b>	<b>78%</b>	<b>848</b>	<b>1,147</b>	<b>299</b>	<b>35%</b>
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>SB Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,162	1,868	706	61%	1,290	1,893	603	47%
	Right	139	238	99	71%	163	193	30	18%
	<b>EB Total</b>	<b>1,301</b>	<b>2,106</b>	<b>805</b>	<b>62%</b>	<b>1,453</b>	<b>2,086</b>	<b>633</b>	<b>44%</b>
WEST BOUND	Left	568	632	64	11%	612	1,064	452	74%
	Through	1,271	1,555	284	22%	1,138	1,793	655	58%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>WB Total</b>	<b>1,839</b>	<b>2,187</b>	<b>348</b>	<b>19%</b>	<b>1,750</b>	<b>2,857</b>	<b>1,107</b>	<b>63%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>3,617</b>	<b>5,140</b>	<b>1523</b>	<b>42%</b>	<b>4,051</b>	<b>6,090</b>	<b>2039</b>	<b>50%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
<b>North Leg</b>	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>-</b>
South Leg	Inbound	847	1,147			
South Leg	Outbound	870	1,257			
<b>South Leg</b>	<b>TOTAL</b>	<b>1,717</b>	<b>2,404</b>	<b>6%</b>	<b>8%</b>	<b>28,951</b>
East Leg	Inbound	2,187	2,857			
East Leg	Outbound	2,480	2,878			
<b>East Leg</b>	<b>TOTAL</b>	<b>4,667</b>	<b>5,735</b>	<b>7%</b>	<b>9%</b>	<b>64,060</b>
West Leg	Inbound	2,106	2,086			
West Leg	Outbound	1,790	1,955			
<b>West Leg</b>	<b>TOTAL</b>	<b>3,896</b>	<b>4,041</b>	<b>7%</b>	<b>7%</b>	<b>54,548</b>
<b>OVERALL TOTAL</b>		<b>10,280</b>	<b>12,180</b>	<b>7%</b>	<b>8%</b>	<b>147,559</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: I-215 SB Ramps & Clinton Keith Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>NB Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>
SOUTH BOUND	Left	327	321	-6	-2%	335	328	-7	-2%
	Through	4	4	0	0%	1	1	0	0%
	Right	428	500	72	17%	655	751	96	15%
	<b>SB Total</b>	<b>759</b>	<b>825</b>	<b>66</b>	<b>9%</b>	<b>991</b>	<b>1,080</b>	<b>89</b>	<b>9%</b>
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,579	2,259	680	43%	1,619	2,175	556	34%
	Right	568	856	288	51%	516	799	283	55%
	<b>EB Total</b>	<b>2,147</b>	<b>3,115</b>	<b>968</b>	<b>45%</b>	<b>2,135</b>	<b>2,974</b>	<b>839</b>	<b>39%</b>
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	830	1,280	450	54%	1,281	2,228	947	74%
	Right	649	650	1	0%	472	578	106	22%
	<b>WB Total</b>	<b>1,479</b>	<b>1,930</b>	<b>451</b>	<b>30%</b>	<b>1,753</b>	<b>2,806</b>	<b>1,053</b>	<b>60%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>4,385</b>	<b>5,870</b>	<b>1485</b>	<b>34%</b>	<b>4,879</b>	<b>6,860</b>	<b>1981</b>	<b>41%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	825	1,080			
North Leg	Outbound	650	578			
<b>North Leg</b>	<b>TOTAL</b>	<b>1,475</b>	<b>1,658</b>	<b>8%</b>	<b>9%</b>	<b>19,428</b>
South Leg	Inbound	0	0			
South Leg	Outbound	860	800			
<b>South Leg</b>	<b>TOTAL</b>	<b>860</b>	<b>800</b>	<b>10%</b>	<b>9%</b>	<b>8,967</b>
East Leg	Inbound	1,930	2,806			
East Leg	Outbound	2,580	2,503			
<b>East Leg</b>	<b>TOTAL</b>	<b>4,510</b>	<b>5,309</b>	<b>7%</b>	<b>9%</b>	<b>60,937</b>
West Leg	Inbound	3,115	2,974			
West Leg	Outbound	1,780	2,979			
<b>West Leg</b>	<b>TOTAL</b>	<b>4,895</b>	<b>5,953</b>	<b>6%</b>	<b>8%</b>	<b>76,363</b>
<b>OVERALL TOTAL</b>		<b>11,740</b>	<b>13,720</b>	<b>7%</b>	<b>8%</b>	<b>165,696</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: I-215 NB Ramps & Clinton Keith Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	294	461	167	57%	771	1,099	328	43%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	767	1,027	260	34%	825	703	-122	-15%
	<b>NB Total</b>	<b>1,061</b>	<b>1,488</b>	<b>427</b>	<b>40%</b>	<b>1,596</b>	<b>1,802</b>	<b>206</b>	<b>13%</b>
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>SB Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,104	1,662	558	51%	1,270	1,767	497	39%
	Right	802	903	101	13%	684	720	36	5%
	<b>EB Total</b>	<b>1,906</b>	<b>2,565</b>	<b>659</b>	<b>35%</b>	<b>1,954</b>	<b>2,487</b>	<b>533</b>	<b>27%</b>
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,185	1,465	280	24%	982	1,701	719	73%
	Right	335	361	26	8%	134	160	26	19%
	<b>WB Total</b>	<b>1,520</b>	<b>1,826</b>	<b>306</b>	<b>20%</b>	<b>1,116</b>	<b>1,861</b>	<b>745</b>	<b>67%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>4,487</b>	<b>5,879</b>	<b>1392</b>	<b>31%</b>	<b>4,666</b>	<b>6,150</b>	<b>1484</b>	<b>32%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	0	0			
North Leg	Outbound	361	160			
<b>North Leg</b>	<b>TOTAL</b>	<b>361</b>	<b>160</b>	<b>5%</b>	<b>2%</b>	<b>6,583</b>
South Leg	Inbound	1,488	1,802			
South Leg	Outbound	903	720			
<b>South Leg</b>	<b>TOTAL</b>	<b>2,391</b>	<b>2,522</b>	<b>11%</b>	<b>11%</b>	<b>22,622</b>
East Leg	Inbound	1,826	1,861			
East Leg	Outbound	2,689	2,470			
<b>East Leg</b>	<b>TOTAL</b>	<b>4,515</b>	<b>4,331</b>	<b>8%</b>	<b>7%</b>	<b>59,194</b>
West Leg	Inbound	2,565	2,487			
West Leg	Outbound	1,926	2,800			
<b>West Leg</b>	<b>TOTAL</b>	<b>4,491</b>	<b>5,287</b>	<b>7%</b>	<b>9%</b>	<b>60,937</b>
<b>OVERALL TOTAL</b>		<b>11,758</b>	<b>12,300</b>	<b>8%</b>	<b>8%</b>	<b>149,337</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Antelope Rd. & Scott Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	256	177	-79	-31%	415	324	-91	-22%
	Through	146	162	16	11%	203	320	117	58%
	Right	66	102	36	55%	113	116	3	3%
	<b>NB Total</b>	<b>468</b>	<b>441</b>	<b>-27</b>	<b>-6%</b>	<b>731</b>	<b>760</b>	<b>29</b>	<b>4%</b>
SOUTH BOUND	Left	65	198	133	205%	59	105	46	78%
	Through	170	401	231	136%	120	150	30	25%
	Right	390	531	141	36%	293	395	102	35%
	<b>SB Total</b>	<b>625</b>	<b>1,130</b>	<b>505</b>	<b>81%</b>	<b>472</b>	<b>650</b>	<b>178</b>	<b>38%</b>
EAST BOUND	Left	222	231	9	4%	305	657	352	115%
	Through	622	900	278	45%	751	1,055	304	40%
	Right	331	371	40	12%	314	311	-3	-1%
	<b>EB Total</b>	<b>1,175</b>	<b>1,502</b>	<b>327</b>	<b>28%</b>	<b>1,370</b>	<b>2,023</b>	<b>653</b>	<b>48%</b>
WEST BOUND	Left	116	169	53	46%	94	101	7	7%
	Through	755	637	-118	-16%	765	889	124	16%
	Right	54	73	19	35%	63	148	85	135%
	<b>WB Total</b>	<b>925</b>	<b>879</b>	<b>-46</b>	<b>-5%</b>	<b>922</b>	<b>1,138</b>	<b>216</b>	<b>23%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>3,193</b>	<b>3,952</b>	<b>759</b>	<b>24%</b>	<b>3,495</b>	<b>4,571</b>	<b>1076</b>	<b>31%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	1,130	650			
North Leg	Outbound	466	1,125			
<b>North Leg</b>	<b>TOTAL</b>	<b>1,596</b>	<b>1,775</b>	<b>12%</b>	<b>13%</b>	<b>13,838</b>
South Leg	Inbound	441	760			
South Leg	Outbound	941	562			
<b>South Leg</b>	<b>TOTAL</b>	<b>1,382</b>	<b>1,322</b>	<b>18%</b>	<b>17%</b>	<b>7,609</b>
East Leg	Inbound	879	1,138			
East Leg	Outbound	1,200	1,276			
<b>East Leg</b>	<b>TOTAL</b>	<b>2,079</b>	<b>2,414</b>	<b>10%</b>	<b>11%</b>	<b>21,262</b>
West Leg	Inbound	1,502	2,023			
West Leg	Outbound	1,345	1,608			
<b>West Leg</b>	<b>TOTAL</b>	<b>2,847</b>	<b>3,631</b>	<b>10%</b>	<b>12%</b>	<b>29,175</b>
<b>OVERALL TOTAL</b>		<b>7,904</b>	<b>9,142</b>	<b>11%</b>	<b>13%</b>	<b>71,884</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Warm Springs Rd. & Baxter Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>NB Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>
SOUTH BOUND	Left	5	7	2	40%	12	9	-3	-25%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	10	13	3	30%	19	25	6	32%
	<b>SB Total</b>	<b>15</b>	<b>20</b>	<b>5</b>	<b>33%</b>	<b>31</b>	<b>34</b>	<b>3</b>	<b>10%</b>
EAST BOUND	Left	7	5	-2	-29%	2	0	-2	-100%
	Through	127	363	236	186%	157	961	804	512%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	<b>EB Total</b>	<b>134</b>	<b>368</b>	<b>234</b>	<b>175%</b>	<b>159</b>	<b>961</b>	<b>802</b>	<b>504%</b>
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	212	1,257	1,045	493%	87	435	348	400%
	Right	10	15	5	50%	0	0	0	#DIV/0!
	<b>WB Total</b>	<b>222</b>	<b>1,272</b>	<b>1,050</b>	<b>473%</b>	<b>87</b>	<b>435</b>	<b>348</b>	<b>400%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>371</b>	<b>1,660</b>	<b>1289</b>	<b>347%</b>	<b>277</b>	<b>1,430</b>	<b>1153</b>	<b>416%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	20	34			
North Leg	Outbound	20	0			
<b>North Leg</b>	<b>TOTAL</b>	<b>40</b>	<b>34</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>-</b>
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
<b>South Leg</b>	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>-</b>
East Leg	Inbound	1,272	435			
East Leg	Outbound	370	970			
<b>East Leg</b>	<b>TOTAL</b>	<b>1,642</b>	<b>1,405</b>	<b>7%</b>	<b>6%</b>	<b>24,538</b>
West Leg	Inbound	368	961			
West Leg	Outbound	1,270	460			
<b>West Leg</b>	<b>TOTAL</b>	<b>1,638</b>	<b>1,421</b>	<b>7%</b>	<b>6%</b>	<b>24,538</b>
<b>OVERALL TOTAL</b>		<b>3,320</b>	<b>2,860</b>	<b>7%</b>	<b>6%</b>	<b>49,077</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Menifee Rd. & Scott Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	136	129	-7	-5%	131	173	42	32%
	Through	180	185	5	3%	256	476	220	86%
	Right	200	206	6	3%	153	240	87	57%
	<b>NB Total</b>	<b>516</b>	<b>520</b>	<b>4</b>	<b>1%</b>	<b>540</b>	<b>889</b>	<b>349</b>	<b>65%</b>
SOUTH BOUND	Left	152	175	23	15%	84	107	23	27%
	Through	284	499	215	76%	127	178	51	40%
	Right	127	135	8	6%	107	115	8	7%
	<b>SB Total</b>	<b>563</b>	<b>809</b>	<b>246</b>	<b>44%</b>	<b>318</b>	<b>400</b>	<b>82</b>	<b>26%</b>
EAST BOUND	Left	78	89	11	14%	220	304	84	38%
	Through	692	792	100	14%	851	993	142	17%
	Right	91	159	68	75%	181	233	52	29%
	<b>EB Total</b>	<b>861</b>	<b>1,040</b>	<b>179</b>	<b>21%</b>	<b>1,252</b>	<b>1,530</b>	<b>278</b>	<b>22%</b>
WEST BOUND	Left	205	275	70	34%	76	88	12	16%
	Through	847	688	-159	-19%	782	692	-90	-12%
	Right	122	107	-15	-12%	120	149	29	24%
	<b>WB Total</b>	<b>1,174</b>	<b>1,070</b>	<b>-104</b>	<b>-9%</b>	<b>978</b>	<b>929</b>	<b>-49</b>	<b>-5%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>3,114</b>	<b>3,439</b>	<b>325</b>	<b>10%</b>	<b>3,088</b>	<b>3,748</b>	<b>660</b>	<b>21%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	809	400			
North Leg	Outbound	381	929			
<b>North Leg</b>	<b>TOTAL</b>	<b>1,190</b>	<b>1,329</b>	<b>8%</b>	<b>9%</b>	<b>14,790</b>
South Leg	Inbound	520	889			
South Leg	Outbound	933	499			
<b>South Leg</b>	<b>TOTAL</b>	<b>1,453</b>	<b>1,388</b>	<b>9%</b>	<b>8%</b>	<b>16,861</b>
East Leg	Inbound	1,070	929			
East Leg	Outbound	1,173	1,340			
<b>East Leg</b>	<b>TOTAL</b>	<b>2,243</b>	<b>2,269</b>	<b>19%</b>	<b>20%</b>	<b>11,562</b>
West Leg	Inbound	1,040	1,530			
West Leg	Outbound	952	980			
<b>West Leg</b>	<b>TOTAL</b>	<b>1,992</b>	<b>2,510</b>	<b>14%</b>	<b>18%</b>	<b>13,889</b>
<b>OVERALL TOTAL</b>		<b>6,878</b>	<b>7,496</b>	<b>12%</b>	<b>13%</b>	<b>57,102</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Menifee Rd. & Keller Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	15	38	23	153%	50	117	67	134%
	Through	251	170	-81	-32%	526	672	146	28%
	Right	9	72	63	700%	34	171	137	403%
	<b>NB Total</b>	<b>275</b>	<b>280</b>	<b>5</b>	<b>2%</b>	<b>610</b>	<b>960</b>	<b>350</b>	<b>57%</b>
SOUTH BOUND	Left	6	57	51	850%	12	88	76	633%
	Through	560	701	141	25%	247	176	-71	-29%
	Right	51	152	101	198%	21	71	50	238%
	<b>SB Total</b>	<b>617</b>	<b>910</b>	<b>293</b>	<b>47%</b>	<b>280</b>	<b>335</b>	<b>55</b>	<b>20%</b>
EAST BOUND	Left	57	43	-14	-25%	38	107	69	182%
	Through	16	144	128	800%	10	111	101	1010%
	Right	36	43	7	19%	43	47	4	9%
	<b>EB Total</b>	<b>109</b>	<b>230</b>	<b>121</b>	<b>111%</b>	<b>91</b>	<b>265</b>	<b>174</b>	<b>191%</b>
WEST BOUND	Left	21	195	174	829%	19	147	128	674%
	Through	16	355	339	2119%	9	332	323	3589%
	Right	20	119	99	495%	5	101	96	1920%
	<b>WB Total</b>	<b>57</b>	<b>669</b>	<b>612</b>	<b>1074%</b>	<b>33</b>	<b>580</b>	<b>547</b>	<b>1658%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>1,058</b>	<b>2,089</b>	<b>1031</b>	<b>97%</b>	<b>1,014</b>	<b>2,140</b>	<b>1126</b>	<b>111%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	910	335			
North Leg	Outbound	332	880			
<b>North Leg</b>	<b>TOTAL</b>	<b>1,242</b>	<b>1,215</b>	<b>8%</b>	<b>8%</b>	<b>15,309</b>
South Leg	Inbound	280	960			
South Leg	Outbound	939	370			
<b>South Leg</b>	<b>TOTAL</b>	<b>1,219</b>	<b>1,330</b>	<b>6%</b>	<b>7%</b>	<b>18,765</b>
East Leg	Inbound	669	580			
East Leg	Outbound	273	370			
<b>East Leg</b>	<b>TOTAL</b>	<b>942</b>	<b>950</b>	<b>6%</b>	<b>6%</b>	<b>14,874</b>
West Leg	Inbound	230	265			
West Leg	Outbound	545	520			
<b>West Leg</b>	<b>TOTAL</b>	<b>775</b>	<b>785</b>	<b>5%</b>	<b>5%</b>	<b>14,431</b>
<b>OVERALL TOTAL</b>		<b>4,178</b>	<b>4,280</b>	<b>7%</b>	<b>7%</b>	<b>63,378</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Whitewood Rd. & Baxter Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	182	269	87	48%	108	345	237	219%
	Through	330	133	-197	-60%	811	666	-145	-18%
	Right	22	4	-18	-82%	35	4	-31	-89%
	<b>NB Total</b>	<b>534</b>	<b>406</b>	<b>-128</b>	<b>-24%</b>	<b>954</b>	<b>1,015</b>	<b>61</b>	<b>6%</b>
SOUTH BOUND	Left	5	13	8	160%	10	13	3	30%
	Through	747	577	-170	-23%	470	324	-146	-31%
	Right	26	616	590	2269%	7	244	237	3386%
	<b>SB Total</b>	<b>778</b>	<b>1,206</b>	<b>428</b>	<b>55%</b>	<b>487</b>	<b>581</b>	<b>94</b>	<b>19%</b>
EAST BOUND	Left	20	222	202	1010%	19	528	509	2679%
	Through	3	13	10	333%	8	33	25	313%
	Right	120	159	39	33%	121	259	138	114%
	<b>EB Total</b>	<b>143</b>	<b>394</b>	<b>251</b>	<b>176%</b>	<b>148</b>	<b>820</b>	<b>672</b>	<b>454%</b>
WEST BOUND	Left	36	4	-32	-89%	34	7	-27	-79%
	Through	13	45	32	246%	2	20	18	900%
	Right	5	5	0	0%	6	16	10	167%
	<b>WB Total</b>	<b>54</b>	<b>54</b>	<b>0</b>	<b>0%</b>	<b>42</b>	<b>43</b>	<b>1</b>	<b>2%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>1,509</b>	<b>2,060</b>	<b>551</b>	<b>37%</b>	<b>1,631</b>	<b>2,459</b>	<b>828</b>	<b>51%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	1,206	581			
North Leg	Outbound	360	1,210			
<b>North Leg</b>	<b>TOTAL</b>	<b>1,566</b>	<b>1,791</b>	<b>9%</b>	<b>11%</b>	<b>16,695</b>
South Leg	Inbound	406	1,015			
South Leg	Outbound	740	590			
<b>South Leg</b>	<b>TOTAL</b>	<b>1,146</b>	<b>1,605</b>	<b>9%</b>	<b>12%</b>	<b>13,407</b>
East Leg	Inbound	54	43			
East Leg	Outbound	30	50			
<b>East Leg</b>	<b>TOTAL</b>	<b>84</b>	<b>93</b>	<b>14%</b>	<b>15%</b>	<b>610</b>
West Leg	Inbound	394	820			
West Leg	Outbound	930	609			
<b>West Leg</b>	<b>TOTAL</b>	<b>1,324</b>	<b>1,429</b>	<b>7%</b>	<b>8%</b>	<b>18,328</b>
<b>OVERALL TOTAL</b>		<b>4,120</b>	<b>4,918</b>	<b>8%</b>	<b>10%</b>	<b>49,040</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Whitewood Rd. & Clinton Keith Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	285	203	-82	-29%	231	246	15	6%
	Through	998	1,091	93	9%	999	1,202	203	20%
	Right	255	488	233	91%	242	473	231	95%
	<b>NB Total</b>	<b>1,538</b>	<b>1,782</b>	<b>244</b>	<b>16%</b>	<b>1,472</b>	<b>1,921</b>	<b>449</b>	<b>31%</b>
SOUTH BOUND	Left	550	620	70	13%	184	312	128	70%
	Through	1,395	1,325	-70	-5%	642	793	151	24%
	Right	123	51	-72	-59%	340	315	-25	-7%
	<b>SB Total</b>	<b>2,068</b>	<b>1,996</b>	<b>-72</b>	<b>-3%</b>	<b>1,166</b>	<b>1,420</b>	<b>254</b>	<b>22%</b>
EAST BOUND	Left	156	110	-46	-29%	640	529	-111	-17%
	Through	886	1,093	207	23%	898	1,206	308	34%
	Right	311	323	12	4%	323	316	-7	-2%
	<b>EB Total</b>	<b>1,353</b>	<b>1,526</b>	<b>173</b>	<b>13%</b>	<b>1,861</b>	<b>2,051</b>	<b>190</b>	<b>10%</b>
WEST BOUND	Left	248	591	343	138%	327	671	344	105%
	Through	1,234	1,296	62	5%	585	899	314	54%
	Right	111	179	68	61%	109	189	80	73%
	<b>WB Total</b>	<b>1,593</b>	<b>2,066</b>	<b>473</b>	<b>30%</b>	<b>1,021</b>	<b>1,759</b>	<b>738</b>	<b>72%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>6,552</b>	<b>7,370</b>	<b>818</b>	<b>12%</b>	<b>5,520</b>	<b>7,151</b>	<b>1631</b>	<b>30%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	1,996	1,420			
North Leg	Outbound	1,380	1,920			
<b>North Leg</b>	<b>TOTAL</b>	<b>3,376</b>	<b>3,340</b>	<b>19%</b>	<b>19%</b>	<b>17,873</b>
South Leg	Inbound	1,782	1,921			
South Leg	Outbound	2,239	1,780			
<b>South Leg</b>	<b>TOTAL</b>	<b>4,021</b>	<b>3,701</b>	<b>23%</b>	<b>21%</b>	<b>17,732</b>
East Leg	Inbound	2,066	1,759			
East Leg	Outbound	2,201	1,991			
<b>East Leg</b>	<b>TOTAL</b>	<b>4,267</b>	<b>3,750</b>	<b>12%</b>	<b>10%</b>	<b>35,979</b>
West Leg	Inbound	1,526	2,051			
West Leg	Outbound	1,550	1,460			
<b>West Leg</b>	<b>TOTAL</b>	<b>3,076</b>	<b>3,511</b>	<b>12%</b>	<b>14%</b>	<b>25,173</b>
<b>OVERALL TOTAL</b>		<b>14,740</b>	<b>14,302</b>	<b>15%</b>	<b>15%</b>	<b>96,757</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Briggs Rd. & Clinton Keith Rd.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	2	707	705	35250%	2	588	586	29300%
	Right	1	273	272	27200%	1	224	223	22300%
	<b>NB Total</b>	<b>4</b>	<b>980</b>	<b>976</b>	<b>24400%</b>	<b>4</b>	<b>812</b>	<b>808</b>	<b>20200%</b>
SOUTH BOUND	Left	1	877	876	87600%	1	759	758	75800%
	Through	2	602	600	30000%	2	847	845	42250%
	Right	1	0	-1	-100%	1	0	-1	-100%
	<b>SB Total</b>	<b>4</b>	<b>1,479</b>	<b>1,475</b>	<b>36875%</b>	<b>4</b>	<b>1,606</b>	<b>1,602</b>	<b>40050%</b>
EAST BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	2	0	-2	-100%	2	0	-2	-100%
	Right	1	0	-1	-100%	1	0	-1	-100%
	<b>EB Total</b>	<b>4</b>	<b>0</b>	<b>-4</b>	<b>-100%</b>	<b>4</b>	<b>0</b>	<b>-4</b>	<b>-100%</b>
WEST BOUND	Left	1	218	217	21700%	1	236	235	23500%
	Through	2	0	-2	-100%	2	0	-2	-100%
	Right	1	823	822	82200%	1	556	555	55500%
	<b>WB Total</b>	<b>4</b>	<b>1,041</b>	<b>1,037</b>	<b>25925%</b>	<b>4</b>	<b>792</b>	<b>788</b>	<b>19700%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>16</b>	<b>3,500</b>	<b>3484</b>	<b>21775%</b>	<b>16</b>	<b>3,210</b>	<b>3194</b>	<b>19963%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	1,479	1,606			
North Leg	Outbound	1,530	1,144			
<b>North Leg</b>	<b>TOTAL</b>	<b>3,009</b>	<b>2,750</b>	<b>9%</b>	<b>8%</b>	<b>32,792</b>
South Leg	Inbound	980	812			
South Leg	Outbound	820	1,083			
<b>South Leg</b>	<b>TOTAL</b>	<b>1,800</b>	<b>1,895</b>	<b>9%</b>	<b>9%</b>	<b>20,270</b>
East Leg	Inbound	1,041	792			
East Leg	Outbound	1,150	983			
<b>East Leg</b>	<b>TOTAL</b>	<b>2,191</b>	<b>1,775</b>	<b>9%</b>	<b>8%</b>	<b>23,230</b>
West Leg	Inbound	0	0			
West Leg	Outbound	0	0			
<b>West Leg</b>	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>-</b>
<b>OVERALL TOTAL</b>		<b>7,000</b>	<b>6,420</b>	<b>9%</b>	<b>8%</b>	<b>76,292</b>

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Project: Discovery Village  
 Scenario: Horizon Year (2040) Without Project

Job #: 14073  
 Analyst: RV  
 Date: 11/1/21

LOCATION: Leon Rd. & Whisper Heights Pkwy.  
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	698	697	69700%	1	393	392	39200%
	Through	2	504	502	25100%	2	448	446	22300%
	Right	1	31	30	3000%	1	38	37	3700%
	<b>NB Total</b>	<b>4</b>	<b>1,233</b>	<b>1,229</b>	<b>30725%</b>	<b>4</b>	<b>879</b>	<b>875</b>	<b>21875%</b>
SOUTH BOUND	Left	1	7	6	600%	1	17	16	1600%
	Through	2	450	448	22400%	2	639	637	31850%
	Right	1	155	154	15400%	1	174	173	17300%
	<b>SB Total</b>	<b>4</b>	<b>612</b>	<b>608</b>	<b>15200%</b>	<b>4</b>	<b>830</b>	<b>826</b>	<b>20650%</b>
EAST BOUND	Left	1	203	202	20200%	1	189	188	18800%
	Through	2	112	110	5500%	2	145	143	7150%
	Right	1	819	818	81800%	1	607	606	60600%
	<b>EB Total</b>	<b>4</b>	<b>1,134</b>	<b>1,130</b>	<b>28250%</b>	<b>4</b>	<b>941</b>	<b>937</b>	<b>23425%</b>
WEST BOUND	Left	1	51	50	5000%	1	74	73	7300%
	Through	2	157	155	7750%	2	182	180	9000%
	Right	1	13	12	1200%	1	23	22	2200%
	<b>WB Total</b>	<b>4</b>	<b>221</b>	<b>217</b>	<b>5425%</b>	<b>4</b>	<b>279</b>	<b>275</b>	<b>6875%</b>
<b>TOTAL ENTERING VOLUME</b>		<b>16</b>	<b>3,200</b>	<b>3184</b>	<b>19900%</b>	<b>16</b>	<b>2,929</b>	<b>2913</b>	<b>18206%</b>

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	612	830			
North Leg	Outbound	720	660			
<b>North Leg</b>	<b>TOTAL</b>	<b>1,332</b>	<b>1,490</b>	<b>9%</b>	<b>10%</b>	<b>14,845</b>
South Leg	Inbound	1,233	879			
South Leg	Outbound	1,320	1,320			
<b>South Leg</b>	<b>TOTAL</b>	<b>2,553</b>	<b>2,199</b>	<b>9%</b>	<b>8%</b>	<b>26,917</b>
East Leg	Inbound	221	279			
East Leg	Outbound	150	200			
<b>East Leg</b>	<b>TOTAL</b>	<b>371</b>	<b>479</b>	<b>9%</b>	<b>11%</b>	<b>4,237</b>
West Leg	Inbound	1,134	941			
West Leg	Outbound	1,010	749			
<b>West Leg</b>	<b>TOTAL</b>	<b>2,144</b>	<b>1,690</b>	<b>9%</b>	<b>7%</b>	<b>23,230</b>
<b>OVERALL TOTAL</b>		<b>6,400</b>	<b>5,858</b>	<b>9%</b>	<b>8%</b>	<b>69,229</b>

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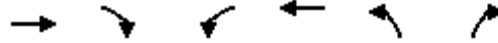
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**APPENDIX 5.1:**

**OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS INTERSECTION  
OPERATIONS ANALYSIS WORKSHEETS**

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Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

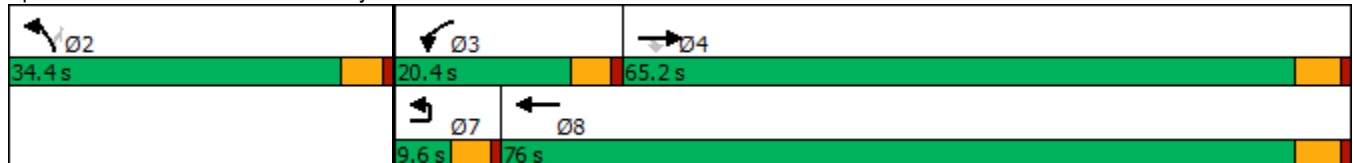


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	698	443	148	1104	304	71	
Future Volume (vph)	698	443	148	1104	304	71	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	65.2	65.2	20.4	76.0	34.4	34.4	9.6
Total Split (%)	54.3%	54.3%	17.0%	63.3%	28.7%	28.7%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 104  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↷	↷	↰	↷	↰	↷
Traffic Volume (veh/h)	0	698	443	148	1104	304	71
Future Volume (veh/h)	0	698	443	148	1104	304	71
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		727	327	154	1150	317	65
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1832	817	190	1266	369	328
Arrive On Green		0.52	0.52	0.11	0.68	0.21	0.21
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		727	327	154	1150	317	65
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		10.5	10.6	7.1	43.5	14.5	2.9
Cycle Q Clear(g_c), s		10.5	10.6	7.1	43.5	14.5	2.9
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1832	817	190	1266	369	328
V/C Ratio(X)		0.40	0.40	0.81	0.91	0.86	0.20
Avail Cap(c_a), veh/h		2533	1130	334	1572	627	558
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		12.4	12.5	36.8	11.4	32.2	27.6
Incr Delay (d2), s/veh		0.1	0.3	3.2	7.0	6.1	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		3.8	3.5	3.2	15.8	6.7	1.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		12.6	12.8	40.0	18.4	38.3	27.9
LnGrp LOS		B	B	D	B	D	C
Approach Vol, veh/h		1054			1304	382	
Approach Delay, s/veh		12.6			21.0	36.6	
Approach LOS		B			C	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		22.2	13.6	48.6			62.2
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 30	15.8	60.1			70.9
Max Q Clear Time (g_c+I1), s		16.5	9.1	12.6			45.5
Green Ext Time (p_c), s		1.0	0.1	7.3			11.5

Intersection Summary

HCM 6th Ctrl Delay	20.0
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

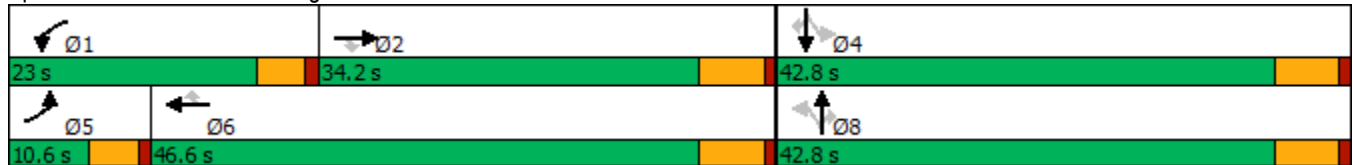
12/07/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	969	143	415	1305	87	132	91	366	132	69	61
Future Volume (vph)	34	969	143	415	1305	87	132	91	366	132	69	61
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	34.8	34.8	42.8	42.8	42.8	11.8	11.8	11.8
Total Split (s)	10.6	34.2	34.2	23.0	46.6	46.6	42.8	42.8	42.8	42.8	42.8	42.8
Total Split (%)	10.6%	34.2%	34.2%	23.0%	46.6%	46.6%	42.8%	42.8%	42.8%	42.8%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 81.6  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

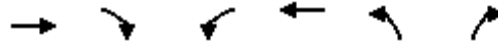
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	969	143	415	1305	87	132	91	366	132	69	61
Future Volume (veh/h)	34	969	143	415	1305	87	132	91	366	132	69	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1009	123	432	1359	66	138	95	240	138	72	59
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	1197	519	415	1880	818	335	421	347	282	421	352
Arrive On Green	0.04	0.34	0.34	0.23	0.53	0.53	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3554	1542	1781	3554	1545	1259	1870	1544	1038	1870	1563
Grp Volume(v), veh/h	35	1009	123	432	1359	66	138	95	240	138	72	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1542	1781	1777	1545	1259	1870	1544	1038	1870	1563
Q Serve(g_s), s	1.5	20.8	4.5	18.4	23.0	1.7	7.8	3.3	11.3	9.9	2.4	2.4
Cycle Q Clear(g_c), s	1.5	20.8	4.5	18.4	23.0	1.7	10.3	3.3	11.3	13.2	2.4	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	1197	519	415	1880	818	335	421	347	282	421	352
V/C Ratio(X)	0.48	0.84	0.24	1.04	0.72	0.08	0.41	0.23	0.69	0.49	0.17	0.17
Avail Cap(c_a), veh/h	135	1279	555	415	1880	818	642	877	724	535	877	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	24.2	18.9	30.3	14.2	9.1	28.8	25.0	28.1	30.4	24.7	24.6
Incr Delay (d2), s/veh	4.9	5.3	0.3	55.1	1.5	0.1	1.0	0.3	3.1	1.6	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	8.6	1.5	13.5	7.8	0.5	2.4	1.5	4.3	2.5	1.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	29.5	19.2	85.3	15.7	9.2	29.8	25.3	31.1	32.0	24.9	24.9
LnGrp LOS	D	C	B	F	B	A	C	C	C	C	C	C
Approach Vol, veh/h		1167			1857			473			269	
Approach Delay, s/veh		28.8			31.6			29.6			28.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	32.4		23.6	7.8	47.6		23.6				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	18.4	28.4		37.0	6.0	40.8		37.0				
Max Q Clear Time (g_c+I1), s	20.4	22.8		15.2	3.5	25.0		13.3				
Green Ext Time (p_c), s	0.0	3.7		1.5	0.0	10.4		2.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				30.3								
HCM 6th LOS				C								



Timings

3: California Oaks St. & Clinton Keith Rd.

12/07/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1434	157	686	1553	133	470
Future Volume (vph)	1434	157	686	1553	133	470
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	33.8	33.8	10.6	15.8	33.8	33.8
Total Split (s)	49.2	49.2	47.0	96.2	33.8	33.8
Total Split (%)	37.8%	37.8%	36.2%	74.0%	26.0%	26.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

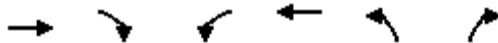
Cycle Length: 130  
 Actuated Cycle Length: 114.7  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (veh/h)	1434	157	686	1553	133	470
Future Volume (veh/h)	1434	157	686	1553	133	470
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1463	160	700	1585	136	480
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1238	550	606	2578	323	575
Arrive On Green	0.35	0.35	0.34	0.73	0.18	0.18
Sat Flow, veh/h	3647	1581	1781	3647	1781	3170
Grp Volume(v), veh/h	1463	160	700	1585	136	480
Grp Sat Flow(s),veh/h/ln	1777	1581	1781	1777	1781	1585
Q Serve(g_s), s	43.4	9.1	42.4	27.5	8.4	18.2
Cycle Q Clear(g_c), s	43.4	9.1	42.4	27.5	8.4	18.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1238	550	606	2578	323	575
V/C Ratio(X)	1.18	0.29	1.15	0.61	0.42	0.83
Avail Cap(c_a), veh/h	1238	550	606	2578	400	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	29.4	41.1	8.5	45.2	49.2
Incr Delay (d2), s/veh	90.5	0.4	87.4	0.5	1.4	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.6	3.4	32.4	8.7	3.8	7.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	131.1	29.8	128.5	9.0	46.6	57.3
LnGrp LOS	F	C	F	A	D	E
Approach Vol, veh/h	1623			2285	616	
Approach Delay, s/veh	121.1			45.6	55.0	
Approach LOS	F			D	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	47.0	49.2			96.2	28.4
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	42.4	43.4			90.4	28.0
Max Q Clear Time (g_c+I1), s	44.4	45.4			29.5	20.2
Green Ext Time (p_c), s	0.0	0.0			25.7	2.4

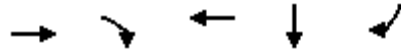
Intersection Summary

HCM 6th Ctrl Delay	73.9
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

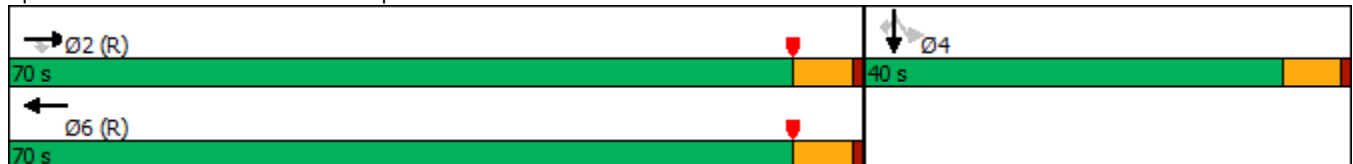


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	1955	715	1128	5	510
Future Volume (vph)	1955	715	1128	5	510
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	1955	715	0	1128	803	0	0	0	401	5	510
Future Volume (veh/h)	0	1955	715	0	1128	803	0	0	0	401	5	510
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2080	761	0	1200	854				427	5	543
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3193	977	0	2128	971				474	6	751
Arrive On Green	0.00	0.63	0.63	0.00	1.00	1.00				0.27	0.27	0.27
Sat Flow, veh/h	0	5274	1563	0	3572	1552				1762	21	2790
Grp Volume(v), veh/h	0	2080	761	0	1200	854				432	0	543
Grp Sat Flow(s),veh/h/ln	0	1702	1563	0	1702	1552				1782	0	1395
Q Serve(g_s), s	0.0	28.3	39.1	0.0	0.0	0.0				25.7	0.0	19.4
Cycle Q Clear(g_c), s	0.0	28.3	39.1	0.0	0.0	0.0				25.7	0.0	19.4
Prop In Lane	0.00		1.00	0.00		1.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	3193	977	0	2128	971				480	0	751
V/C Ratio(X)	0.00	0.65	0.78	0.00	0.56	0.88				0.90	0.00	0.72
Avail Cap(c_a), veh/h	0	3193	977	0	2128	971				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.46	0.46				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.0	15.1	0.0	0.0	0.0				38.8	0.0	36.5
Incr Delay (d2), s/veh	0.0	1.0	6.1	0.0	0.5	5.7				15.0	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	13.4	0.0	0.1	1.5				13.0	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.1	21.2	0.0	0.5	5.7				53.8	0.0	38.4
LnGrp LOS	A	B	C	A	A	A				D	A	D
Approach Vol, veh/h		2841			2054						975	
Approach Delay, s/veh		16.0			2.6						45.2	
Approach LOS		B			A						D	
Timer - Assigned Phs		2			4						6	
Phs Duration (G+Y+Rc), s		74.6			35.4						74.6	
Change Period (Y+Rc), s		5.8			5.8						5.8	
Max Green Setting (Gmax), s		64.2			34.2						64.2	
Max Q Clear Time (g_c+I1), s		41.1			27.7						2.0	
Green Ext Time (p_c), s		13.9			1.9						15.1	
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

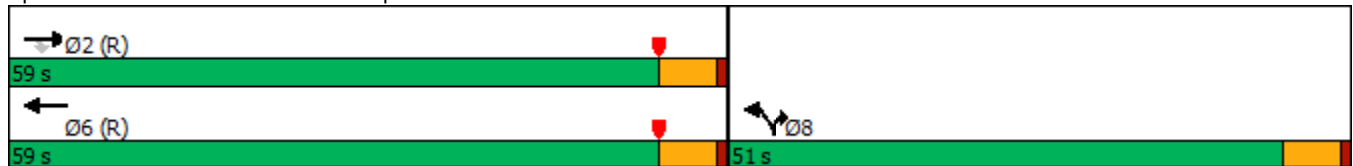


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑
Traffic Volume (vph)	1431	925	1538	393	954
Future Volume (vph)	1431	925	1538	393	954
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	43.8	43.8	22.0	22.0	22.0
Total Split (s)	59.0	59.0	59.0	51.0	51.0
Total Split (%)	53.6%	53.6%	53.6%	46.4%	46.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 12 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1431	925	0	1538	393	954
Future Volume (veh/h)	1431	925	0	1538	393	954
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1555	0	0	1672	712	732
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2469		0	2469	732	651
Arrive On Green	0.97	0.00	0.00	0.48	0.41	0.41
Sat Flow, veh/h	5274	1585	0	5443	1781	1585
Grp Volume(v), veh/h	1555	0	0	1672	712	732
Grp Sat Flow(s),veh/h/ln	1702	1585	0	1702	1781	1585
Q Serve(g_s), s	2.8	0.0	0.0	27.7	43.1	45.2
Cycle Q Clear(g_c), s	2.8	0.0	0.0	27.7	43.1	45.2
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2469		0	2469	732	651
V/C Ratio(X)	0.63		0.00	0.68	0.97	1.12
Avail Cap(c_a), veh/h	2469		0	2469	732	651
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	1.0	0.0	0.0	21.8	31.8	32.4
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.1	26.4	74.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	10.2	23.0	29.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.8	0.0	0.0	21.9	58.2	106.9
LnGrp LOS	A		A	C	E	F
Approach Vol, veh/h	1555	A		1672	1444	
Approach Delay, s/veh	1.8			21.9	82.9	
Approach LOS	A			C	F	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		59.0			59.0	51.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		53.2			53.2	45.2
Max Q Clear Time (g_c+I1), s		4.8			29.7	47.2
Green Ext Time (p_c), s		8.9			8.6	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.  
 Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

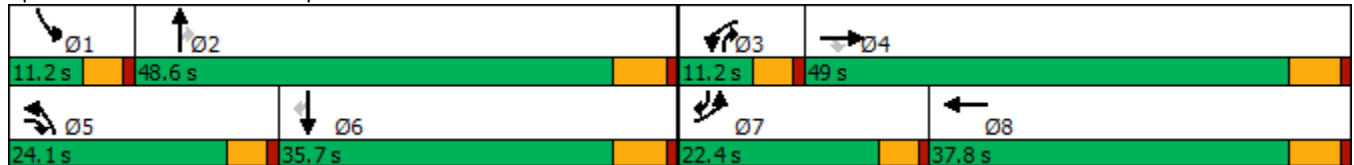
12/07/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	250	704	373	131	861	288	164	74	74	191	439	
Future Volume (vph)	250	704	373	131	861	288	164	74	74	191	439	
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	
Protected Phases	7	4	5	3	8	5	2	3	1	6	7	
Permitted Phases			4					2			6	
Detector Phase	7	4	5	3	8	5	2	3	1	6	7	
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6	
Total Split (s)	22.4	49.0	24.1	11.2	37.8	24.1	48.6	11.2	11.2	35.7	22.4	
Total Split (%)	18.7%	40.8%	20.1%	9.3%	31.5%	20.1%	40.5%	9.3%	9.3%	29.8%	18.7%	
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 89.1  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated

































Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/07/2021

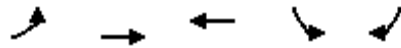
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	  		 	 		 	 	
Traffic Volume (veh/h)	250	704	373	131	861	64	288	164	74	74	191	439
Future Volume (veh/h)	250	704	373	131	861	64	288	164	74	74	191	439
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	275	774	263	144	946	65	316	180	43	81	210	386
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	365	1104	680	218	1307	90	409	1115	597	104	475	570
Arrive On Green	0.11	0.31	0.31	0.06	0.27	0.27	0.12	0.31	0.31	0.06	0.25	0.25
Sat Flow, veh/h	3456	3554	1585	3456	4880	335	3456	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	275	774	263	144	659	352	316	180	43	81	210	386
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1810	1728	1777	1585	1781	1870	1585
Q Serve(g_s), s	6.3	15.7	9.3	3.3	14.4	14.4	7.3	3.0	1.4	3.7	7.7	16.9
Cycle Q Clear(g_c), s	6.3	15.7	9.3	3.3	14.4	14.4	7.3	3.0	1.4	3.7	7.7	16.9
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	365	1104	680	218	912	485	409	1115	597	104	475	570
V/C Ratio(X)	0.75	0.70	0.39	0.66	0.72	0.73	0.77	0.16	0.07	0.78	0.44	0.68
Avail Cap(c_a), veh/h	752	1876	1024	279	1331	708	824	1859	929	144	684	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	24.9	16.0	37.5	27.2	27.2	35.0	20.3	16.3	38.0	25.7	22.2
Incr Delay (d2), s/veh	1.2	0.8	0.4	1.8	1.1	2.1	1.2	0.1	0.1	10.9	0.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.1	3.0	1.4	5.5	6.0	2.9	1.2	0.5	1.8	3.3	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	25.7	16.4	39.2	28.3	29.3	36.2	20.4	16.4	48.9	26.3	23.8
LnGrp LOS	D	C	B	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		1312			1155			539			677	
Approach Delay, s/veh		26.1			30.0			29.3			27.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	31.5	9.8	31.2	14.3	26.6	13.3	27.7				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	6.6	42.8	6.6	43.2	19.5	29.9	17.8	32.0				
Max Q Clear Time (g_c+I1), s	5.7	5.0	5.3	17.7	9.3	18.9	8.3	16.4				
Green Ext Time (p_c), s	0.0	1.2	0.0	6.2	0.4	1.9	0.3	5.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			28.1									
HCM 6th LOS			C									



Timings

8: Baxter Rd. & Warm Springs Rd.

12/07/2021



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↖	↑↑	↑↑↔	↖	↗
Traffic Volume (vph)	8	152	255	6	11
Future Volume (vph)	8	152	255	6	11
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	6.0	10.0	10.0	6.0	6.0
Minimum Split (s)	10.6	15.8	38.8	25.6	25.6
Total Split (s)	10.6	49.4	38.8	25.6	25.6
Total Split (%)	14.1%	65.9%	51.7%	34.1%	34.1%
Yellow Time (s)	3.6	4.8	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min	None	None

Intersection Summary

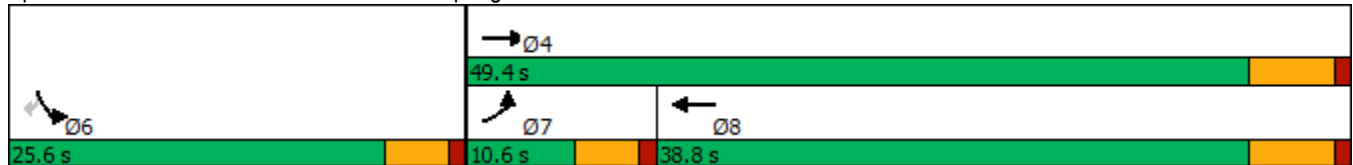
Cycle Length: 75

Actuated Cycle Length: 32.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Baxter Rd. & Warm Springs Rd.



HCM 6th Signalized Intersection Summary  
 8: Baxter Rd. & Warm Springs Rd.

Discovery Village (JN:14073)

12/07/2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↑↑	↑↑		↖	↖	
Traffic Volume (veh/h)	8	152	255	11	6	11	
Future Volume (veh/h)	8	152	255	11	6	11	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	8	157	263	10	6	2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	23	2072	1366	52	23	21	
Arrive On Green	0.01	0.58	0.39	0.39	0.01	0.01	
Sat Flow, veh/h	1781	3647	3581	132	1781	1585	
Grp Volume(v), veh/h	8	157	133	140	6	2	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1843	1781	1585	
Q Serve(g_s), s	0.1	0.5	1.3	1.3	0.1	0.0	
Cycle Q Clear(g_c), s	0.1	0.5	1.3	1.3	0.1	0.0	
Prop In Lane	1.00			0.07	1.00	1.00	
Lane Grp Cap(c), veh/h	23	2072	696	722	23	21	
V/C Ratio(X)	0.35	0.08	0.19	0.19	0.26	0.10	
Avail Cap(c_a), veh/h	415	6017	2277	2362	1453	1293	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	12.6	2.3	5.2	5.2	12.6	12.6	
Incr Delay (d2), s/veh	8.7	0.0	0.2	0.2	5.8	2.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	0.2	0.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.3	2.4	5.4	5.4	18.4	14.6	
LnGrp LOS	C	A	A	A	B	B	
Approach Vol, veh/h		165	273		8		
Approach Delay, s/veh		3.3	5.4		17.4		
Approach LOS		A	A		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				20.8	4.9	4.9	15.9
Change Period (Y+Rc), s				5.8	4.6	4.6	5.8
Max Green Setting (Gmax), s				43.6	21.0	6.0	33.0
Max Q Clear Time (g_c+I1), s				2.5	2.1	2.1	3.3
Green Ext Time (p_c), s				1.5	0.0	0.0	2.3
<b>Intersection Summary</b>							
HCM 6th Ctrl Delay			4.8				
HCM 6th LOS			A				

Timings  
17: Menifee Rd. & Scott Rd.

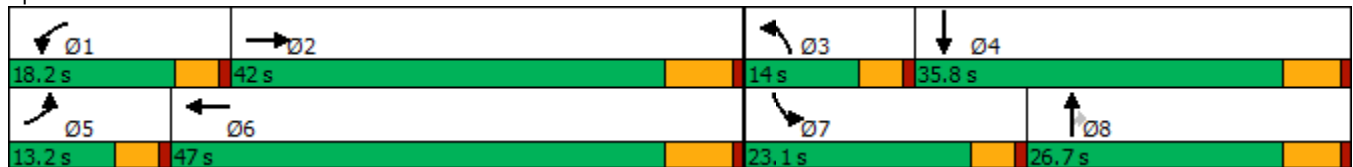


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	88	779	250	954	231	237	260	171	339
Future Volume (vph)	88	779	250	954	231	237	260	171	339
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	13.2	42.0	18.2	47.0	14.0	26.7	26.7	23.1	35.8
Total Split (%)	12.0%	38.2%	16.5%	42.7%	12.7%	24.3%	24.3%	21.0%	32.5%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary























Cycle Length: 110  
 Actuated Cycle Length: 110  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Menifee Rd. & Scott Rd.



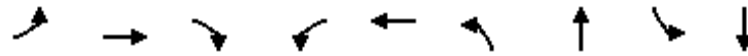
HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	779	143	250	954	137	231	237	260	171	339	143
Future Volume (veh/h)	88	779	143	250	954	137	231	237	260	171	339	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	856	146	275	1048	139	254	260	218	188	373	153
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	966	165	222	1178	156	153	444	371	220	344	141
Arrive On Green	0.07	0.32	0.32	0.12	0.37	0.37	0.09	0.24	0.24	0.12	0.27	0.27
Sat Flow, veh/h	1781	3036	518	1781	3145	417	1781	1870	1562	1781	1253	514
Grp Volume(v), veh/h	97	501	501	275	592	595	254	260	218	188	0	526
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1781	1777	1785	1781	1870	1562	1781	0	1766
Q Serve(g_s), s	5.9	29.3	29.3	13.6	34.1	34.2	9.4	13.5	13.5	11.3	0.0	30.0
Cycle Q Clear(g_c), s	5.9	29.3	29.3	13.6	34.1	34.2	9.4	13.5	13.5	11.3	0.0	30.0
Prop In Lane	1.00		0.29	1.00		0.23	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	122	566	566	222	665	668	153	444	371	220	0	485
V/C Ratio(X)	0.80	0.89	0.89	1.24	0.89	0.89	1.66	0.59	0.59	0.86	0.00	1.08
Avail Cap(c_a), veh/h	140	577	577	222	665	668	153	444	371	302	0	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.2	35.4	35.4	47.8	32.1	32.1	49.9	36.9	36.9	47.0	0.0	39.6
Incr Delay (d2), s/veh	23.9	18.2	18.2	140.5	16.3	16.5	323.2	4.8	5.8	16.0	0.0	65.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	14.5	14.5	14.4	16.3	16.5	17.8	6.5	5.6	5.8	0.0	21.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.1	53.6	53.6	188.4	48.4	48.6	373.1	41.7	42.8	63.0	0.0	105.4
LnGrp LOS	E	D	D	F	D	D	F	D	D	E	A	F
Approach Vol, veh/h		1099			1462			732			714	
Approach Delay, s/veh		55.4			74.8			157.0			94.2	
Approach LOS		E			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	41.3	14.0	35.8	12.1	47.4	18.1	31.7				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	13.6	35.5	9.4	30.0	8.6	40.5	18.5	20.9				
Max Q Clear Time (g_c+I1), s	15.6	31.3	11.4	32.0	7.9	36.2	13.3	15.5				
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.0	3.8	0.2	2.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				87.9								
HCM 6th LOS				F								

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/07/2021

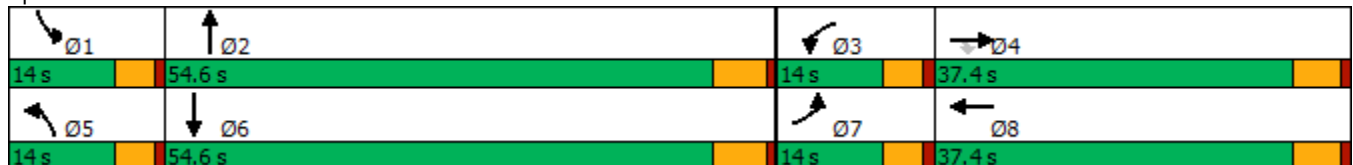


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	85	18	58	24	18	27	429	7	709
Future Volume (vph)	85	18	58	24	18	27	429	7	709
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary























Cycle Length: 120  
Actuated Cycle Length: 70.4  
Natural Cycle: 120  
Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



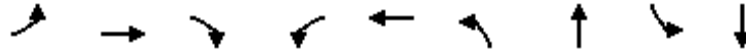
HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	18	58	24	18	23	27	429	10	7	709	98
Future Volume (veh/h)	85	18	58	24	18	23	27	429	10	7	709	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	20	47	27	20	18	30	477	9	8	788	102
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	341	284	62	274	213	68	1700	32	22	1424	184
Arrive On Green	0.07	0.18	0.18	0.04	0.15	0.15	0.04	0.48	0.48	0.01	0.45	0.45
Sat Flow, veh/h	1781	1870	1556	1781	1887	1464	1781	3566	67	1781	3156	408
Grp Volume(v), veh/h	94	20	47	27	19	19	30	237	249	8	444	446
Grp Sat Flow(s),veh/h/ln	1781	1870	1556	1781	1777	1574	1781	1777	1856	1781	1777	1788
Q Serve(g_s), s	3.6	0.6	1.8	1.0	0.6	0.7	1.1	5.6	5.6	0.3	12.7	12.7
Cycle Q Clear(g_c), s	3.6	0.6	1.8	1.0	0.6	0.7	1.1	5.6	5.6	0.3	12.7	12.7
Prop In Lane	1.00		1.00	1.00		0.93	1.00		0.04	1.00		0.23
Lane Grp Cap(c), veh/h	129	341	284	62	258	229	68	847	885	22	802	806
V/C Ratio(X)	0.73	0.06	0.17	0.43	0.07	0.08	0.44	0.28	0.28	0.36	0.55	0.55
Avail Cap(c_a), veh/h	241	861	716	241	818	724	241	1247	1303	241	1247	1255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	23.5	24.0	32.9	25.7	25.7	32.7	11.0	11.0	34.1	14.0	14.0
Incr Delay (d2), s/veh	7.7	0.3	1.3	4.7	0.5	0.7	4.5	0.7	0.7	9.8	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.3	0.7	0.5	0.3	0.3	0.5	1.9	2.0	0.2	4.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	23.8	25.2	37.5	26.2	26.4	37.2	11.7	11.7	43.8	16.2	16.2
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		161			65			516			898	
Approach Delay, s/veh		33.3			31.0			13.1			16.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	38.9	7.0	18.1	7.2	37.2	9.6	15.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	32.0	9.4	48.8	9.4	32.0				
Max Q Clear Time (g_c+I1), s	2.3	7.6	3.0	3.8	3.1	14.7	5.6	2.7				
Green Ext Time (p_c), s	0.0	8.0	0.0	0.7	0.0	15.8	0.1	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

Timings  
19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
12/07/2021

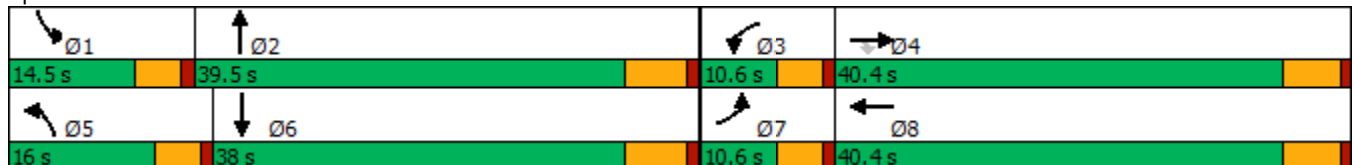


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↑	↘	↙	↑↓	↙	↑↓	↙	↑↓
Traffic Volume (vph)	23	3	144	50	15	221	522	6	976
Future Volume (vph)	23	3	144	50	15	221	522	6	976
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	16.0	39.5	14.5	38.0
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	15.2%	37.6%	13.8%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary























Cycle Length: 105  
 Actuated Cycle Length: 74.8  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	3	144	50	15	6	221	522	41	6	976	29
Future Volume (veh/h)	23	3	144	50	15	6	221	522	41	6	976	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	3	148	52	16	3	230	544	20	6	1017	26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	259	220	96	482	87	271	1804	66	17	1324	34
Arrive On Green	0.03	0.14	0.14	0.05	0.16	0.16	0.15	0.52	0.52	0.01	0.37	0.37
Sat Flow, veh/h	1781	1870	1585	1781	2996	543	1781	3492	128	1781	3539	90
Grp Volume(v), veh/h	24	3	148	52	9	10	230	276	288	6	511	532
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1763	1781	1777	1843	1781	1777	1852
Q Serve(g_s), s	1.0	0.1	6.4	2.1	0.3	0.3	9.1	6.5	6.5	0.2	18.3	18.3
Cycle Q Clear(g_c), s	1.0	0.1	6.4	2.1	0.3	0.3	9.1	6.5	6.5	0.2	18.3	18.3
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.07	1.00		0.05
Lane Grp Cap(c), veh/h	57	259	220	96	286	283	271	918	952	17	665	693
V/C Ratio(X)	0.42	0.01	0.67	0.54	0.03	0.03	0.85	0.30	0.30	0.36	0.77	0.77
Avail Cap(c_a), veh/h	147	903	765	147	858	851	280	918	952	243	789	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	26.9	29.7	33.4	25.7	25.7	29.9	10.0	10.0	35.7	19.9	19.9
Incr Delay (d2), s/veh	5.0	0.0	4.9	4.7	0.1	0.1	20.6	0.3	0.3	12.4	4.6	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.6	1.0	0.1	0.1	5.1	2.1	2.2	0.2	7.3	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	27.0	34.5	38.2	25.7	25.7	50.5	10.3	10.3	48.1	24.5	24.4
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		175			71			794			1049	
Approach Delay, s/veh		35.1			34.8			22.0			24.6	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	43.3	8.5	15.5	15.6	32.9	6.9	17.1				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	11.4	32.2	6.0	35.0				
Max Q Clear Time (g_c+I1), s	2.2	8.5	4.1	8.4	11.1	20.3	3.0	2.3				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.7	0.0	6.7	0.0	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			24.8									
HCM 6th LOS			C									



Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	14	14	770	14	14	1156
Future Vol, veh/h	14	14	770	14	14	1156
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	15	846	15	15	1270

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1520	432	0	0	862
Stage 1	855	-	-	-	-
Stage 2	665	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	109	572	-	-	776
Stage 1	377	-	-	-	-
Stage 2	473	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	102	572	-	-	775
Mov Cap-2 Maneuver	288	-	-	-	-
Stage 1	377	-	-	-	-
Stage 2	442	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	383	775
HCM Lane V/C Ratio	-	-	0.08	0.02
HCM Control Delay (s)	-	-	15.2	9.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/07/2021



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	205	952	284	1368	156	347	1111	610	1493
Future Volume (vph)	205	952	284	1368	156	347	1111	610	1493
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	14.0	47.0	15.0	48.0	48.0	16.0	59.0	24.0	67.0
Total Split (%)	9.7%	32.4%	10.3%	33.1%	33.1%	11.0%	40.7%	16.6%	46.2%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↔		↔↔	↑↑↑	↔	↔	↑↔		↔	↑↔	
Traffic Volume (veh/h)	205	952	368	284	1368	156	347	1111	287	610	1493	133
Future Volume (veh/h)	205	952	368	284	1368	156	347	1111	287	610	1493	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.94	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	236	1094	423	326	1572	179	399	1277	330	701	1716	153
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	968	374	248	1461	427	140	1013	254	238	1389	122
Arrive On Green	0.06	0.28	0.28	0.07	0.29	0.29	0.08	0.37	0.37	0.13	0.42	0.42
Sat Flow, veh/h	3456	3466	1340	3456	5106	1494	1781	2760	693	1781	3290	288
Grp Volume(v), veh/h	236	1074	443	326	1572	179	399	809	798	701	913	956
Grp Sat Flow(s),veh/h/ln	1728	1702	1402	1728	1702	1494	1781	1777	1676	1781	1777	1802
Q Serve(g_s), s	9.4	40.5	40.5	10.4	41.5	14.1	11.4	53.2	53.2	19.4	61.2	61.2
Cycle Q Clear(g_c), s	9.4	40.5	40.5	10.4	41.5	14.1	11.4	53.2	53.2	19.4	61.2	61.2
Prop In Lane	1.00		0.96	1.00		1.00	1.00		0.41	1.00		0.16
Lane Grp Cap(c), veh/h	224	951	392	248	1461	427	140	652	615	238	750	760
V/C Ratio(X)	1.05	1.13	1.13	1.32	1.08	0.42	2.85	1.24	1.30	2.94	1.22	1.26
Avail Cap(c_a), veh/h	224	951	392	248	1461	427	140	652	615	238	750	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.8	52.3	52.3	67.3	51.8	42.0	66.8	45.9	45.9	62.8	41.9	41.9
Incr Delay (d2), s/veh	74.9	71.9	85.9	167.5	46.8	1.4	851.4	121.1	145.8	884.9	109.9	126.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	26.3	23.2	10.3	23.5	5.3	38.2	44.5	46.2	67.2	48.5	52.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	142.7	124.1	138.1	234.8	98.5	43.4	918.2	167.0	191.7	947.7	151.8	168.1
LnGrp LOS	F	F	F	F	F	D	F	F	F	F	F	F
Approach Vol, veh/h		1753			2077			2006			2570	
Approach Delay, s/veh		130.2			115.2			326.2			375.0	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	59.0	15.0	47.0	16.0	67.0	14.0	48.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	19.4	53.2	10.4	40.5	11.4	61.2	9.4	41.5				
Max Q Clear Time (g_c+I1), s	21.4	55.2	12.4	42.5	13.4	63.2	11.4	43.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

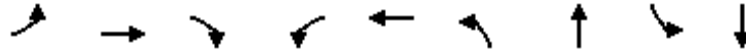
HCM 6th Ctrl Delay	248.1
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)  
12/07/2021

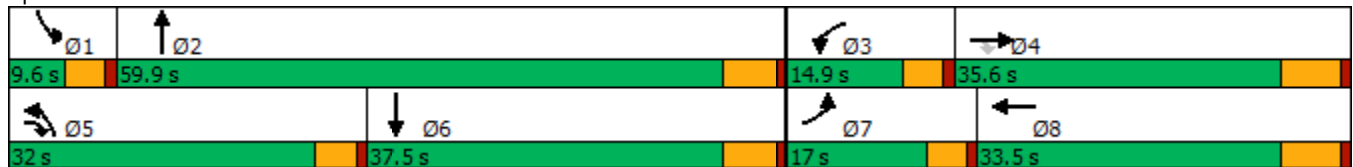


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖↗	↑↑	↖↗	↑↑
Traffic Volume (vph)	295	329	683	221	546	582	266	18	479
Future Volume (vph)	295	329	683	221	546	582	266	18	479
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	17.0	35.6	32.0	14.9	33.5	32.0	59.9	9.6	37.5
Total Split (%)	14.2%	29.7%	26.7%	12.4%	27.9%	26.7%	49.9%	8.0%	31.3%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary































Cycle Length: 120  
 Actuated Cycle Length: 105.4  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.

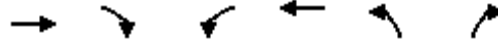


HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	295	329	683	221	546	19	582	266	44	18	479	204
Future Volume (veh/h)	295	329	683	221	546	19	582	266	44	18	479	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	339	571	228	563	13	600	274	31	19	494	162
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	1000	756	292	922	21	678	1306	146	70	605	197
Arrive On Green	0.11	0.28	0.28	0.08	0.26	0.26	0.20	0.41	0.41	0.02	0.23	0.23
Sat Flow, veh/h	3456	3554	1582	3456	3551	82	3456	3220	361	3456	2632	858
Grp Volume(v), veh/h	304	339	571	228	282	294	600	150	155	19	333	323
Grp Sat Flow(s),veh/h/ln	1728	1777	1582	1728	1777	1856	1728	1777	1804	1728	1777	1713
Q Serve(g_s), s	8.9	7.8	29.1	6.7	14.4	14.4	17.5	5.7	5.8	0.6	18.3	18.5
Cycle Q Clear(g_c), s	8.9	7.8	29.1	6.7	14.4	14.4	17.5	5.7	5.8	0.6	18.3	18.5
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.20	1.00		0.50
Lane Grp Cap(c), veh/h	368	1000	756	292	461	482	678	721	732	70	408	394
V/C Ratio(X)	0.83	0.34	0.76	0.78	0.61	0.61	0.88	0.21	0.21	0.27	0.81	0.82
Avail Cap(c_a), veh/h	414	1000	756	344	464	485	916	930	944	167	545	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	29.5	22.1	46.4	33.7	33.7	40.4	19.9	20.0	49.9	37.7	37.8
Incr Delay (d2), s/veh	10.5	0.2	4.3	7.7	2.3	2.2	6.6	0.1	0.1	0.8	7.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	3.1	10.9	3.1	6.1	6.4	7.7	2.2	2.3	0.2	8.4	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	29.7	26.4	54.1	36.0	35.9	47.0	20.1	20.1	50.6	44.7	45.5
LnGrp LOS	E	C	C	D	D	D	D	C	C	D	D	D
Approach Vol, veh/h		1214			804			905			675	
Approach Delay, s/veh		34.7			41.1			37.9			45.2	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	47.7	13.3	35.6	24.9	29.6	15.6	33.3				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	54.1	10.3	29.1	27.4	31.7	12.4	27.0				
Max Q Clear Time (g_c+I1), s	2.6	7.8	8.7	31.1	19.5	20.5	10.9	16.4				
Green Ext Time (p_c), s	0.0	1.7	0.1	0.0	0.8	2.8	0.1	2.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			38.9									
HCM 6th LOS			D									

Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

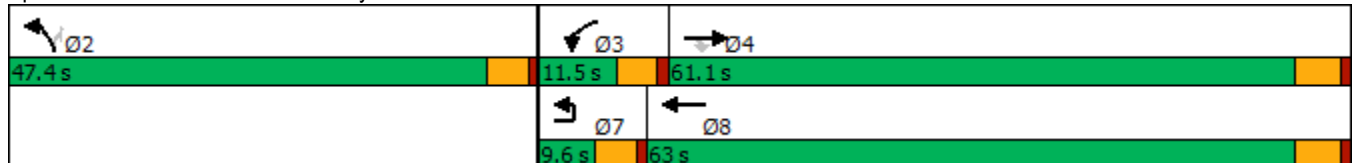


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	1149	277	93	1054	434	167	
Future Volume (vph)	1149	277	93	1054	434	167	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	61.1	61.1	11.5	63.0	47.4	47.4	9.6
Total Split (%)	50.9%	50.9%	9.6%	52.5%	39.5%	39.5%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 103.1  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↻	↻	↰	↻	↰	↻
Traffic Volume (veh/h)	0	1149	277	93	1054	434	167
Future Volume (veh/h)	0	1149	277	93	1054	434	167
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		1209	183	98	1109	457	157
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1741	777	124	1138	512	456
Arrive On Green		0.49	0.49	0.07	0.61	0.29	0.29
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		1209	183	98	1109	457	157
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		24.8	6.3	5.1	53.7	23.2	7.4
Cycle Q Clear(g_c), s		24.8	6.3	5.1	53.7	23.2	7.4
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1741	777	124	1138	512	456
V/C Ratio(X)		0.69	0.24	0.79	0.97	0.89	0.34
Avail Cap(c_a), veh/h		2113	942	130	1150	808	719
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		18.6	13.8	43.1	17.7	32.2	26.5
Incr Delay (d2), s/veh		0.8	0.2	23.7	20.5	8.0	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		9.6	2.2	3.0	25.9	10.8	2.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		19.3	14.0	66.9	38.2	40.1	27.0
LnGrp LOS		B	B	E	D	D	C
Approach Vol, veh/h		1392			1207	614	
Approach Delay, s/veh		18.6			40.6	36.8	
Approach LOS		B			D	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		31.8	11.2	51.3			62.4
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 43	6.9	56.0			57.9
Max Q Clear Time (g_c+I1), s		25.2	7.1	26.8			55.7
Green Ext Time (p_c), s		1.9	0.0	11.3			1.6

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

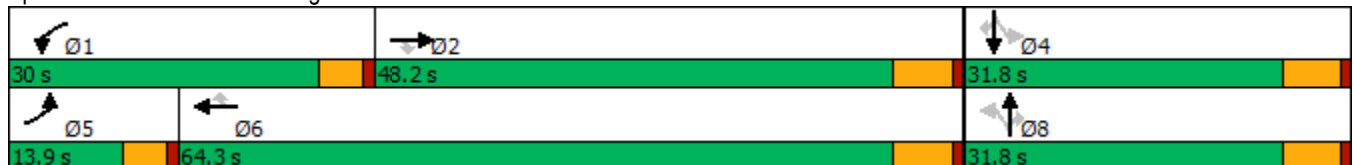
12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	1304	102	470	1133	123	89	87	430	148	62	33
Future Volume (vph)	56	1304	102	470	1133	123	89	87	430	148	62	33
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	31.8	31.8	31.8	31.8	31.8	11.8	11.8	11.8
Total Split (s)	13.9	48.2	48.2	30.0	64.3	64.3	31.8	31.8	31.8	31.8	31.8	31.8
Total Split (%)	12.6%	43.8%	43.8%	27.3%	58.5%	58.5%	28.9%	28.9%	28.9%	28.9%	28.9%	28.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 102.3  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.





























HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

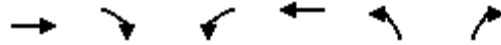
Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	1304	102	470	1133	123	89	87	430	148	62	33
Future Volume (veh/h)	56	1304	102	470	1133	123	89	87	430	148	62	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	1387	88	500	1205	97	95	93	245	157	66	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	1413	614	424	2094	913	305	397	330	245	397	332
Arrive On Green	0.05	0.40	0.40	0.24	0.59	0.59	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1543	1781	3554	1550	1297	1870	1556	1039	1870	1564
Grp Volume(v), veh/h	60	1387	88	500	1205	97	95	93	245	157	66	32
Grp Sat Flow(s),veh/h/ln	1781	1777	1543	1781	1777	1550	1297	1870	1556	1039	1870	1564
Q Serve(g_s), s	3.5	41.1	3.9	25.4	22.5	2.9	6.9	4.4	15.7	15.7	3.1	1.8
Cycle Q Clear(g_c), s	3.5	41.1	3.9	25.4	22.5	2.9	10.0	4.4	15.7	20.1	3.1	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	1413	614	424	2094	913	305	397	330	245	397	332
V/C Ratio(X)	0.72	0.98	0.14	1.18	0.58	0.11	0.31	0.23	0.74	0.64	0.17	0.10
Avail Cap(c_a), veh/h	155	1413	614	424	2094	913	347	456	379	278	456	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	31.7	20.5	40.6	13.6	9.6	38.4	34.8	39.3	43.2	34.3	33.8
Incr Delay (d2), s/veh	11.1	19.6	0.1	102.2	0.5	0.1	0.7	0.4	7.2	4.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	20.1	1.4	22.6	8.0	0.9	2.2	2.0	6.6	4.3	1.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	51.3	20.7	142.8	14.1	9.7	39.1	35.2	46.4	47.8	34.5	33.9
LnGrp LOS	E	D	C	F	B	A	D	D	D	D	C	C
Approach Vol, veh/h		1535			1802			433			255	
Approach Delay, s/veh		49.9			49.6			42.4			42.6	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	48.2		28.4	9.6	68.6		28.4				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	25.4	42.4		26.0	9.3	58.5		26.0				
Max Q Clear Time (g_c+I1), s	27.4	43.1		22.1	5.5	24.5		17.7				
Green Ext Time (p_c), s	0.0	0.0		0.5	0.0	14.6		1.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				48.5								
HCM 6th LOS				D								

Timings

3: California Oaks St. & Clinton Keith Rd.

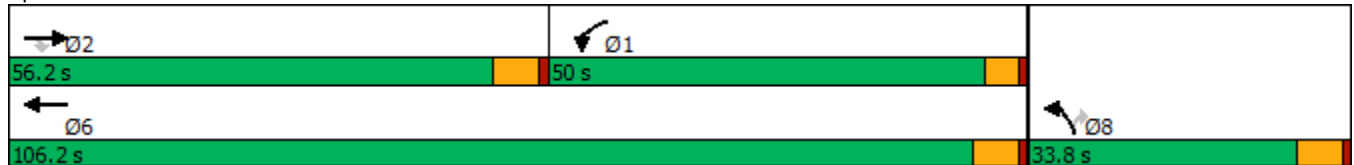


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1670	184	793	1504	176	868
Future Volume (vph)	1670	184	793	1504	176	868
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	32.8	32.8	10.6	15.8	33.8	33.8
Total Split (s)	56.2	56.2	50.0	106.2	33.8	33.8
Total Split (%)	40.1%	40.1%	35.7%	75.9%	24.1%	24.1%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 134.1  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (veh/h)	1670	184	793	1504	176	868
Future Volume (veh/h)	1670	184	793	1504	176	868
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1835	169	871	1653	193	828
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1268	553	573	2557	353	629
Arrive On Green	0.36	0.36	0.32	0.72	0.20	0.20
Sat Flow, veh/h	3647	1550	1781	3647	1781	3170
Grp Volume(v), veh/h	1835	169	871	1653	193	828
Grp Sat Flow(s),veh/h/ln	1777	1550	1781	1777	1781	1585
Q Serve(g_s), s	50.4	11.1	45.4	34.4	13.8	28.0
Cycle Q Clear(g_c), s	50.4	11.1	45.4	34.4	13.8	28.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1268	553	573	2557	353	629
V/C Ratio(X)	1.45	0.31	1.52	0.65	0.55	1.32
Avail Cap(c_a), veh/h	1268	553	573	2557	353	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	32.8	47.9	10.4	50.9	56.6
Incr Delay (d2), s/veh	205.5	0.4	243.2	0.6	2.4	153.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	57.6	4.2	58.1	11.8	6.3	24.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	250.9	33.2	291.1	11.0	53.3	210.4
LnGrp LOS	F	C	F	B	D	F
Approach Vol, veh/h	2004			2524	1021	
Approach Delay, s/veh	232.5			107.7	180.7	
Approach LOS	F			F	F	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	51.2	56.2			107.4	33.8
Change Period (Y+Rc), s	5.8	* 5.8			5.8	5.8
Max Green Setting (Gmax), s	45.4	* 50			100.4	28.0
Max Q Clear Time (g_c+I1), s	47.4	52.4			36.4	30.0
Green Ext Time (p_c), s	0.0	0.0			28.2	0.0

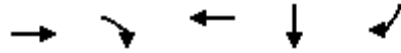
Intersection Summary

HCM 6th Ctrl Delay	166.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

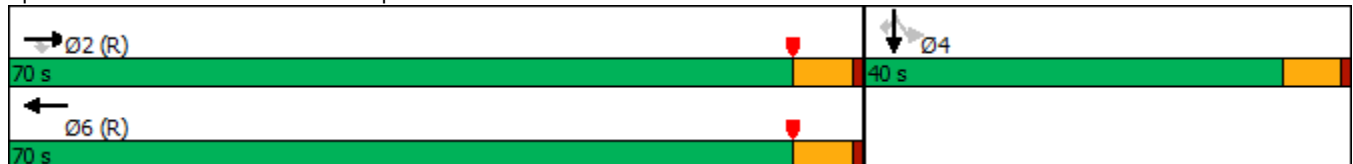


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	2069	692	1798	1	765
Future Volume (vph)	2069	692	1798	1	765
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	2069	692	0	1798	661	0	0	0	426	1	765
Future Volume (veh/h)	0	2069	692	0	1798	661	0	0	0	426	1	765
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2155	721	0	1873	689				444	1	797
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3017	921	0	2208	753				540	1	847
Arrive On Green	0.00	0.59	0.59	0.00	1.00	1.00				0.30	0.30	0.30
Sat Flow, veh/h	0	5274	1560	0	3906	1275				1777	4	2790
Grp Volume(v), veh/h	0	2155	721	0	1693	869				445	0	797
Grp Sat Flow(s),veh/h/ln	0	1702	1560	0	1702	1609				1781	0	1395
Q Serve(g_s), s	0.0	32.9	38.7	0.0	0.0	0.0				25.5	0.0	30.6
Cycle Q Clear(g_c), s	0.0	32.9	38.7	0.0	0.0	0.0				25.5	0.0	30.6
Prop In Lane	0.00		1.00	0.00		0.79				1.00		1.00
Lane Grp Cap(c), veh/h	0	3017	921	0	2011	951				541	0	847
V/C Ratio(X)	0.00	0.71	0.78	0.00	0.84	0.91				0.82	0.00	0.94
Avail Cap(c_a), veh/h	0	3017	921	0	2011	951				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.09	0.09				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.9	17.1	0.0	0.0	0.0				35.5	0.0	37.3
Incr Delay (d2), s/veh	0.0	1.5	6.6	0.0	0.4	1.7				8.9	0.0	17.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.5	13.7	0.0	0.1	0.5				12.1	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.4	23.7	0.0	0.4	1.7				44.4	0.0	54.7
LnGrp LOS	A	B	C	A	A	A				D	A	D
Approach Vol, veh/h		2876			2562						1242	
Approach Delay, s/veh		19.0			0.9						51.0	
Approach LOS		B			A						D	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		70.8		39.2		70.8						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		64.2		34.2		64.2						
Max Q Clear Time (g_c+I1), s		40.7		32.6		2.0						
Green Ext Time (p_c), s		14.4		0.8		23.2						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

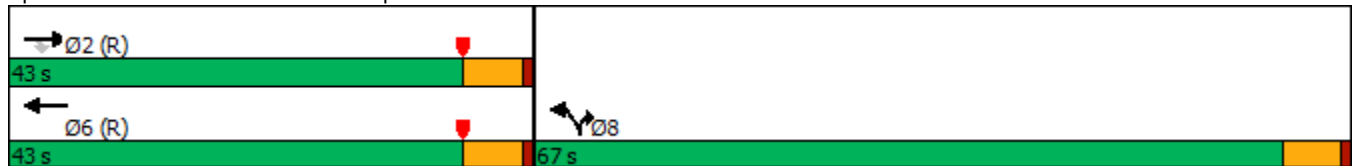


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑
Traffic Volume (vph)	1692	803	1470	989	1042
Future Volume (vph)	1692	803	1470	989	1042
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.8	23.8	10.8	10.8	10.8
Total Split (s)	43.0	43.0	43.0	67.0	67.0
Total Split (%)	39.1%	39.1%	39.1%	60.9%	60.9%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

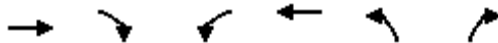
Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1692	803	0	1470	989	1042
Future Volume (veh/h)	1692	803	0	1470	989	1042
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1781	0	0	1547	1041	686
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	1727		0	1727	991	882
Arrive On Green	0.68	0.00	0.00	0.34	0.56	0.56
Sat Flow, veh/h	5274	1585	0	5443	1781	1585
Grp Volume(v), veh/h	1781	0	0	1547	1041	686
Grp Sat Flow(s),veh/h/ln	1702	1585	0	1702	1781	1585
Q Serve(g_s), s	37.2	0.0	0.0	31.6	61.2	37.2
Cycle Q Clear(g_c), s	37.2	0.0	0.0	31.6	61.2	37.2
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1727		0	1727	991	882
V/C Ratio(X)	1.03		0.00	0.90	1.05	0.78
Avail Cap(c_a), veh/h	1727		0	1727	991	882
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	0.0	34.6	24.4	19.1
Incr Delay (d2), s/veh	25.9	0.0	0.0	0.8	42.8	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	0.0	12.4	35.1	13.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.7	0.0	0.0	35.4	67.2	23.1
LnGrp LOS	F		A	D	F	C
Approach Vol, veh/h	1781	A		1547	1727	
Approach Delay, s/veh	43.7			35.4	49.7	
Approach LOS	D			D	D	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.0			43.0	67.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		37.2			37.2	61.2
Max Q Clear Time (g_c+I1), s		39.2			33.6	63.2
Green Ext Time (p_c), s		0.0			2.3	0.0

Intersection Summary

HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.  
Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

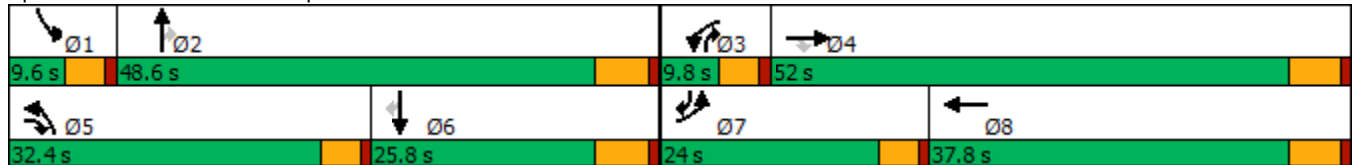


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	343	858	354	106	869	467	229	127	69	135	330
Future Volume (vph)	343	858	354	106	869	467	229	127	69	135	330
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6
Total Split (s)	24.0	52.0	32.4	9.8	37.8	32.4	48.6	9.8	9.6	25.8	24.0
Total Split (%)	20.0%	43.3%	27.0%	8.2%	31.5%	27.0%	40.5%	8.2%	8.0%	21.5%	20.0%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 91.7  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Antelope Rd. & Scott Rd.





























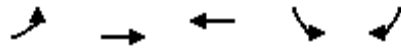
HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	858	354	106	869	73	467	229	127	69	135	330
Future Volume (veh/h)	343	858	354	106	869	73	467	229	127	69	135	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	350	876	244	108	887	64	477	234	82	70	138	278
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	446	1182	793	196	1267	91	581	1067	559	90	341	494
Arrive On Green	0.13	0.33	0.33	0.06	0.26	0.26	0.17	0.30	0.30	0.05	0.18	0.18
Sat Flow, veh/h	3456	3554	1582	3456	4862	350	3456	3554	1562	1781	1870	1585
Grp Volume(v), veh/h	350	876	244	108	620	331	477	234	82	70	138	278
Grp Sat Flow(s),veh/h/ln	1728	1777	1582	1728	1702	1807	1728	1777	1562	1781	1870	1585
Q Serve(g_s), s	7.9	17.5	7.3	2.4	13.2	13.3	10.7	3.9	2.9	3.1	5.2	11.7
Cycle Q Clear(g_c), s	7.9	17.5	7.3	2.4	13.2	13.3	10.7	3.9	2.9	3.1	5.2	11.7
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	446	1182	793	196	887	471	581	1067	559	90	341	494
V/C Ratio(X)	0.79	0.74	0.31	0.55	0.70	0.70	0.82	0.22	0.15	0.78	0.40	0.56
Avail Cap(c_a), veh/h	838	2052	1180	225	1361	723	1200	1901	926	111	467	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	23.6	11.8	36.7	26.8	26.8	32.1	21.0	17.5	37.6	28.9	23.0
Incr Delay (d2), s/veh	1.2	0.9	0.2	0.9	1.0	1.9	1.1	0.1	0.1	19.0	0.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.7	2.2	1.0	5.0	5.5	4.2	1.5	0.9	1.7	2.2	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	24.6	12.0	37.6	27.8	28.7	33.3	21.1	17.6	56.5	29.6	24.0
LnGrp LOS	C	C	B	D	C	C	C	C	B	E	C	C
Approach Vol, veh/h		1470			1059			793			486	
Approach Delay, s/veh		25.0			29.1			28.0			30.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	29.8	9.1	32.4	18.0	20.4	14.9	26.7				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	5.0	42.8	5.2	46.2	27.8	20.0	19.4	32.0				
Max Q Clear Time (g_c+I1), s	5.1	5.9	4.4	19.5	12.7	13.7	9.9	15.3				
Green Ext Time (p_c), s	0.0	1.7	0.0	7.1	0.8	0.9	0.5	5.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				27.4								
HCM 6th LOS				C								

Timings  
8: Baxter Rd. & Warm Springs Rd.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↗	↑↑	↑↑↔	↖	↗
Traffic Volume (vph)	2	198	112	14	21
Future Volume (vph)	2	198	112	14	21
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	6.0	10.0	10.0	6.0	6.0
Minimum Split (s)	10.6	15.8	38.8	25.6	25.6
Total Split (s)	10.6	49.4	38.8	25.6	25.6
Total Split (%)	14.1%	65.9%	51.7%	34.1%	34.1%
Yellow Time (s)	3.6	4.8	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	4.6
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min	None	None

Intersection Summary

Cycle Length: 75  
 Actuated Cycle Length: 32.7  
 Natural Cycle: 75  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Baxter Rd. & Warm Springs Rd.



HCM 6th Signalized Intersection Summary  
8: Baxter Rd. & Warm Springs Rd.

Discovery Village (JN:14073)

12/06/2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↶		↶	↷	
Traffic Volume (veh/h)	2	198	112	0	14	21	
Future Volume (veh/h)	2	198	112	0	14	21	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	2	215	122	0	15	8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	7	2077	1311	0	63	56	
Arrive On Green	0.00	0.58	0.37	0.00	0.04	0.04	
Sat Flow, veh/h	1781	3647	3741	0	1781	1585	
Grp Volume(v), veh/h	2	215	122	0	15	8	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	0	1781	1585	
Q Serve(g_s), s	0.0	0.7	0.6	0.0	0.2	0.1	
Cycle Q Clear(g_c), s	0.0	0.7	0.6	0.0	0.2	0.1	
Prop In Lane	1.00			0.00	1.00	1.00	
Lane Grp Cap(c), veh/h	7	2077	1311	0	63	56	
V/C Ratio(X)	0.31	0.10	0.09	0.00	0.24	0.14	
Avail Cap(c_a), veh/h	391	5667	4289	0	1368	1217	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	13.6	2.5	5.6	0.0	12.8	12.8	
Incr Delay (d2), s/veh	24.5	0.0	0.0	0.0	1.9	1.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.0	0.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	38.1	2.5	5.7	0.0	14.8	14.0	
LnGrp LOS	D	A	A	A	B	B	
Approach Vol, veh/h		217	122		23		
Approach Delay, s/veh		2.9	5.7		14.5		
Approach LOS		A	A		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				21.8	5.6	5.9	15.9
Change Period (Y+Rc), s				5.8	4.6	5.8	* 5.8
Max Green Setting (Gmax), s				43.6	21.0	6.0	* 33
Max Q Clear Time (g_c+I1), s				2.7	2.2	2.0	2.6
Green Ext Time (p_c), s				2.1	0.0	0.0	1.0

Intersection Summary

HCM 6th Ctrl Delay	4.6
HCM 6th LOS	A

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

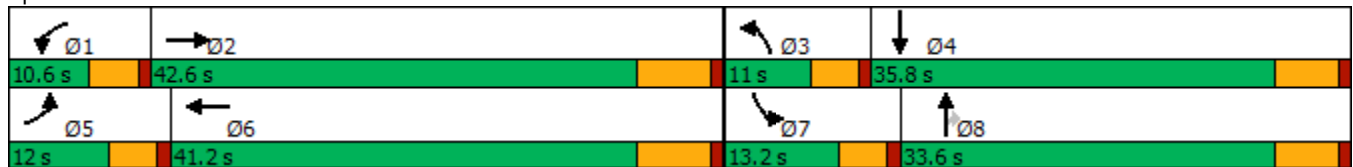


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	248	958	131	881	216	320	204	95	189
Future Volume (vph)	248	958	131	881	216	320	204	95	189
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	12.0	42.6	10.6	41.2	11.0	33.6	33.6	13.2	35.8
Total Split (%)	12.0%	42.6%	10.6%	41.2%	11.0%	33.6%	33.6%	13.2%	35.8%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary























Cycle Length: 100  
 Actuated Cycle Length: 95.9  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Meniffee Rd. & Scott Rd.



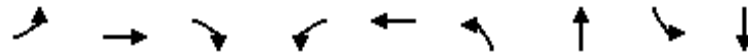
HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	958	305	131	881	135	216	320	204	95	189	120
Future Volume (veh/h)	248	958	305	131	881	135	216	320	204	95	189	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	253	978	300	134	899	132	220	327	149	97	193	103
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	1062	324	118	1187	174	126	428	358	124	261	139
Arrive On Green	0.08	0.40	0.40	0.07	0.38	0.38	0.07	0.23	0.23	0.07	0.23	0.23
Sat Flow, veh/h	1781	2672	815	1781	3109	456	1781	1870	1564	1781	1147	612
Grp Volume(v), veh/h	253	648	630	134	514	517	220	327	149	97	0	296
Grp Sat Flow(s),veh/h/ln	1781	1777	1711	1781	1777	1788	1781	1870	1564	1781	0	1759
Q Serve(g_s), s	7.4	31.3	31.7	6.0	22.7	22.7	6.4	14.8	7.3	4.8	0.0	14.1
Cycle Q Clear(g_c), s	7.4	31.3	31.7	6.0	22.7	22.7	6.4	14.8	7.3	4.8	0.0	14.1
Prop In Lane	1.00		0.48	1.00		0.26	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	146	706	680	118	679	683	126	428	358	124	0	400
V/C Ratio(X)	1.74	0.92	0.93	1.13	0.76	0.76	1.74	0.76	0.42	0.78	0.00	0.74
Avail Cap(c_a), veh/h	146	709	683	118	682	686	126	575	481	169	0	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.5	25.8	26.0	42.2	24.3	24.3	42.0	32.6	29.7	41.4	0.0	32.4
Incr Delay (d2), s/veh	357.8	18.9	20.5	123.2	7.7	7.7	365.8	10.6	2.9	15.1	0.0	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	15.1	14.9	6.5	9.8	9.8	15.5	7.5	2.9	2.5	0.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	399.3	44.8	46.5	165.4	32.0	32.0	407.8	43.1	32.6	56.5	0.0	42.2
LnGrp LOS	F	D	D	F	C	C	F	D	C	E	A	D
Approach Vol, veh/h		1531			1165			696			393	
Approach Delay, s/veh		104.1			47.3			156.1			45.8	
Approach LOS		F			D			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	42.4	11.0	26.4	12.0	41.0	10.9	26.5				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	6.0	36.1	6.4	30.0	7.4	34.7	8.6	27.8				
Max Q Clear Time (g_c+I1), s	8.0	33.7	8.4	16.1	9.4	24.7	6.8	16.8				
Green Ext Time (p_c), s	0.0	2.2	0.0	3.0	0.0	7.9	0.0	3.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				90.1								
HCM 6th LOS				F								

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/06/2021

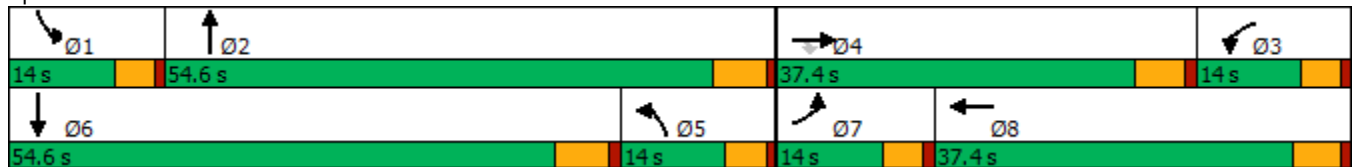


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑	↗	↘	↕	↘	↕	↘	↕
Traffic Volume (vph)	79	11	76	21	10	89	722	14	470
Future Volume (vph)	79	11	76	21	10	89	722	14	470
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 63.1  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	11	76	21	10	6	89	722	38	14	470	36
Future Volume (veh/h)	79	11	76	21	10	6	89	722	38	14	470	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	12	61	23	11	4	97	785	39	15	511	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	296	246	83	370	126	238	1498	74	39	1028	70
Arrive On Green	0.07	0.16	0.16	0.05	0.14	0.14	0.13	0.44	0.44	0.02	0.30	0.30
Sat Flow, veh/h	1781	1870	1555	1781	2586	880	1781	3441	171	1781	3375	231
Grp Volume(v), veh/h	86	12	61	23	7	8	97	405	419	15	268	278
Grp Sat Flow(s),veh/h/ln	1781	1870	1555	1781	1777	1689	1781	1777	1835	1781	1777	1829
Q Serve(g_s), s	2.9	0.3	2.2	0.8	0.2	0.2	3.1	10.5	10.5	0.5	7.8	7.8
Cycle Q Clear(g_c), s	2.9	0.3	2.2	0.8	0.2	0.2	3.1	10.5	10.5	0.5	7.8	7.8
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.09	1.00		0.13
Lane Grp Cap(c), veh/h	132	296	246	83	254	242	238	774	799	39	541	557
V/C Ratio(X)	0.65	0.04	0.25	0.28	0.03	0.03	0.41	0.52	0.52	0.38	0.50	0.50
Avail Cap(c_a), veh/h	267	954	793	267	907	862	267	1383	1428	267	1383	1423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	22.4	23.1	28.9	23.1	23.1	24.9	12.9	12.9	30.2	17.9	17.9
Incr Delay (d2), s/veh	5.3	0.3	2.4	1.8	0.2	0.2	1.1	2.1	2.0	6.0	2.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	0.9	0.3	0.1	0.1	1.3	3.8	3.9	0.3	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	22.6	25.5	30.7	23.3	23.4	26.0	15.1	15.0	36.3	20.6	20.5
LnGrp LOS	C	C	C	C	C	C	C	B	B	D	C	C
Approach Vol, veh/h		159			38			921			561	
Approach Delay, s/veh		29.6			27.8			16.2			21.0	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	33.1	8.3	15.3	14.2	24.9	9.3	14.4				
Change Period (Y+Rc), s	4.6	5.8	5.4	* 5.4	5.8	* 5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	* 32	9.4	* 49	9.4	32.0				
Max Q Clear Time (g_c+I1), s	2.5	12.5	2.8	4.2	5.1	9.8	4.9	2.2				
Green Ext Time (p_c), s	0.0	14.7	0.0	0.8	0.1	9.1	0.1	0.1				

Intersection Summary

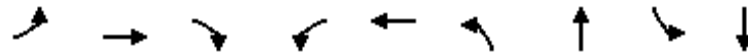
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
12/06/2021

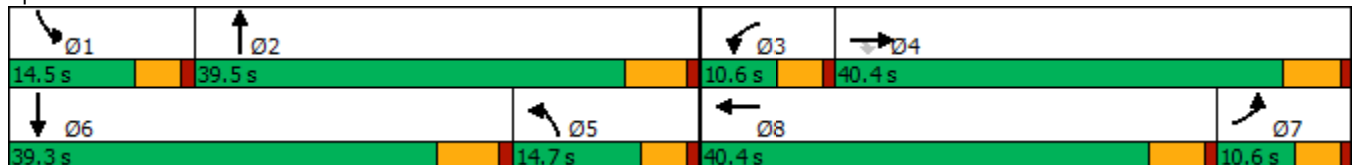


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	21	9	158	60	2	136	1103	11	741
Future Volume (vph)	21	9	158	60	2	136	1103	11	741
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	14.7	39.5	14.5	39.3
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	14.0%	37.6%	13.8%	37.4%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 105  
 Actuated Cycle Length: 68.9  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.





HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑↓		↖	↑↓		↖	↑↓	
Traffic Volume (veh/h)	21	9	158	60	2	7	136	1103	54	11	741	8
Future Volume (veh/h)	21	9	158	60	2	7	136	1103	54	11	741	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	9	88	62	2	7	142	1149	52	11	772	7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	323	268	110	319	281	202	1518	69	30	1169	11
Arrive On Green	0.04	0.17	0.17	0.06	0.18	0.18	0.11	0.44	0.44	0.02	0.32	0.32
Sat Flow, veh/h	1781	1870	1556	1781	1777	1566	1781	3457	156	1781	3608	33
Grp Volume(v), veh/h	22	9	88	62	2	7	142	590	611	11	380	399
Grp Sat Flow(s),veh/h/ln	1781	1870	1556	1781	1777	1566	1781	1777	1837	1781	1777	1864
Q Serve(g_s), s	0.8	0.3	2.1	2.2	0.1	0.2	5.1	18.4	18.4	0.4	12.1	12.1
Cycle Q Clear(g_c), s	0.8	0.3	2.1	2.2	0.1	0.2	5.1	18.4	18.4	0.4	12.1	12.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.02
Lane Grp Cap(c), veh/h	76	323	268	110	319	281	202	780	807	30	576	604
V/C Ratio(X)	0.29	0.03	0.33	0.56	0.01	0.02	0.70	0.76	0.76	0.37	0.66	0.66
Avail Cap(c_a), veh/h	162	995	828	162	945	833	273	910	941	268	905	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	22.6	10.3	30.0	22.2	22.3	28.1	15.5	15.5	32.0	19.1	19.1
Incr Delay (d2), s/veh	2.1	0.0	1.0	4.4	0.0	0.0	5.0	3.7	3.6	7.6	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	1.1	1.0	0.0	0.1	2.2	6.7	6.9	0.2	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	22.7	11.3	34.5	22.2	22.3	33.1	19.2	19.1	39.6	21.2	21.1
LnGrp LOS	C	C	B	C	C	C	C	B	B	D	C	C
Approach Vol, veh/h		119			71			1343			790	
Approach Delay, s/veh		16.1			32.9			20.7			21.4	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	34.7	8.7	16.7	13.3	27.1	8.2	17.2				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	5.8	* 5.8	5.4	* 5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	10.1	* 34	6.0	* 35				
Max Q Clear Time (g_c+I1), s	2.4	20.4	4.2	4.1	7.1	14.1	2.8	2.2				
Green Ext Time (p_c), s	0.0	8.3	0.0	0.4	0.1	6.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↓			↑↓
Traffic Vol, veh/h	14	14	1280	14	14	945
Future Vol, veh/h	14	14	1280	14	14	945
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	15	1347	15	15	995

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1884	682	0	0	1363	0
Stage 1	1356	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	62	392	-	-	500	-
Stage 1	205	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	58	392	-	-	500	-
Mov Cap-2 Maneuver	185	-	-	-	-	-
Stage 1	205	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.2	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	251	500
HCM Lane V/C Ratio	-	-	0.117	0.029
HCM Control Delay (s)	-	-	21.2	12.4
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.4	0.1

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/06/2021

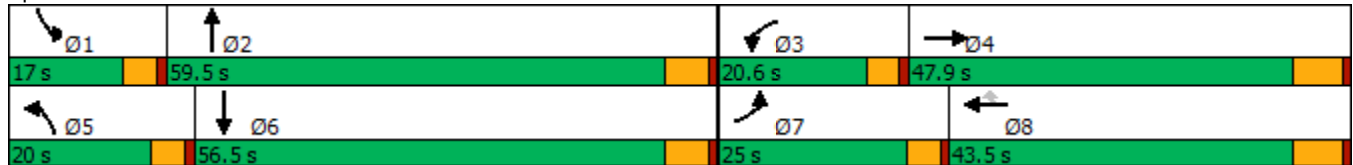


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↕↕↕	↔↔	↕↕↕	↔	↔	↕↕	↔	↕↕
Traffic Volume (vph)	684	1051	383	756	175	311	1157	260	768
Future Volume (vph)	684	1051	383	756	175	311	1157	260	768
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	25.0	47.9	20.6	43.5	43.5	20.0	59.5	17.0	56.5
Total Split (%)	17.2%	33.0%	14.2%	30.0%	30.0%	13.8%	41.0%	11.7%	39.0%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated































Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 		 	 	
Traffic Volume (veh/h)	684	1051	398	383	756	175	311	1157	273	260	768	409
Future Volume (veh/h)	684	1051	398	383	756	175	311	1157	273	260	768	409
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	777	1194	417	435	859	181	353	1315	130	295	873	460
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1067	372	381	1303	403	189	1210	119	152	788	410
Arrive On Green	0.14	0.29	0.29	0.11	0.26	0.26	0.11	0.37	0.37	0.09	0.35	0.35
Sat Flow, veh/h	3456	3735	1303	3456	5106	1578	1781	3268	322	1781	2254	1173
Grp Volume(v), veh/h	777	1088	523	435	859	181	353	713	732	295	686	647
Grp Sat Flow(s),veh/h/ln	1728	1702	1634	1728	1702	1578	1781	1777	1812	1781	1777	1650
Q Serve(g_s), s	20.4	41.4	41.4	16.0	21.8	14.0	15.4	53.7	53.7	12.4	50.7	50.7
Cycle Q Clear(g_c), s	20.4	41.4	41.4	16.0	21.8	14.0	15.4	53.7	53.7	12.4	50.7	50.7
Prop In Lane	1.00		0.80	1.00		1.00	1.00		0.18	1.00		0.71
Lane Grp Cap(c), veh/h	486	972	467	381	1303	403	189	658	671	152	621	577
V/C Ratio(X)	1.60	1.12	1.12	1.14	0.66	0.45	1.87	1.08	1.09	1.94	1.10	1.12
Avail Cap(c_a), veh/h	486	972	467	381	1303	403	189	658	671	152	621	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	51.8	51.8	64.5	48.4	45.4	64.8	45.7	45.7	66.3	47.2	47.2
Incr Delay (d2), s/veh	278.7	67.5	79.0	90.2	1.7	1.7	409.2	59.7	62.1	444.6	67.9	75.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.6	26.3	26.7	11.7	9.3	5.6	28.4	33.7	34.8	24.4	33.3	32.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	341.0	119.3	130.8	154.7	50.0	47.1	474.0	105.4	107.8	510.9	115.1	122.8
LnGrp LOS	F	F	F	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		2388			1475			1798			1628	
Approach Delay, s/veh		194.0			80.5			178.7			189.9	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	59.5	20.6	47.9	20.0	56.5	25.0	43.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	12.4	53.7	16.0	41.4	15.4	50.7	20.4	37.0				
Max Q Clear Time (g_c+I1), s	14.4	55.7	18.0	43.4	17.4	52.7	22.4	23.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9				

Intersection Summary

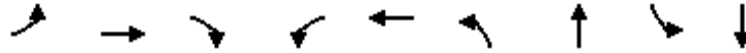
HCM 6th Ctrl Delay	166.4
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)  
12/06/2021

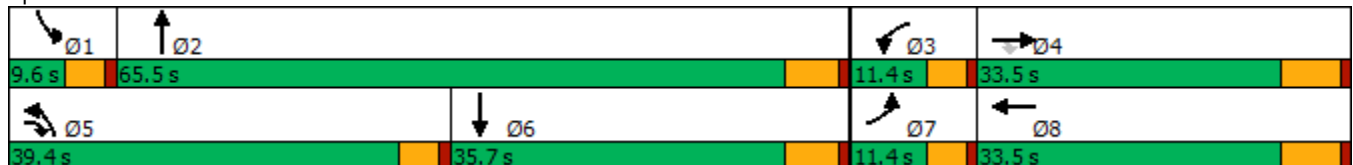


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↖↖	↑↑	↖↖	↑↑
Traffic Volume (vph)	186	573	839	161	399	783	363	7	236
Future Volume (vph)	186	573	839	161	399	783	363	7	236
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	11.4	33.5	39.4	11.4	33.5	39.4	65.5	9.6	35.7
Total Split (%)	9.5%	27.9%	32.8%	9.5%	27.9%	32.8%	54.6%	8.0%	29.8%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 92.2  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated































Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	186	573	839	161	399	14	783	363	77	7	236	158
Future Volume (veh/h)	186	573	839	161	399	14	783	363	77	7	236	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	194	597	699	168	416	9	816	378	55	7	246	118
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	1035	880	236	1018	22	913	1245	180	31	340	158
Arrive On Green	0.07	0.29	0.29	0.07	0.29	0.29	0.26	0.40	0.40	0.01	0.14	0.14
Sat Flow, veh/h	3456	3554	1585	3456	3557	77	3456	3116	450	3456	2355	1095
Grp Volume(v), veh/h	194	597	699	168	208	217	816	214	219	7	184	180
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1857	1728	1777	1789	1728	1777	1673
Q Serve(g_s), s	5.1	13.3	27.0	4.4	8.7	8.8	21.1	7.6	7.8	0.2	9.1	9.6
Cycle Q Clear(g_c), s	5.1	13.3	27.0	4.4	8.7	8.8	21.1	7.6	7.8	0.2	9.1	9.6
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.25	1.00		0.65
Lane Grp Cap(c), veh/h	254	1035	880	236	509	532	913	710	715	31	256	241
V/C Ratio(X)	0.77	0.58	0.79	0.71	0.41	0.41	0.89	0.30	0.31	0.23	0.72	0.75
Avail Cap(c_a), veh/h	254	1035	880	254	518	541	1298	1145	1153	186	573	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	28.0	16.4	42.3	26.7	26.7	32.9	19.0	19.0	45.6	37.8	38.0
Incr Delay (d2), s/veh	11.8	0.8	5.1	6.8	0.5	0.5	4.8	0.2	0.2	1.4	3.7	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.2	10.8	2.0	3.5	3.7	8.8	2.9	3.0	0.1	4.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	28.8	21.4	49.0	27.2	27.2	37.7	19.2	19.3	47.0	41.6	42.6
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	D	D
Approach Vol, veh/h		1490			593			1249			371	
Approach Delay, s/veh		28.6			33.4			31.3			42.2	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	42.8	10.9	33.5	29.1	19.2	11.4	33.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	59.7	6.8	27.0	34.8	29.9	6.8	27.0				
Max Q Clear Time (g_c+1), s	2.2	9.8	6.4	29.0	23.1	11.6	7.1	10.8				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	1.4	1.8	0.0	1.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				31.6								
HCM 6th LOS				C								

**APPENDIX 5.2:**

**OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS INTERSECTION  
OPERATIONS ANALYSIS WORKSHEETS**

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Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

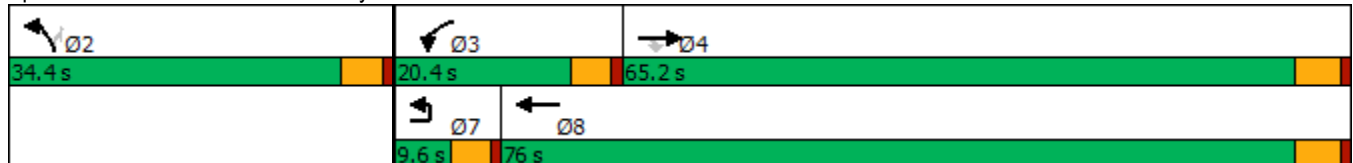


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	720	443	151	1125	304	87	
Future Volume (vph)	720	443	151	1125	304	87	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	65.2	65.2	20.4	76.0	34.4	34.4	9.6
Total Split (%)	54.3%	54.3%	17.0%	63.3%	28.7%	28.7%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 104  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	→	↷	↰	→	↷	↷
Traffic Volume (veh/h)	0	720	443	151	1125	304	87
Future Volume (veh/h)	0	720	443	151	1125	304	87
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		750	327	157	1172	317	82
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1855	827	192	1276	368	327
Arrive On Green		0.52	0.52	0.11	0.68	0.21	0.21
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		750	327	157	1172	317	82
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		11.2	10.9	7.6	46.9	15.1	3.8
Cycle Q Clear(g_c), s		11.2	10.9	7.6	46.9	15.1	3.8
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1855	827	192	1276	368	327
V/C Ratio(X)		0.40	0.40	0.82	0.92	0.86	0.25
Avail Cap(c_a), veh/h		2431	1084	320	1509	602	536
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		12.7	12.6	38.3	11.9	33.7	29.2
Incr Delay (d2), s/veh		0.1	0.3	3.2	8.4	7.1	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		4.1	3.6	3.4	17.6	7.1	1.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		12.9	13.0	41.6	20.3	40.8	29.6
LnGrp LOS		B	B	D	C	D	C
Approach Vol, veh/h		1077			1329	399	
Approach Delay, s/veh		12.9			22.8	38.5	
Approach LOS		B			C	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		22.8	14.1	51.0			65.0
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 30	15.8	60.1			70.9
Max Q Clear Time (g_c+I1), s		17.1	9.6	13.2			48.9
Green Ext Time (p_c), s		1.0	0.1	7.5			11.1

Intersection Summary

HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1007	143	427	1329	87	132	91	385	132	69	61
Future Volume (vph)	34	1007	143	427	1329	87	132	91	385	132	69	61
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	34.8	34.8	42.8	42.8	42.8	11.8	11.8	11.8
Total Split (s)	10.6	34.2	34.2	23.0	46.6	46.6	42.8	42.8	42.8	42.8	42.8	42.8
Total Split (%)	10.6%	34.2%	34.2%	23.0%	46.6%	46.6%	42.8%	42.8%	42.8%	42.8%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 81.6  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated




























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

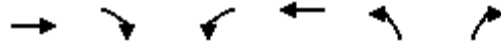
Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	34	1007	143	427	1329	87	132	91	385	132	69	61
Future Volume (veh/h)	34	1007	143	427	1329	87	132	91	385	132	69	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1049	123	445	1384	66	138	95	260	138	72	59
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	1199	520	405	1864	810	346	440	363	287	440	367
Arrive On Green	0.04	0.34	0.34	0.23	0.52	0.52	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3554	1542	1781	3554	1545	1259	1870	1545	1020	1870	1563
Grp Volume(v), veh/h	35	1049	123	445	1384	66	138	95	260	138	72	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1542	1781	1777	1545	1259	1870	1545	1020	1870	1563
Q Serve(g_s), s	1.6	22.5	4.6	18.4	24.5	1.7	7.9	3.3	12.5	10.2	2.5	2.4
Cycle Q Clear(g_c), s	1.6	22.5	4.6	18.4	24.5	1.7	10.4	3.3	12.5	13.5	2.5	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	72	1199	520	405	1864	810	346	440	363	287	440	367
V/C Ratio(X)	0.49	0.87	0.24	1.10	0.74	0.08	0.40	0.22	0.72	0.48	0.16	0.16
Avail Cap(c_a), veh/h	132	1247	541	405	1864	810	626	855	707	514	855	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	25.2	19.3	31.3	15.0	9.6	28.8	24.9	28.5	30.4	24.6	24.6
Incr Delay (d2), s/veh	5.0	7.2	0.3	74.0	1.8	0.1	0.9	0.3	3.3	1.6	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.6	1.6	15.6	8.5	0.5	2.4	1.5	4.8	2.6	1.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	32.4	19.6	105.3	16.7	9.6	29.7	25.2	31.8	31.9	24.8	24.9
LnGrp LOS	D	C	B	F	B	A	C	C	C	C	C	C
Approach Vol, veh/h		1207			1895			493			269	
Approach Delay, s/veh		31.4			37.3			29.9			28.5	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	33.1		24.8	7.9	48.2		24.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	18.4	28.4		37.0	6.0	40.8		37.0				
Max Q Clear Time (g_c+1), s	20.4	24.5		15.5	3.6	26.5		14.5				
Green Ext Time (p_c), s	0.0	2.8		1.5	0.0	9.8		2.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				33.9								
HCM 6th LOS				C								

Timings

3: California Oaks St. & Clinton Keith Rd.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1491	157	698	1589	133	489
Future Volume (vph)	1491	157	698	1589	133	489
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	33.8	33.8	10.6	15.8	33.8	33.8
Total Split (s)	49.2	49.2	47.0	96.2	33.8	33.8
Total Split (%)	37.8%	37.8%	36.2%	74.0%	26.0%	26.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 130  
 Actuated Cycle Length: 114.7  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (veh/h)	1491	157	698	1589	133	489
Future Volume (veh/h)	1491	157	698	1589	133	489
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1521	160	712	1621	136	499
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1230	547	603	2563	332	591
Arrive On Green	0.35	0.35	0.34	0.72	0.19	0.19
Sat Flow, veh/h	3647	1580	1781	3647	1781	3170
Grp Volume(v), veh/h	1521	160	712	1621	136	499
Grp Sat Flow(s),veh/h/ln	1777	1580	1781	1777	1781	1585
Q Serve(g_s), s	43.4	9.2	42.4	29.3	8.4	19.1
Cycle Q Clear(g_c), s	43.4	9.2	42.4	29.3	8.4	19.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1230	547	603	2563	332	591
V/C Ratio(X)	1.24	0.29	1.18	0.63	0.41	0.84
Avail Cap(c_a), veh/h	1230	547	603	2563	398	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	29.8	41.5	9.0	44.9	49.3
Incr Delay (d2), s/veh	113.5	0.4	98.0	0.6	1.3	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.5	3.5	34.1	9.4	3.8	8.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	154.4	30.2	139.5	9.5	46.2	58.3
LnGrp LOS	F	C	F	A	D	E
Approach Vol, veh/h	1681			2333	635	
Approach Delay, s/veh	142.6			49.2	55.7	
Approach LOS	F			D	E	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	47.0	49.2			96.2	29.2
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	42.4	43.4			90.4	28.0
Max Q Clear Time (g_c+I1), s	44.4	45.4			31.3	21.1
Green Ext Time (p_c), s	0.0	0.0			26.4	2.3

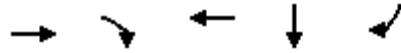
Intersection Summary

HCM 6th Ctrl Delay	83.9
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

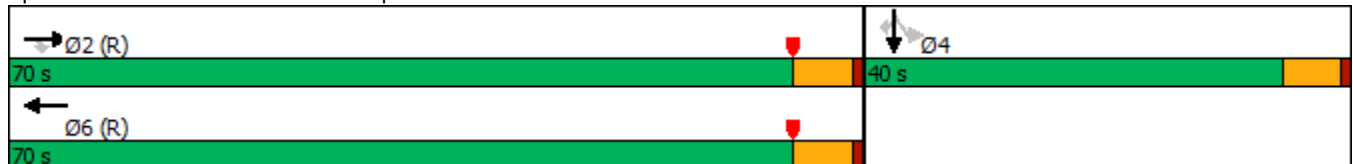


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	2030	715	1176	5	510
Future Volume (vph)	2030	715	1176	5	510
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	2030	715	0	1176	860	0	0	0	442	5	510
Future Volume (veh/h)	0	2030	715	0	1176	860	0	0	0	442	5	510
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2160	761	0	1251	915				470	5	543
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3091	946	0	2061	940				510	5	807
Arrive On Green	0.00	0.61	0.61	0.00	1.00	1.00				0.29	0.29	0.29
Sat Flow, veh/h	0	5274	1563	0	3572	1552				1763	19	2790
Grp Volume(v), veh/h	0	2160	761	0	1251	915				475	0	543
Grp Sat Flow(s),veh/h/ln	0	1702	1563	0	1702	1552				1782	0	1395
Q Serve(g_s), s	0.0	31.8	41.2	0.0	0.0	0.0				28.4	0.0	18.9
Cycle Q Clear(g_c), s	0.0	31.8	41.2	0.0	0.0	0.0				28.4	0.0	18.9
Prop In Lane	0.00		1.00	0.00		1.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	3091	946	0	2061	940				515	0	807
V/C Ratio(X)	0.00	0.70	0.80	0.00	0.61	0.97				0.92	0.00	0.67
Avail Cap(c_a), veh/h	0	3091	946	0	2061	940				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.38	0.38				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.8	16.7	0.0	0.0	0.0				37.9	0.0	34.5
Incr Delay (d2), s/veh	0.0	1.3	7.2	0.0	0.5	12.9				19.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.0	14.5	0.0	0.1	3.4				14.8	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.2	23.9	0.0	0.5	12.9				57.4	0.0	35.9
LnGrp LOS	A	B	C	A	A	B				E	A	D
Approach Vol, veh/h		2921			2166						1018	
Approach Delay, s/veh		18.2			5.7						45.9	
Approach LOS		B			A						D	
Timer - Assigned Phs		2			4						6	
Phs Duration (G+Y+Rc), s		72.4			37.6						72.4	
Change Period (Y+Rc), s		5.8			5.8						5.8	
Max Green Setting (Gmax), s		64.2			34.2						64.2	
Max Q Clear Time (g_c+I1), s		43.2			30.4						2.0	
Green Ext Time (p_c), s		13.6			1.4						17.0	
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			18.4									
HCM 6th LOS			B									



Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

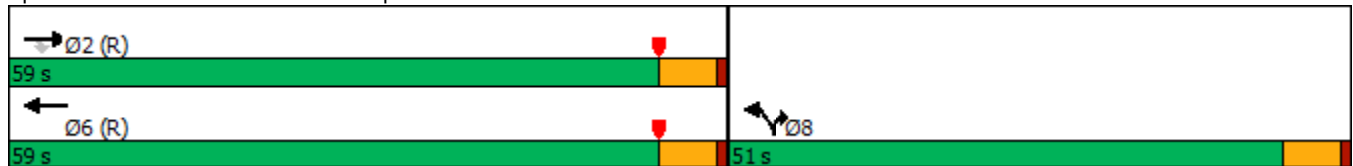


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑
Traffic Volume (vph)	1547	925	1644	393	1033
Future Volume (vph)	1547	925	1644	393	1033
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	43.8	43.8	22.0	22.0	22.0
Total Split (s)	59.0	59.0	59.0	51.0	51.0
Total Split (%)	53.6%	53.6%	53.6%	46.4%	46.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

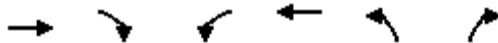
Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 12 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1547	925	0	1644	393	1033
Future Volume (veh/h)	1547	925	0	1644	393	1033
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1682	0	0	1787	752	775
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2469		0	2469	732	651
Arrive On Green	0.97	0.00	0.00	0.48	0.41	0.41
Sat Flow, veh/h	5274	1585	0	5443	1781	1585
Grp Volume(v), veh/h	1682	0	0	1787	752	775
Grp Sat Flow(s),veh/h/ln	1702	1585	0	1702	1781	1585
Q Serve(g_s), s	3.5	0.0	0.0	30.6	45.2	45.2
Cycle Q Clear(g_c), s	3.5	0.0	0.0	30.6	45.2	45.2
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2469		0	2469	732	651
V/C Ratio(X)	0.68		0.00	0.72	1.03	1.19
Avail Cap(c_a), veh/h	2469		0	2469	732	651
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	1.0	0.0	0.0	22.6	32.4	32.4
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.2	40.4	100.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	11.2	26.7	34.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.0	0.0	0.0	22.7	72.8	132.6
LnGrp LOS	A		A	C	F	F
Approach Vol, veh/h	1682	A		1787	1527	
Approach Delay, s/veh	2.0			22.7	103.2	
Approach LOS	A			C	F	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		59.0			59.0	51.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		53.2			53.2	45.2
Max Q Clear Time (g_c+I1), s		5.5			32.6	47.2
Green Ext Time (p_c), s		10.2			8.9	0.0

Intersection Summary

HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D
































Notes

User approved volume balancing among the lanes for turning movement.  
Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

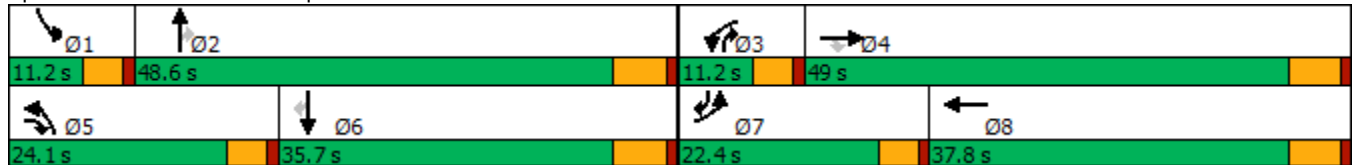
12/07/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 		 	  	 	 		 			
Traffic Volume (vph)	250	723	373	131	873	288	164	74	93	191	439	
Future Volume (vph)	250	723	373	131	873	288	164	74	93	191	439	
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	
Protected Phases	7	4	5	3	8	5	2	3	1	6	7	
Permitted Phases			4					2			6	
Detector Phase	7	4	5	3	8	5	2	3	1	6	7	
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6	
Total Split (s)	22.4	49.0	24.1	11.2	37.8	24.1	48.6	11.2	11.2	35.7	22.4	
Total Split (%)	18.7%	40.8%	20.1%	9.3%	31.5%	20.1%	40.5%	9.3%	9.3%	29.8%	18.7%	
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 89.6  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	723	373	131	873	76	288	164	74	93	191	439
Future Volume (veh/h)	250	723	373	131	873	76	288	164	74	93	191	439
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	275	795	263	144	959	79	316	180	43	102	210	386
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	1120	686	217	1310	108	407	1061	573	130	474	569
Arrive On Green	0.11	0.32	0.32	0.06	0.27	0.27	0.12	0.30	0.30	0.07	0.25	0.25
Sat Flow, veh/h	3456	3554	1585	3456	4808	395	3456	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	275	795	263	144	678	360	316	180	43	102	210	386
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1799	1728	1777	1585	1781	1870	1585
Q Serve(g_s), s	6.4	16.4	9.4	3.4	15.0	15.1	7.4	3.1	1.5	4.7	7.8	17.1
Cycle Q Clear(g_c), s	6.4	16.4	9.4	3.4	15.0	15.1	7.4	3.1	1.5	4.7	7.8	17.1
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	364	1120	686	217	928	490	407	1061	573	130	474	569
V/C Ratio(X)	0.76	0.71	0.38	0.66	0.73	0.73	0.78	0.17	0.08	0.79	0.44	0.68
Avail Cap(c_a), veh/h	742	1851	1013	275	1314	694	813	1834	918	142	674	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	25.1	16.0	38.0	27.4	27.4	35.5	21.5	17.4	37.8	26.0	22.5
Incr Delay (d2), s/veh	1.2	0.8	0.4	2.0	1.3	2.4	1.2	0.1	0.1	20.5	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.4	3.1	1.4	5.7	6.3	3.0	1.2	0.5	2.7	3.3	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	25.9	16.3	40.0	28.7	29.8	36.7	21.6	17.4	58.3	26.7	24.2
LnGrp LOS	D	C	B	D	C	C	D	C	B	E	C	C
Approach Vol, veh/h		1333			1182			539			698	
Approach Delay, s/veh		26.4			30.4			30.1			29.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	30.5	9.8	31.9	14.4	26.8	13.3	28.4				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	6.6	42.8	6.6	43.2	19.5	29.9	17.8	32.0				
Max Q Clear Time (g_c+I1), s	6.7	5.1	5.4	18.4	9.4	19.1	8.4	17.1				
Green Ext Time (p_c), s	0.0	1.2	0.0	6.3	0.4	1.9	0.3	5.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				28.8								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	9	203	16	47	354
Future Vol, veh/h	3	9	203	16	47	354
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	10	221	17	51	385

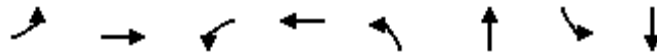
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	717	230	0	0	238
Stage 1	230	-	-	-	-
Stage 2	487	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	396	809	-	-	1329
Stage 1	808	-	-	-	-
Stage 2	618	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	377	809	-	-	1329
Mov Cap-2 Maneuver	473	-	-	-	-
Stage 1	808	-	-	-	-
Stage 2	588	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	687	1329
HCM Lane V/C Ratio	-	-	0.019	0.038
HCM Control Delay (s)	-	-	10.3	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Timings  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)  
06/21/2022

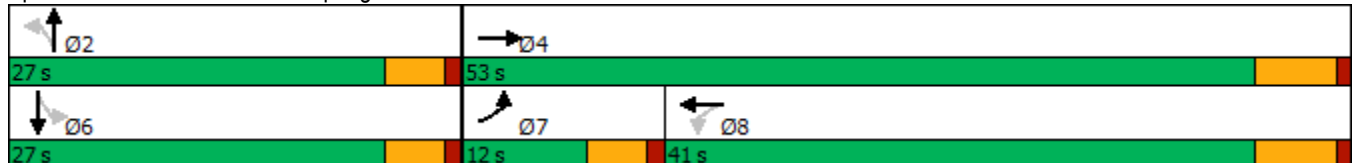


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↗
Traffic Volume (vph)	8	161	63	302	5	5	6	5
Future Volume (vph)	8	161	63	302	5	5	6	5
Turn Type	Prot	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	7	4		8		2		6
Permitted Phases			8		2		6	
Detector Phase	7	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	6.0	10.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	15.8	38.8	38.8	22.6	22.6	25.6	25.6
Total Split (s)	12.0	53.0	41.0	41.0	27.0	27.0	27.0	27.0
Total Split (%)	15.0%	66.3%	51.3%	51.3%	33.8%	33.8%	33.8%	33.8%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary






















Cycle Length: 80  
 Actuated Cycle Length: 28.1  
 Natural Cycle: 75  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Warm Springs Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)  
06/21/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	161	5	63	302	11	5	5	39	6	5	11
Future Volume (veh/h)	8	161	5	63	302	11	5	5	39	6	5	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	166	5	68	311	10	5	5	42	6	5	2
Peak Hour Factor	0.97	0.97	0.92	0.92	0.97	0.97	0.92	0.92	0.92	0.97	0.92	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	1893	57	695	1260	40	378	156	139	345	112	45
Arrive On Green	0.01	0.54	0.54	0.36	0.36	0.36	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1781	3522	106	1214	3512	113	1404	1777	1585	1359	1270	508
Grp Volume(v), veh/h	8	83	88	68	157	164	5	5	42	6	0	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1851	1214	1777	1848	1404	1777	1585	1359	0	1778
Q Serve(g_s), s	0.1	0.6	0.6	1.1	1.7	1.7	0.1	0.1	0.7	0.1	0.0	0.1
Cycle Q Clear(g_c), s	0.1	0.6	0.6	1.1	1.7	1.7	0.2	0.1	0.7	0.8	0.0	0.1
Prop In Lane	1.00		0.06	1.00		0.06	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	23	955	995	695	637	663	378	156	139	345	0	156
V/C Ratio(X)	0.35	0.09	0.09	0.10	0.25	0.25	0.01	0.03	0.30	0.02	0.00	0.04
Avail Cap(c_a), veh/h	475	3022	3148	1799	2254	2344	1387	1434	1279	1322	0	1435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	3.1	3.1	6.0	6.3	6.3	11.7	11.6	11.9	12.2	0.0	11.6
Incr Delay (d2), s/veh	8.7	0.1	0.1	0.1	0.3	0.3	0.0	0.1	1.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.3	0.3	0.0	0.0	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	3.2	3.2	6.1	6.6	6.6	11.7	11.7	13.1	12.3	0.0	11.7
LnGrp LOS	C	A	A	A	A	A	B	B	B	B	A	B
Approach Vol, veh/h		179			389			52			13	
Approach Delay, s/veh		4.0			6.5			12.8			12.0	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		7.0		20.7		7.0	5.0	15.8				
Change Period (Y+Rc), s		4.6		5.8		4.6	4.6	5.8				
Max Green Setting (Gmax), s		22.4		47.2		22.4	7.4	35.2				
Max Q Clear Time (g_c+I1), s		2.7		2.6		2.8	2.1	3.7				
Green Ext Time (p_c), s		0.2		1.5		0.0	0.0	3.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				6.4								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	9	0	39	47	16
Future Vol, veh/h	0	9	0	39	47	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	42	51	17

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	34	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1032	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1032	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 1032	-	-
HCM Lane V/C Ratio	- 0.009	-	-
HCM Control Delay (s)	- 8.5	-	-
HCM Lane LOS	- A	-	-
HCM 95th %tile Q(veh)	- 0	-	-



Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	15	188	25	40	16
Future Vol, veh/h	15	15	188	25	40	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	204	27	43	17

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	474	30	60	0	0
Stage 1	52	-	-	-	-
Stage 2	422	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-
Pot Cap-1 Maneuver	519	1038	1542	-	-
Stage 1	964	-	-	-	-
Stage 2	629	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	450	1038	1542	-	-
Mov Cap-2 Maneuver	450	-	-	-	-
Stage 1	837	-	-	-	-
Stage 2	629	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	6.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1542	-	628	-	-
HCM Lane V/C Ratio	0.133	-	0.052	-	-
HCM Control Delay (s)	7.7	-	11	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.2	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	9	0	213	23	31
Future Vol, veh/h	0	9	0	213	23	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	232	25	34

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	30	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1038	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1038	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 1038	-	-
HCM Lane V/C Ratio	- 0.009	-	-
HCM Control Delay (s)	- 8.5	-	-
HCM Lane LOS	- A	-	-
HCM 95th %tile Q(veh)	- 0	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↗		↙	↗
Traffic Vol, veh/h	0	0	0	213	32	0
Future Vol, veh/h	0	0	0	213	32	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	232	35	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	232	0	-	0	116
Stage 1	-	-	-	-	116
Stage 2	-	-	-	-	0
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1336	-	-	-	880
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	-
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1336	-	-	-	880
Mov Cap-2 Maneuver	-	-	-	-	880
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1336	-	-	-	880	-
HCM Lane V/C Ratio	-	-	-	-	0.04	-
HCM Control Delay (s)	0	-	-	-	9.3	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	200	6	0	376	0	18
Future Vol, veh/h	200	6	0	376	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	217	7	0	409	0	20

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	112
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	920
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	920
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	920	-	-	-
HCM Lane V/C Ratio	0.021	-	-	-
HCM Control Delay (s)	9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	221	9	0	375	0	27
Future Vol, veh/h	221	9	0	375	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	240	10	0	408	0	29

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	125
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	902
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	902
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	902	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-
HCM Control Delay (s)	9.1	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

15: Running Rabbit Rd. & Street G

12/06/2021

Intersection							
Int Delay, s/veh	2.7						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	4		4		
Traffic Vol, veh/h	0	32	213	32	92	0	
Future Vol, veh/h	0	32	213	32	92	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	35	232	35	100	0	

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	267	0	0	285
Stage 1	-	-	-	250
Stage 2	-	-	-	35
Critical Hdwy	4.12	-	-	6.42
Critical Hdwy Stg 1	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	3.518
Pot Cap-1 Maneuver	1297	-	-	705
Stage 1	-	-	-	792
Stage 2	-	-	-	987
Platoon blocked, %	-	-	-	0
Mov Cap-1 Maneuver	1297	-	-	705
Mov Cap-2 Maneuver	-	-	-	705
Stage 1	-	-	-	792
Stage 2	-	-	-	987

Approach	EB	WB	SB	
HCM Control Delay, s	0	0	10.9	
HCM LOS			B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	1297	-	-	-	-	705
HCM Lane V/C Ratio	-	-	-	-	-	0.142
HCM Control Delay (s)	0	-	-	-	-	10.9
HCM Lane LOS	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0.5

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	123	236	3	0	9
Future Vol, veh/h	0	123	236	3	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	134	257	3	0	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	260	0	-	0	393
Stage 1	-	-	-	-	259
Stage 2	-	-	-	-	134
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1304	-	-	-	611
Stage 1	-	-	-	-	784
Stage 2	-	-	-	-	892
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1304	-	-	-	611
Mov Cap-2 Maneuver	-	-	-	-	611
Stage 1	-	-	-	-	784
Stage 2	-	-	-	-	892

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1304	-	-	-	780
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings  
17: Menifee Rd. & Scott Rd.

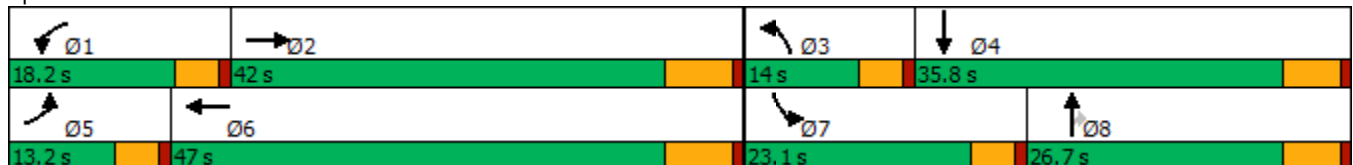


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	88	779	269	954	255	249	272	171	358
Future Volume (vph)	88	779	269	954	255	249	272	171	358
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	13.2	42.0	18.2	47.0	14.0	26.7	26.7	23.1	35.8
Total Split (%)	12.0%	38.2%	16.5%	42.7%	12.7%	24.3%	24.3%	21.0%	32.5%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated























Splits and Phases: 17: Menifee Rd. & Scott Rd.





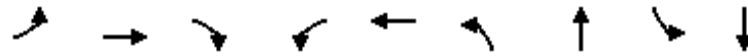
HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	779	181	269	954	137	255	249	272	171	358	143
Future Volume (veh/h)	88	779	181	269	954	137	255	249	272	171	358	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	856	188	296	1048	139	280	274	231	188	393	153
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	930	204	221	1184	157	153	441	368	219	348	136
Arrive On Green	0.07	0.32	0.32	0.12	0.38	0.38	0.09	0.24	0.24	0.12	0.27	0.27
Sat Flow, veh/h	1781	2897	636	1781	3145	417	1781	1870	1562	1781	1274	496
Grp Volume(v), veh/h	97	525	519	296	592	595	280	274	231	188	0	546
Grp Sat Flow(s),veh/h/ln	1781	1777	1756	1781	1777	1785	1781	1870	1562	1781	0	1770
Q Serve(g_s), s	5.9	31.2	31.3	13.6	34.1	34.2	9.4	14.4	14.6	11.4	0.0	30.0
Cycle Q Clear(g_c), s	5.9	31.2	31.3	13.6	34.1	34.2	9.4	14.4	14.6	11.4	0.0	30.0
Prop In Lane	1.00		0.36	1.00		0.23	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	122	570	563	221	669	672	153	441	368	219	0	484
V/C Ratio(X)	0.80	0.92	0.92	1.34	0.88	0.89	1.83	0.62	0.63	0.86	0.00	1.13
Avail Cap(c_a), veh/h	140	575	568	221	669	672	153	441	368	300	0	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.4	35.9	35.9	48.1	32.0	32.0	50.2	37.5	37.6	47.1	0.0	39.9
Incr Delay (d2), s/veh	24.1	22.5	22.7	180.4	15.7	15.9	399.9	5.6	6.9	16.2	0.0	80.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	16.0	15.8	16.8	16.2	16.3	21.0	7.0	6.1	5.8	0.0	23.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.4	58.4	58.6	228.5	47.7	47.9	450.0	43.2	44.5	63.4	0.0	120.8
LnGrp LOS	E	E	E	F	D	D	F	D	D	E	A	F
Approach Vol, veh/h		1141			1483			785			734	
Approach Delay, s/veh		59.9			83.8			188.7			106.1	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	41.7	14.0	35.8	12.1	47.8	18.1	31.7				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	13.6	35.5	9.4	30.0	8.6	40.5	18.5	20.9				
Max Q Clear Time (g_c+I1), s	15.6	33.3	11.4	32.0	7.9	36.2	13.4	16.6				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	3.8	0.2	1.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				101.0								
HCM 6th LOS				F								

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/07/2021

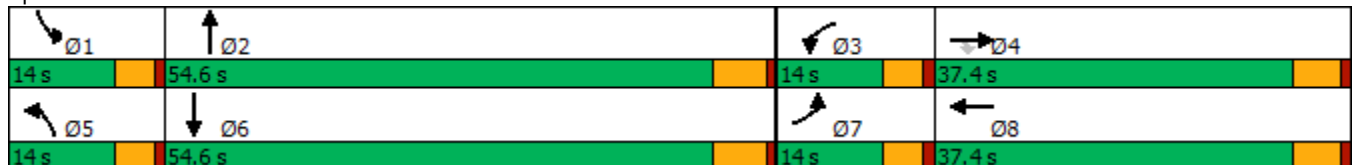


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	85	18	74	40	18	30	477	7	784
Future Volume (vph)	85	18	74	40	18	30	477	7	784
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 74.1  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated























Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



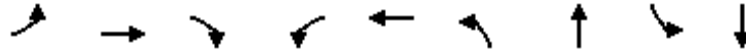
HCM 6th Signalized Intersection Summary  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	18	74	40	18	23	30	477	13	7	784	98
Future Volume (veh/h)	85	18	74	40	18	23	30	477	13	7	784	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	20	65	44	20	18	33	530	12	8	871	102
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	310	258	86	273	211	71	1756	40	22	1493	175
Arrive On Green	0.07	0.17	0.17	0.05	0.14	0.14	0.04	0.49	0.49	0.01	0.47	0.47
Sat Flow, veh/h	1781	1870	1555	1781	1887	1464	1781	3550	80	1781	3197	374
Grp Volume(v), veh/h	94	20	65	44	19	19	33	265	277	8	484	489
Grp Sat Flow(s),veh/h/ln	1781	1870	1555	1781	1777	1574	1781	1777	1853	1781	1777	1795
Q Serve(g_s), s	3.8	0.7	2.7	1.8	0.7	0.8	1.3	6.5	6.5	0.3	14.6	14.6
Cycle Q Clear(g_c), s	3.8	0.7	2.7	1.8	0.7	0.8	1.3	6.5	6.5	0.3	14.6	14.6
Prop In Lane	1.00		1.00	1.00		0.93	1.00		0.04	1.00		0.21
Lane Grp Cap(c), veh/h	124	310	258	86	257	227	71	879	917	22	830	838
V/C Ratio(X)	0.76	0.06	0.25	0.51	0.07	0.09	0.46	0.30	0.30	0.36	0.58	0.58
Avail Cap(c_a), veh/h	229	818	680	229	777	688	229	1185	1236	229	1185	1197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	25.7	26.6	34.0	27.1	27.1	34.4	11.0	11.0	35.9	14.3	14.3
Incr Delay (d2), s/veh	8.9	0.4	2.3	4.6	0.5	0.7	4.6	0.7	0.7	9.9	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.3	1.1	0.8	0.3	0.3	0.6	2.3	2.4	0.2	5.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	26.1	28.9	38.6	27.6	27.9	39.0	11.7	11.7	45.7	16.8	16.8
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		179			82			575			981	
Approach Delay, s/veh		35.7			33.5			13.3			17.0	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	42.0	8.1	17.5	7.5	40.0	9.7	16.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	32.0	9.4	48.8	9.4	32.0				
Max Q Clear Time (g_c+I1), s	2.3	8.5	3.8	4.7	3.3	16.6	5.8	2.8				
Green Ext Time (p_c), s	0.0	9.1	0.0	0.9	0.0	17.0	0.1	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			18.4									
HCM 6th LOS			B									

Timings  
19: Whitewood Rd. & Baxter Rd.

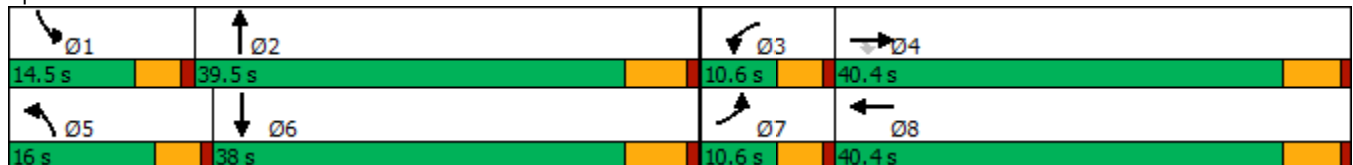


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	77	3	168	50	15	237	522	6	989
Future Volume (vph)	77	3	168	50	15	237	522	6	989
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	16.0	39.5	14.5	38.0
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	15.2%	37.6%	13.8%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary























Cycle Length: 105  
 Actuated Cycle Length: 76.1  
 Natural Cycle: 115  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	3	168	50	15	6	237	522	41	6	989	123
Future Volume (veh/h)	77	3	168	50	15	6	237	522	41	6	989	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	3	173	52	16	3	247	544	20	6	1030	124
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	271	230	93	399	72	265	1841	68	17	1237	149
Arrive On Green	0.06	0.14	0.14	0.05	0.13	0.13	0.15	0.53	0.53	0.01	0.39	0.39
Sat Flow, veh/h	1781	1870	1585	1781	2996	543	1781	3492	128	1781	3188	383
Grp Volume(v), veh/h	80	3	173	52	9	10	247	276	288	6	574	580
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1762	1781	1777	1843	1781	1777	1794
Q Serve(g_s), s	3.4	0.1	8.0	2.2	0.3	0.4	10.5	6.7	6.7	0.3	22.4	22.4
Cycle Q Clear(g_c), s	3.4	0.1	8.0	2.2	0.3	0.4	10.5	6.7	6.7	0.3	22.4	22.4
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.07	1.00		0.21
Lane Grp Cap(c), veh/h	114	271	230	93	237	235	265	937	972	17	690	696
V/C Ratio(X)	0.70	0.01	0.75	0.56	0.04	0.04	0.93	0.30	0.30	0.36	0.83	0.83
Avail Cap(c_a), veh/h	139	854	723	139	811	804	265	937	972	230	746	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	28.1	31.5	35.5	29.0	29.0	32.3	10.1	10.1	37.8	21.2	21.2
Incr Delay (d2), s/veh	11.4	0.0	6.7	5.1	0.1	0.1	37.6	0.3	0.3	12.5	8.1	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.3	1.0	0.1	0.2	6.9	2.2	2.3	0.2	9.6	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	28.1	38.2	40.6	29.0	29.1	69.9	10.4	10.4	50.2	29.3	29.4
LnGrp LOS	D	C	D	D	C	C	E	B	B	D	C	C
Approach Vol, veh/h		256			71			811			1160	
Approach Delay, s/veh		40.7			37.5			28.5			29.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	46.2	8.6	16.5	16.0	35.6	9.5	15.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	11.4	32.2	6.0	35.0				
Max Q Clear Time (g_c+I1), s	2.3	8.7	4.2	10.0	12.5	24.4	5.4	2.4				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.8	0.0	5.3	0.0	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			30.6									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	37	0	799	1194	13
Future Vol, veh/h	0	37	0	799	1194	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	0	868	1298	14

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	656	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	408	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	408	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 408	-	-
HCM Lane V/C Ratio	- 0.099	-	-
HCM Control Delay (s)	- 14.8	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.3	-	-

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	5	0	123	14	0	14	239	786	14	14	1217	0
Future Vol, veh/h	5	0	123	14	0	14	239	786	14	14	1217	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	91	92	92	91	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	134	15	0	15	260	864	15	15	1337	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2319	2766	669	2091	2759	440	1337	0	0	879	0	0
Stage 1	1367	1367	-	1392	1392	-	-	-	-	-	-	-
Stage 2	952	1399	-	699	1367	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	5	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*30	*14	*581	*63	*14	565	*869	-	-	764	-	-
Stage 1	*548	*480	-	*271	*207	-	-	-	-	-	-	-
Stage 2	*279	*206	-	*548	*480	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	*22	*10	*581	*37	*10	565	*869	-	-	764	-	-
Mov Cap-2 Maneuver	*150	*117	-	*119	*110	-	-	-	-	-	-	-
Stage 1	*384	*471	-	*190	*145	-	-	-	-	-	-	-
Stage 2	*190	*144	-	*414	*471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	26.6	2.5	0.1
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 869	-	-	522	197	764	-
HCM Lane V/C Ratio	0.299	-	-	0.267	0.154	0.02	-
HCM Control Delay (s)	10.9	-	-	14.4	26.6	9.8	-
HCM Lane LOS	B	-	-	B	D	A	-
HCM 95th %tile Q(veh)	1.3	-	-	1.1	0.5	0.1	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/07/2021



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↕↕↕	↔↔	↕↕↕	↔	↔	↕↕	↔	↕↕
Traffic Volume (vph)	400	952	284	1368	194	347	1133	634	1514
Future Volume (vph)	400	952	284	1368	194	347	1133	634	1514
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	14.0	47.0	15.0	48.0	48.0	16.0	59.0	24.0	67.0
Total Split (%)	9.7%	32.4%	10.3%	33.1%	33.1%	11.0%	40.7%	16.6%	46.2%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.





HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕↔		↔↔	↕↕↕	↔	↔	↕↔		↔	↕↔	
Traffic Volume (veh/h)	400	952	368	284	1368	194	347	1133	287	634	1514	272
Future Volume (veh/h)	400	952	368	284	1368	194	347	1133	287	634	1514	272
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.94	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	460	1094	423	326	1572	223	399	1302	330	729	1740	313
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	968	374	248	1461	427	140	1018	250	238	1268	219
Arrive On Green	0.06	0.28	0.28	0.07	0.29	0.29	0.08	0.37	0.37	0.13	0.42	0.42
Sat Flow, veh/h	3456	3466	1340	3456	5106	1494	1781	2774	682	1781	3004	519
Grp Volume(v), veh/h	460	1074	443	326	1572	223	399	819	813	729	1000	1053
Grp Sat Flow(s),veh/h/ln	1728	1702	1402	1728	1702	1494	1781	1777	1679	1781	1777	1747
Q Serve(g_s), s	9.4	40.5	40.5	10.4	41.5	18.2	11.4	53.2	53.2	19.4	61.2	61.2
Cycle Q Clear(g_c), s	9.4	40.5	40.5	10.4	41.5	18.2	11.4	53.2	53.2	19.4	61.2	61.2
Prop In Lane	1.00		0.96	1.00		1.00	1.00		0.41	1.00		0.30
Lane Grp Cap(c), veh/h	224	951	392	248	1461	427	140	652	616	238	750	737
V/C Ratio(X)	2.05	1.13	1.13	1.32	1.08	0.52	2.85	1.26	1.32	3.06	1.33	1.43
Avail Cap(c_a), veh/h	224	951	392	248	1461	427	140	652	616	238	750	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.8	52.3	52.3	67.3	51.8	43.4	66.8	45.9	45.9	62.8	41.9	41.9
Incr Delay (d2), s/veh	489.2	71.9	85.9	167.5	46.8	2.2	851.4	127.9	154.7	937.6	159.2	200.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	26.3	23.2	10.3	23.5	6.9	38.2	45.7	47.8	70.7	58.7	66.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	557.0	124.1	138.1	234.8	98.5	45.6	918.2	173.8	200.6	1000.4	201.1	242.4
LnGrp LOS	F	F	F	F	F	D	F	F	F	F	F	F
Approach Vol, veh/h		1977			2121			2031			2782	
Approach Delay, s/veh		228.0			113.9			330.8			426.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	59.0	15.0	47.0	16.0	67.0	14.0	48.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	19.4	53.2	10.4	40.5	11.4	61.2	9.4	41.5				
Max Q Clear Time (g_c+I1), s	21.4	55.2	12.4	42.5	13.4	63.2	11.4	43.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

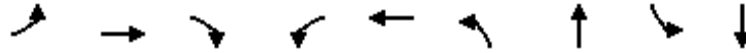
Intersection Summary

HCM 6th Ctrl Delay	286.1
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
24: Max Gilliss Blvd & Leon Rd.

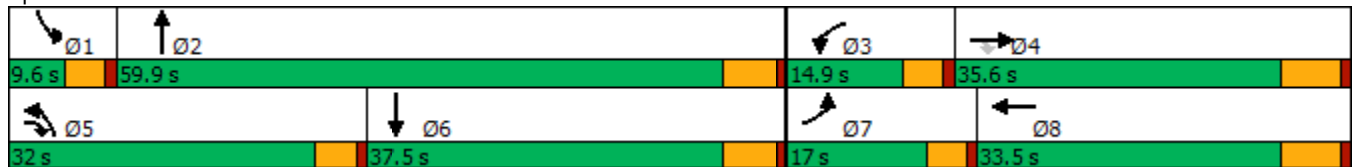


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↖↖	↑↑	↖↖	↑↑
Traffic Volume (vph)	298	350	683	221	568	582	266	18	479
Future Volume (vph)	298	350	683	221	568	582	266	18	479
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	17.0	35.6	32.0	14.9	33.5	32.0	59.9	9.6	37.5
Total Split (%)	14.2%	29.7%	26.7%	12.4%	27.9%	26.7%	49.9%	8.0%	31.3%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary































Cycle Length: 120  
 Actuated Cycle Length: 106.4  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	298	350	683	221	568	19	582	266	44	18	479	220
Future Volume (veh/h)	298	350	683	221	568	19	582	266	44	18	479	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	307	361	571	228	586	13	600	274	31	19	494	179
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	992	752	292	912	20	677	1320	148	70	599	216
Arrive On Green	0.11	0.28	0.28	0.08	0.26	0.26	0.20	0.41	0.41	0.02	0.23	0.23
Sat Flow, veh/h	3456	3554	1582	3456	3554	79	3456	3220	361	3456	2557	921
Grp Volume(v), veh/h	307	361	571	228	293	306	600	150	155	19	342	331
Grp Sat Flow(s),veh/h/ln	1728	1777	1582	1728	1777	1856	1728	1777	1804	1728	1777	1702
Q Serve(g_s), s	9.1	8.5	29.1	6.7	15.3	15.3	17.6	5.7	5.8	0.6	19.0	19.3
Cycle Q Clear(g_c), s	9.1	8.5	29.1	6.7	15.3	15.3	17.6	5.7	5.8	0.6	19.0	19.3
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.20	1.00		0.54
Lane Grp Cap(c), veh/h	370	992	752	292	456	476	677	728	740	70	416	398
V/C Ratio(X)	0.83	0.36	0.76	0.78	0.64	0.64	0.89	0.21	0.21	0.27	0.82	0.83
Avail Cap(c_a), veh/h	411	992	752	341	460	481	908	922	937	166	540	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	30.1	22.5	46.8	34.5	34.5	40.8	19.8	19.9	50.3	37.9	37.9
Incr Delay (d2), s/veh	11.1	0.2	4.5	8.0	3.0	2.9	6.8	0.1	0.1	0.8	7.8	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	3.4	11.1	3.1	6.6	6.9	7.8	2.2	2.3	0.2	8.8	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	30.4	27.0	54.7	37.5	37.4	47.6	20.0	20.0	51.1	45.6	46.5
LnGrp LOS	E	C	C	D	D	D	D	B	B	D	D	D
Approach Vol, veh/h		1239			827			905			692	
Approach Delay, s/veh		35.3			42.2			38.3			46.2	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	48.5	13.4	35.6	25.0	30.2	15.8	33.2				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	54.1	10.3	29.1	27.4	31.7	12.4	27.0				
Max Q Clear Time (g_c+I1), s	2.6	7.8	8.7	31.1	19.6	21.3	11.1	17.3				
Green Ext Time (p_c), s	0.0	1.7	0.1	0.0	0.8	2.8	0.1	2.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				39.7								
HCM 6th LOS				D								

Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

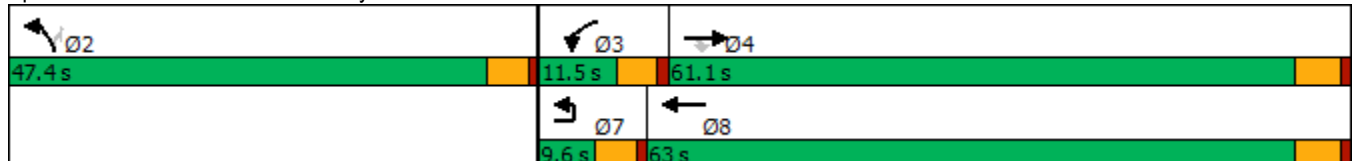


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↘	↑	↘	↗	
Traffic Volume (vph)	1174	277	106	1079	434	172	
Future Volume (vph)	1174	277	106	1079	434	172	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	61.1	61.1	11.5	63.0	47.4	47.4	9.6
Total Split (%)	50.9%	50.9%	9.6%	52.5%	39.5%	39.5%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 103.5  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↷	↰	↰	↷	↰	↰
Traffic Volume (veh/h)	0	1174	277	106	1079	434	172
Future Volume (veh/h)	0	1174	277	106	1079	434	172
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		1236	183	112	1136	457	162
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1736	774	129	1140	512	455
Arrive On Green		0.49	0.49	0.07	0.61	0.29	0.29
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		1236	183	112	1136	457	162
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		25.9	6.3	5.9	57.4	23.4	7.7
Cycle Q Clear(g_c), s		25.9	6.3	5.9	57.4	23.4	7.7
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1736	774	129	1140	512	455
V/C Ratio(X)		0.71	0.24	0.87	1.00	0.89	0.36
Avail Cap(c_a), veh/h		2095	934	129	1140	801	712
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		19.1	14.1	43.6	18.4	32.4	26.9
Incr Delay (d2), s/veh		0.9	0.2	40.4	25.8	8.2	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		10.1	2.2	4.0	29.0	10.9	2.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		20.0	14.2	84.0	44.2	40.6	27.3
LnGrp LOS		B	B	F	D	D	C
Approach Vol, veh/h		1419			1248	619	
Approach Delay, s/veh		19.2			47.8	37.2	
Approach LOS		B			D	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		32.0	11.5	51.5			63.0
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 43	6.9	56.0			57.9
Max Q Clear Time (g_c+I1), s		25.4	7.9	27.9			59.4
Green Ext Time (p_c), s		1.9	0.0	11.4			0.0

Intersection Summary

HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	1334	102	489	1170	123	89	87	445	148	62	33
Future Volume (vph)	56	1334	102	489	1170	123	89	87	445	148	62	33
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	31.8	31.8	31.8	31.8	31.8	11.8	11.8	11.8
Total Split (s)	15.0	48.2	48.2	30.0	63.2	63.2	31.8	31.8	31.8	31.8	31.8	31.8
Total Split (%)	13.6%	43.8%	43.8%	27.3%	57.5%	57.5%	28.9%	28.9%	28.9%	28.9%	28.9%	28.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 102.7  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



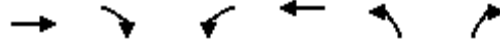
HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	1334	102	489	1170	123	89	87	445	148	62	33
Future Volume (veh/h)	56	1334	102	489	1170	123	89	87	445	148	62	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	1419	88	520	1245	97	95	93	208	157	66	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	1421	617	427	2105	918	300	389	323	247	389	325
Arrive On Green	0.05	0.40	0.40	0.24	0.59	0.59	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1543	1781	3554	1550	1297	1870	1555	1075	1870	1564
Grp Volume(v), veh/h	60	1419	88	520	1245	97	95	93	208	157	66	32
Grp Sat Flow(s),veh/h/ln	1781	1777	1543	1781	1777	1550	1297	1870	1555	1075	1870	1564
Q Serve(g_s), s	3.5	42.3	3.9	25.4	23.3	2.9	6.9	4.4	13.0	15.1	3.1	1.8
Cycle Q Clear(g_c), s	3.5	42.3	3.9	25.4	23.3	2.9	10.0	4.4	13.0	19.5	3.1	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	1421	617	427	2105	918	300	389	323	247	389	325
V/C Ratio(X)	0.72	1.00	0.14	1.22	0.59	0.11	0.32	0.24	0.64	0.64	0.17	0.10
Avail Cap(c_a), veh/h	175	1421	617	427	2105	918	348	459	381	287	459	384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	31.8	20.3	40.3	13.6	9.4	38.6	35.0	38.4	43.1	34.5	34.0
Incr Delay (d2), s/veh	10.9	23.6	0.1	118.1	0.5	0.1	0.7	0.4	3.3	4.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	21.3	1.3	24.6	8.2	0.9	2.2	2.0	5.2	4.3	1.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	55.4	20.4	158.4	14.1	9.5	39.3	35.4	41.7	47.4	34.7	34.1
LnGrp LOS	E	E	C	F	B	A	D	D	D	D	C	C
Approach Vol, veh/h		1567			1862			396			255	
Approach Delay, s/veh		53.6			54.1			39.7			42.4	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	48.2		27.9	9.6	68.6		27.9				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	25.4	42.4		26.0	10.4	57.4		26.0				
Max Q Clear Time (g_c+I1), s	27.4	44.3		21.5	5.5	25.3		15.0				
Green Ext Time (p_c), s	0.0	0.0		0.5	0.0	14.9		1.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				51.8								
HCM 6th LOS				D								

Timings  
3: California Oaks St. & Clinton Keith Rd.

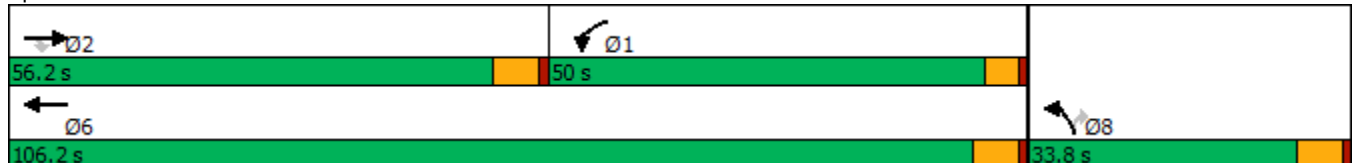


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓↓	↓
Traffic Volume (vph)	1715	184	812	1560	176	883
Future Volume (vph)	1715	184	812	1560	176	883
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	32.8	32.8	10.6	15.8	33.8	33.8
Total Split (s)	56.2	56.2	50.0	106.2	33.8	33.8
Total Split (%)	40.1%	40.1%	35.7%	75.9%	24.1%	24.1%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 134.1  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.





HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	1715	184	812	1560	176	883
Future Volume (veh/h)	1715	184	812	1560	176	883
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1885	169	892	1714	193	844
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1268	553	573	2557	353	629
Arrive On Green	0.36	0.36	0.32	0.72	0.20	0.20
Sat Flow, veh/h	3647	1550	1781	3647	1781	3170
Grp Volume(v), veh/h	1885	169	892	1714	193	844
Grp Sat Flow(s),veh/h/ln	1777	1550	1781	1777	1781	1585
Q Serve(g_s), s	50.4	11.1	45.4	36.9	13.8	28.0
Cycle Q Clear(g_c), s	50.4	11.1	45.4	36.9	13.8	28.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1268	553	573	2557	353	629
V/C Ratio(X)	1.49	0.31	1.56	0.67	0.55	1.34
Avail Cap(c_a), veh/h	1268	553	573	2557	353	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	32.8	47.9	10.7	50.9	56.6
Incr Delay (d2), s/veh	223.0	0.4	259.3	0.8	2.4	164.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	60.6	4.2	60.7	12.6	6.3	25.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	268.4	33.2	307.2	11.5	53.3	221.3
LnGrp LOS	F	C	F	B	D	F
Approach Vol, veh/h	2054			2606	1037	
Approach Delay, s/veh	249.0			112.7	190.0	
Approach LOS	F			F	F	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	51.2	56.2			107.4	33.8
Change Period (Y+Rc), s	5.8	* 5.8			5.8	5.8
Max Green Setting (Gmax), s	45.4	* 50			100.4	28.0
Max Q Clear Time (g_c+I1), s	47.4	52.4			38.9	30.0
Green Ext Time (p_c), s	0.0	0.0			29.7	0.0

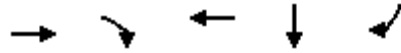
Intersection Summary

HCM 6th Ctrl Delay	175.9
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

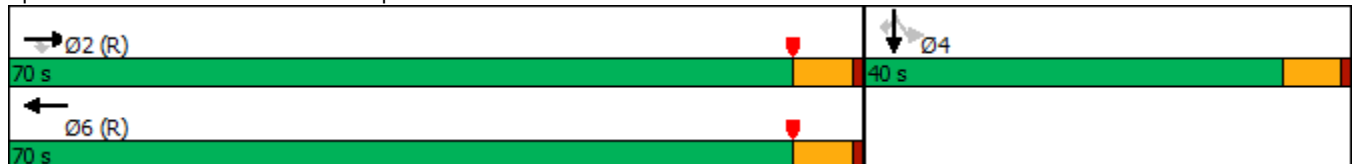


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	2129	692	1873	1	765
Future Volume (vph)	2129	692	1873	1	765
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	2129	692	0	1873	742	0	0	0	466	1	765
Future Volume (veh/h)	0	2129	692	0	1873	742	0	0	0	466	1	765
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2218	721	0	1951	773				485	1	797
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3016	921	0	2179	777				540	1	848
Arrive On Green	0.00	0.59	0.59	0.00	1.00	1.00				0.30	0.30	0.30
Sat Flow, veh/h	0	5274	1560	0	3857	1316				1778	4	2790
Grp Volume(v), veh/h	0	2218	721	0	1784	940				486	0	797
Grp Sat Flow(s),veh/h/ln	0	1702	1560	0	1702	1601				1781	0	1395
Q Serve(g_s), s	0.0	34.6	38.7	0.0	0.0	0.0				28.7	0.0	30.6
Cycle Q Clear(g_c), s	0.0	34.6	38.7	0.0	0.0	0.0				28.7	0.0	30.6
Prop In Lane	0.00		1.00	0.00		0.82				1.00		1.00
Lane Grp Cap(c), veh/h	0	3016	921	0	2010	945				542	0	848
V/C Ratio(X)	0.00	0.74	0.78	0.00	0.89	0.99				0.90	0.00	0.94
Avail Cap(c_a), veh/h	0	3016	921	0	2010	945				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.09	0.09				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.3	17.1	0.0	0.0	0.0				36.6	0.0	37.3
Incr Delay (d2), s/veh	0.0	1.6	6.6	0.0	0.6	7.7				16.6	0.0	17.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.2	13.7	0.0	0.2	2.0				14.6	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.9	23.7	0.0	0.6	7.7				53.2	0.0	54.5
LnGrp LOS	A	B	C	A	A	A				D	A	D
Approach Vol, veh/h		2939			2724					1283		
Approach Delay, s/veh		19.4			3.1					54.0		
Approach LOS		B			A					D		
Timer - Assigned Phs		2			4					6		
Phs Duration (G+Y+Rc), s		70.8			39.2					70.8		
Change Period (Y+Rc), s		5.8			5.8					5.8		
Max Green Setting (Gmax), s		64.2			34.2					64.2		
Max Q Clear Time (g_c+I1), s		40.7			32.6					2.0		
Green Ext Time (p_c), s		14.9			0.8					26.8		
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					19.4							
HCM 6th LOS					B							

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

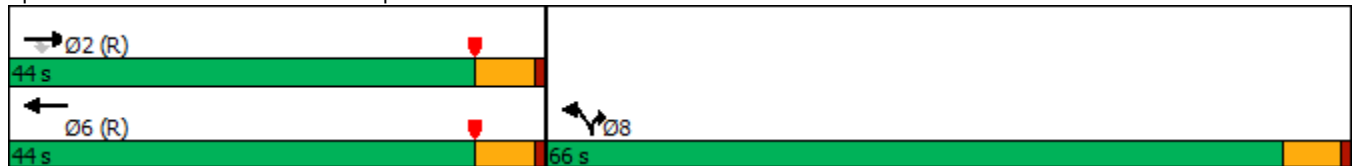


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑
Traffic Volume (vph)	1793	803	1625	989	1113
Future Volume (vph)	1793	803	1625	989	1113
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.8	23.8	10.8	10.8	10.8
Total Split (s)	44.0	44.0	44.0	66.0	66.0
Total Split (%)	40.0%	40.0%	40.0%	60.0%	60.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗		↑↑↑	↘	↗
Traffic Volume (veh/h)	1793	803	0	1625	989	1113
Future Volume (veh/h)	1793	803	0	1625	989	1113
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1887	0	0	1711	1041	761
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	1773		0	1773	975	867
Arrive On Green	0.69	0.00	0.00	0.35	0.55	0.55
Sat Flow, veh/h	5274	1585	0	5443	1781	1585
Grp Volume(v), veh/h	1887	0	0	1711	1041	761
Grp Sat Flow(s),veh/h/ln	1702	1585	0	1702	1781	1585
Q Serve(g_s), s	38.2	0.0	0.0	36.2	60.2	46.0
Cycle Q Clear(g_c), s	38.2	0.0	0.0	36.2	60.2	46.0
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1773		0	1773	975	867
V/C Ratio(X)	1.06		0.00	0.96	1.07	0.88
Avail Cap(c_a), veh/h	1773		0	1773	975	867
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	35.2	24.9	21.7
Incr Delay (d2), s/veh	36.8	0.0	0.0	2.2	48.7	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	0.0	0.0	14.4	36.3	18.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.6	0.0	0.0	37.4	73.6	31.4
LnGrp LOS	F		A	D	F	C
Approach Vol, veh/h	1887	A		1711	1802	
Approach Delay, s/veh	53.6			37.4	55.8	
Approach LOS	D			D	E	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		44.0			44.0	66.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		38.2			38.2	60.2
Max Q Clear Time (g_c+I1), s		40.2			38.2	62.2
Green Ext Time (p_c), s		0.0			0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	49.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.  
 Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

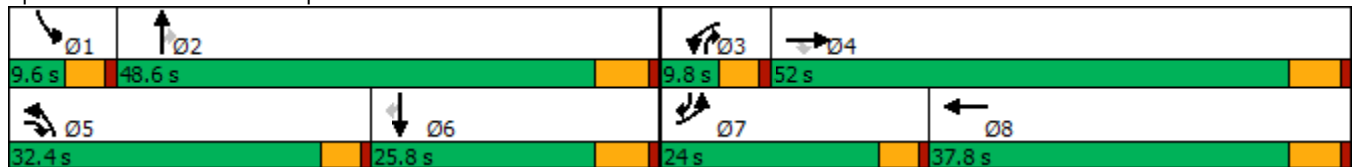


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑↔	↔↔	↑↑	↗	↗	↑	↗
Traffic Volume (vph)	343	873	354	106	888	467	229	127	84	135	330
Future Volume (vph)	343	873	354	106	888	467	229	127	84	135	330
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6
Total Split (s)	24.0	52.0	32.4	9.8	37.8	32.4	48.6	9.8	9.6	25.8	24.0
Total Split (%)	20.0%	43.3%	27.0%	8.2%	31.5%	27.0%	40.5%	8.2%	8.0%	21.5%	20.0%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 93  
 Natural Cycle: 105  
 Control Type: Actuated-Uncoordinated
































Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	  		 	 			 	
Traffic Volume (veh/h)	343	873	354	106	888	92	467	229	127	84	135	330
Future Volume (veh/h)	343	873	354	106	888	92	467	229	127	84	135	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	350	891	244	108	906	84	477	234	82	86	138	278
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	444	1206	803	194	1270	117	579	1023	539	109	340	492
Arrive On Green	0.13	0.34	0.34	0.06	0.27	0.27	0.17	0.29	0.29	0.06	0.18	0.18
Sat Flow, veh/h	3456	3554	1582	3456	4756	440	3456	3554	1562	1781	1870	1585
Grp Volume(v), veh/h	350	891	244	108	648	342	477	234	82	86	138	278
Grp Sat Flow(s),veh/h/ln	1728	1777	1582	1728	1702	1791	1728	1777	1562	1781	1870	1585
Q Serve(g_s), s	8.0	18.0	7.3	2.5	14.0	14.1	10.9	4.1	3.0	3.9	5.3	12.0
Cycle Q Clear(g_c), s	8.0	18.0	7.3	2.5	14.0	14.1	10.9	4.1	3.0	3.9	5.3	12.0
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	1206	803	194	909	478	579	1023	539	109	340	492
V/C Ratio(X)	0.79	0.74	0.30	0.56	0.71	0.72	0.82	0.23	0.15	0.79	0.41	0.57
Avail Cap(c_a), veh/h	823	2014	1162	220	1336	703	1179	1866	909	109	459	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	23.7	11.7	37.5	27.0	27.1	32.8	22.1	18.5	37.7	29.5	23.5
Incr Delay (d2), s/veh	1.2	0.9	0.2	0.9	1.1	2.0	1.2	0.1	0.1	28.5	0.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.9	2.2	1.0	5.3	5.8	4.3	1.6	1.0	2.5	2.3	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	24.6	11.9	38.4	28.1	29.1	33.9	22.2	18.6	66.3	30.2	24.5
LnGrp LOS	D	C	B	D	C	C	C	C	B	E	C	C
Approach Vol, veh/h		1485			1098			793			502	
Approach Delay, s/veh		25.1			29.4			28.9			33.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	29.3	9.2	33.5	18.3	20.6	15.1	27.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	5.0	42.8	5.2	46.2	27.8	20.0	19.4	32.0				
Max Q Clear Time (g_c+1), s	5.9	6.1	4.5	20.0	12.9	14.0	10.0	16.1				
Green Ext Time (p_c), s	0.0	1.7	0.0	7.2	0.8	0.9	0.5	5.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				28.2								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	13	38	384	5	15	291
Future Vol, veh/h	13	38	384	5	15	291
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	41	417	5	16	316

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	768	420	0	0	422
Stage 1	420	-	-	-	-
Stage 2	348	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	370	633	-	-	1137
Stage 1	663	-	-	-	-
Stage 2	715	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	364	633	-	-	1137
Mov Cap-2 Maneuver	477	-	-	-	-
Stage 1	663	-	-	-	-
Stage 2	703	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	584	1137
HCM Lane V/C Ratio	-	-	0.095	0.014
HCM Control Delay (s)	-	-	11.8	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0



Timings  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)  
06/21/2022

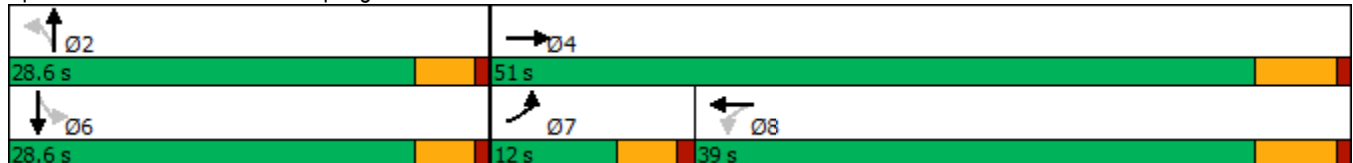


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↷	↶	↷	↶	↷	↶	↷
Traffic Volume (vph)	2	236	20	127	5	5	14	5
Future Volume (vph)	2	236	20	127	5	5	14	5
Turn Type	Prot	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	7	4		8		2		6
Permitted Phases			8		2		6	
Detector Phase	7	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	6.0	10.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	15.8	38.8	38.8	25.6	25.6	25.6	25.6
Total Split (s)	12.0	51.0	39.0	39.0	28.6	28.6	28.6	28.6
Total Split (%)	15.1%	64.1%	49.0%	49.0%	35.9%	35.9%	35.9%	35.9%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 79.6  
 Actuated Cycle Length: 31.5  
 Natural Cycle: 75  
 Control Type: Actuated-Uncoordinated






















Splits and Phases: 8: Warm Springs Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)

06/21/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	236	5	20	127	5	5	5	120	14	5	21
Future Volume (veh/h)	2	236	5	20	127	5	5	5	120	14	5	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	257	5	22	138	5	5	5	130	15	5	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	1759	34	618	1166	42	450	271	242	341	99	158
Arrive On Green	0.00	0.49	0.49	0.33	0.33	0.33	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3565	69	1117	3498	126	1401	1777	1585	1254	648	1036
Grp Volume(v), veh/h	2	128	134	22	70	73	5	5	130	15	0	13
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1117	1777	1848	1401	1777	1585	1254	0	1684
Q Serve(g_s), s	0.0	1.2	1.2	0.4	0.8	0.8	0.1	0.1	2.2	0.3	0.0	0.2
Cycle Q Clear(g_c), s	0.0	1.2	1.2	0.4	0.8	0.8	0.3	0.1	2.2	2.6	0.0	0.2
Prop In Lane	1.00		0.04	1.00		0.07	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	6	877	917	618	592	616	450	271	242	341	0	257
V/C Ratio(X)	0.33	0.15	0.15	0.04	0.12	0.12	0.01	0.02	0.54	0.04	0.00	0.05
Avail Cap(c_a), veh/h	449	2735	2860	1509	2009	2089	1381	1452	1296	1176	0	1376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.6	4.1	4.1	6.7	6.8	6.8	10.7	10.6	11.5	12.7	0.0	10.6
Incr Delay (d2), s/veh	28.8	0.1	0.1	0.0	0.1	0.1	0.0	0.0	1.9	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.0	0.2	0.2	0.0	0.0	0.7	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	4.2	4.2	6.7	6.9	6.9	10.8	10.6	13.3	12.7	0.0	10.7
LnGrp LOS	D	A	A	A	A	A	B	B	B	B	A	B
Approach Vol, veh/h		264			165			140			28	
Approach Delay, s/veh		4.5			6.9			13.2			11.8	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		9.1		20.3		9.1	4.7	15.6				
Change Period (Y+Rc), s		4.6		5.8		4.6	4.6	5.8				
Max Green Setting (Gmax), s		24.0		45.2		24.0	7.4	33.2				
Max Q Clear Time (g_c+I1), s		4.2		3.2		4.6	2.0	2.8				
Green Ext Time (p_c), s		0.8		2.3		0.1	0.0	1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				7.5								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	9	0	39	47	16
Future Vol, veh/h	0	9	0	39	47	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	42	51	17

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	34	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1032	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1032	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 1032	-	-
HCM Lane V/C Ratio	- 0.009	-	-
HCM Control Delay (s)	- 8.5	-	-
HCM Lane LOS	- A	-	-
HCM 95th %tile Q(veh)	- 0	-	-

Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	15	188	25	40	16
Future Vol, veh/h	15	15	188	25	40	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	204	27	43	17

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	474	30	60	0	0
Stage 1	52	-	-	-	-
Stage 2	422	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-
Pot Cap-1 Maneuver	519	1038	1542	-	-
Stage 1	964	-	-	-	-
Stage 2	629	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	450	1038	1542	-	-
Mov Cap-2 Maneuver	450	-	-	-	-
Stage 1	837	-	-	-	-
Stage 2	629	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	6.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1542	-	628	-	-
HCM Lane V/C Ratio	0.133	-	0.052	-	-
HCM Control Delay (s)	7.7	-	11	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.2	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	9	0	213	23	31
Future Vol, veh/h	0	9	0	213	23	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	232	25	34

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	30	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1038	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1038	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 1038	-	-
HCM Lane V/C Ratio	- 0.009	-	-
HCM Control Delay (s)	- 8.5	-	-
HCM Lane LOS	- A	-	-
HCM 95th %tile Q(veh)	- 0	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↙	↘
Traffic Vol, veh/h	0	0	0	213	32	0
Future Vol, veh/h	0	0	0	213	32	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	232	35	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	232	0	-	0	116
Stage 1	-	-	-	-	116
Stage 2	-	-	-	-	0
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1336	-	-	-	880
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	-
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1336	-	-	-	880
Mov Cap-2 Maneuver	-	-	-	-	880
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1336	-	-	-	880	-
HCM Lane V/C Ratio	-	-	-	-	0.04	-
HCM Control Delay (s)	0	-	-	-	9.3	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	200	6	0	376	0	18
Future Vol, veh/h	200	6	0	376	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	217	7	0	409	0	20

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	112
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	920
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	920
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	920	-	-	-
HCM Lane V/C Ratio	0.021	-	-	-
HCM Control Delay (s)	9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	221	9	0	375	0	27
Future Vol, veh/h	221	9	0	375	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	240	10	0	408	0	29

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	125
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	902
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	902
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	902	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-
HCM Control Delay (s)	9.1	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-



15: Running Rabbit Rd. & Street G

12/06/2021

Intersection							
Int Delay, s/veh	2.7						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	4		1		
Traffic Vol, veh/h	0	32	213	32	92	0	
Future Vol, veh/h	0	32	213	32	92	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	35	232	35	100	0	

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	267	0	0	285
Stage 1	-	-	-	250
Stage 2	-	-	-	35
Critical Hdwy	4.12	-	-	6.42
Critical Hdwy Stg 1	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	3.518
Pot Cap-1 Maneuver	1297	-	-	705
Stage 1	-	-	-	792
Stage 2	-	-	-	987
Platoon blocked, %	-	-	-	0
Mov Cap-1 Maneuver	1297	-	-	705
Mov Cap-2 Maneuver	-	-	-	705
Stage 1	-	-	-	792
Stage 2	-	-	-	987

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	1297	-	-	-	-	705
HCM Lane V/C Ratio	-	-	-	-	-	0.142
HCM Control Delay (s)	0	-	-	-	-	10.9
HCM Lane LOS	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0.5

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	123	236	3	0	9
Future Vol, veh/h	0	123	236	3	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	134	257	3	0	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	260	0	-	0	393
Stage 1	-	-	-	-	259
Stage 2	-	-	-	-	134
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1304	-	-	-	611
Stage 1	-	-	-	-	784
Stage 2	-	-	-	-	892
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1304	-	-	-	611
Mov Cap-2 Maneuver	-	-	-	-	611
Stage 1	-	-	-	-	784
Stage 2	-	-	-	-	892

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1304	-	-	-	780
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings  
17: Menifee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

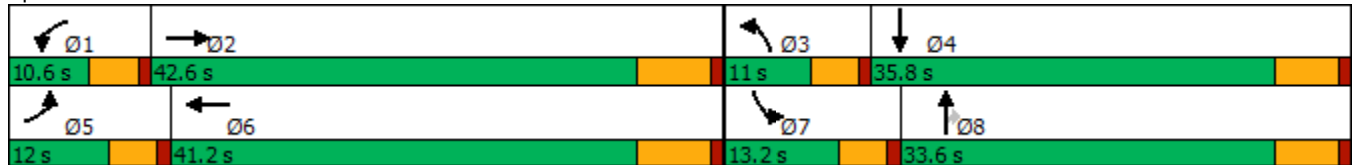


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	248	958	146	881	253	339	223	95	204
Future Volume (vph)	248	958	146	881	253	339	223	95	204
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	12.0	42.6	10.6	41.2	11.0	33.6	33.6	13.2	35.8
Total Split (%)	12.0%	42.6%	10.6%	41.2%	11.0%	33.6%	33.6%	13.2%	35.8%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary























Cycle Length: 100  
 Actuated Cycle Length: 96.5  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Menifee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

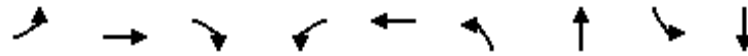
Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	958	335	146	881	135	253	339	223	95	204	120
Future Volume (veh/h)	248	958	335	146	881	135	253	339	223	95	204	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	253	978	331	149	899	132	258	346	169	97	208	103
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1023	344	116	1175	173	124	445	372	123	280	139
Arrive On Green	0.08	0.39	0.39	0.07	0.38	0.38	0.07	0.24	0.24	0.07	0.24	0.24
Sat Flow, veh/h	1781	2602	874	1781	3109	456	1781	1870	1565	1781	1180	584
Grp Volume(v), veh/h	253	666	643	149	514	517	258	346	169	97	0	311
Grp Sat Flow(s),veh/h/ln	1781	1777	1699	1781	1777	1788	1781	1870	1565	1781	0	1764
Q Serve(g_s), s	7.4	33.3	33.9	6.0	23.2	23.2	6.4	15.9	8.5	4.9	0.0	15.0
Cycle Q Clear(g_c), s	7.4	33.3	33.9	6.0	23.2	23.2	6.4	15.9	8.5	4.9	0.0	15.0
Prop In Lane	1.00		0.51	1.00		0.26	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	144	699	668	116	672	676	124	445	372	123	0	419
V/C Ratio(X)	1.76	0.95	0.96	1.28	0.76	0.77	2.08	0.78	0.45	0.79	0.00	0.74
Avail Cap(c_a), veh/h	144	699	668	116	672	676	124	567	474	167	0	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.2	27.0	27.2	42.9	25.0	25.0	42.7	32.7	29.9	42.0	0.0	32.4
Incr Delay (d2), s/veh	369.5	24.2	26.8	176.2	8.1	8.1	511.1	11.1	3.3	15.8	0.0	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	16.9	16.8	8.2	10.1	10.1	20.3	8.1	3.3	2.6	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	411.7	51.2	54.0	219.1	33.1	33.0	553.8	43.8	33.2	57.8	0.0	42.1
LnGrp LOS	F	D	D	F	C	C	F	D	C	E	A	D
Approach Vol, veh/h		1562			1180			773			408	
Approach Delay, s/veh		110.8			56.6			211.7			45.8	
Approach LOS		F			E			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	42.6	11.0	27.6	12.0	41.2	11.0	27.6				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	6.0	36.1	6.4	30.0	7.4	34.7	8.6	27.8				
Max Q Clear Time (g_c+I1), s	8.0	35.9	8.4	17.0	9.4	25.2	6.9	17.9				
Green Ext Time (p_c), s	0.0	0.2	0.0	3.0	0.0	7.5	0.0	3.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	107.6											
HCM 6th LOS	F											

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)

12/06/2021

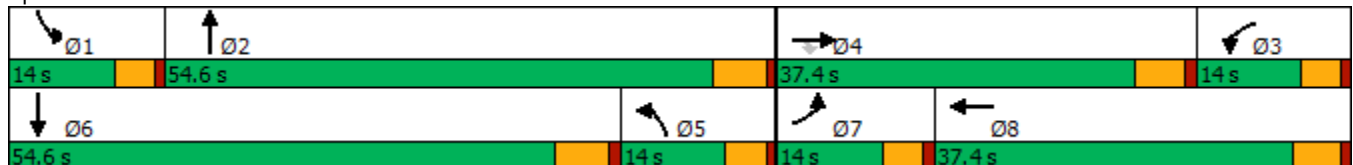


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑	↗	↘	↕	↘	↕	↘	↕
Traffic Volume (vph)	79	11	81	26	10	102	797	14	530
Future Volume (vph)	79	11	81	26	10	102	797	14	530
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 67.3  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Meniffee Rd. & Keller Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	11	81	26	10	6	102	797	51	14	530	36
Future Volume (veh/h)	79	11	81	26	10	6	102	797	51	14	530	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	12	66	28	11	4	111	866	53	15	576	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	281	234	88	363	123	250	1566	96	39	1105	67
Arrive On Green	0.07	0.15	0.15	0.05	0.14	0.14	0.14	0.46	0.46	0.02	0.32	0.32
Sat Flow, veh/h	1781	1870	1554	1781	2586	880	1781	3396	208	1781	3404	207
Grp Volume(v), veh/h	86	12	66	28	7	8	111	453	466	15	300	311
Grp Sat Flow(s),veh/h/ln	1781	1870	1554	1781	1777	1689	1781	1777	1827	1781	1777	1833
Q Serve(g_s), s	3.1	0.4	2.5	1.0	0.2	0.3	3.8	12.3	12.3	0.6	9.2	9.2
Cycle Q Clear(g_c), s	3.1	0.4	2.5	1.0	0.2	0.3	3.8	12.3	12.3	0.6	9.2	9.2
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.11	1.00		0.11
Lane Grp Cap(c), veh/h	127	281	234	88	249	237	250	819	843	39	577	595
V/C Ratio(X)	0.67	0.04	0.28	0.32	0.03	0.03	0.44	0.55	0.55	0.39	0.52	0.52
Avail Cap(c_a), veh/h	250	895	744	250	851	808	250	1297	1334	250	1297	1338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	24.3	25.2	30.7	24.8	24.8	26.3	13.0	13.0	32.3	18.3	18.4
Incr Delay (d2), s/veh	6.1	0.3	3.0	2.1	0.2	0.3	1.2	2.2	2.2	6.2	2.8	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.2	1.0	0.5	0.1	0.1	1.6	4.4	4.5	0.3	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	24.6	28.2	32.7	25.0	25.1	27.6	15.3	15.2	38.4	21.1	21.1
LnGrp LOS	D	C	C	C	C	C	C	B	B	D	C	C
Approach Vol, veh/h		164			43			1030			626	
Approach Delay, s/veh		32.2			30.1			16.6			21.5	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	36.6	8.7	15.5	15.2	27.5	9.4	14.8				
Change Period (Y+Rc), s	4.6	5.8	5.4	* 5.4	5.8	* 5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	* 32	9.4	* 49	9.4	32.0				
Max Q Clear Time (g_c+I1), s	2.6	14.3	3.0	4.5	5.8	11.2	5.1	2.3				
Green Ext Time (p_c), s	0.0	16.4	0.0	0.8	0.1	10.3	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

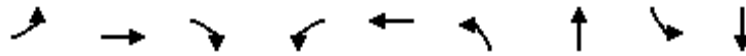
Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)

12/06/2021

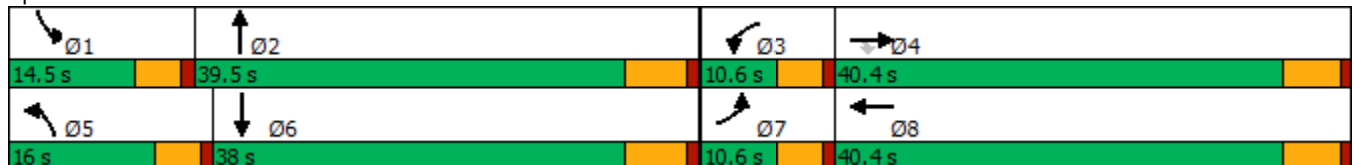


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	77	3	168	50	15	237	522	6	989
Future Volume (vph)	77	3	168	50	15	237	522	6	989
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	16.0	39.5	14.5	38.0
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	15.2%	37.6%	13.8%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary























Cycle Length: 105  
 Actuated Cycle Length: 76.1  
 Natural Cycle: 115  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	3	168	50	15	6	237	522	41	6	989	123
Future Volume (veh/h)	77	3	168	50	15	6	237	522	41	6	989	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	3	173	52	16	3	247	544	20	6	1030	124
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	271	230	93	399	72	265	1841	68	17	1237	149
Arrive On Green	0.06	0.14	0.14	0.05	0.13	0.13	0.15	0.53	0.53	0.01	0.39	0.39
Sat Flow, veh/h	1781	1870	1585	1781	2996	543	1781	3492	128	1781	3188	383
Grp Volume(v), veh/h	80	3	173	52	9	10	247	276	288	6	574	580
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1762	1781	1777	1843	1781	1777	1794
Q Serve(g_s), s	3.4	0.1	8.0	2.2	0.3	0.4	10.5	6.7	6.7	0.3	22.4	22.4
Cycle Q Clear(g_c), s	3.4	0.1	8.0	2.2	0.3	0.4	10.5	6.7	6.7	0.3	22.4	22.4
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.07	1.00		0.21
Lane Grp Cap(c), veh/h	114	271	230	93	237	235	265	937	972	17	690	696
V/C Ratio(X)	0.70	0.01	0.75	0.56	0.04	0.04	0.93	0.30	0.30	0.36	0.83	0.83
Avail Cap(c_a), veh/h	139	854	723	139	811	804	265	937	972	230	746	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	28.1	31.5	35.5	29.0	29.0	32.3	10.1	10.1	37.8	21.2	21.2
Incr Delay (d2), s/veh	11.4	0.0	6.7	5.1	0.1	0.1	37.6	0.3	0.3	12.5	8.1	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.3	1.0	0.1	0.2	6.9	2.2	2.3	0.2	9.6	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	28.1	38.2	40.6	29.0	29.1	69.9	10.4	10.4	50.2	29.3	29.4
LnGrp LOS	D	C	D	D	C	C	E	B	B	D	C	C
Approach Vol, veh/h		256			71			811			1160	
Approach Delay, s/veh		40.7			37.5			28.5			29.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	46.2	8.6	16.5	16.0	35.6	9.5	15.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	11.4	32.2	6.0	35.0				
Max Q Clear Time (g_c+I1), s	2.3	8.7	4.2	10.0	12.5	24.4	5.4	2.4				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.8	0.0	5.3	0.0	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			30.6									
HCM 6th LOS			C									



Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	37	0	799	1194	13
Future Vol, veh/h	0	37	0	799	1194	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	0	868	1298	14

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	656	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	408	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	408	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 408	-	-
HCM Lane V/C Ratio	- 0.099	-	-
HCM Control Delay (s)	- 14.8	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.3	-	-

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	5	0	199	14	0	14	222	1285	14	14	1007	0
Future Vol, veh/h	5	0	199	14	0	14	222	1285	14	14	1007	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	209	15	0	15	234	1353	15	15	1060	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2235	2926	530	2389	2919	684	1060	0	0	1368	0	0
Stage 1	1090	1090	-	1829	1829	-	-	-	-	-	-	-
Stage 2	1145	1836	-	560	1090	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	5	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*33	*10	*669	*22	*10	391	*1000	-	-	498	-	-
Stage 1	*630	*553	-	*173	*126	-	-	-	-	-	-	-
Stage 2	*212	*125	-	*630	*553	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	*26	*7	*669	*~ 12	*7	391	*1000	-	-	498	-	-
Mov Cap-2 Maneuver	*129	*76	-	*101	*86	-	-	-	-	-	-	-
Stage 1	*483	*536	-	*133	*97	-	-	-	-	-	-	-
Stage 2	*156	*96	-	*420	*536	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	32.3	1.4	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1000	-	-	607	161	498	-
HCM Lane V/C Ratio	0.234	-	-	0.354	0.183	0.03	-
HCM Control Delay (s)	9.7	-	-	14.1	32.3	12.4	-
HCM Lane LOS	A	-	-	B	D	B	-
HCM 95th %tile Q(veh)	0.9	-	-	1.6	0.6	0.1	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/06/2021

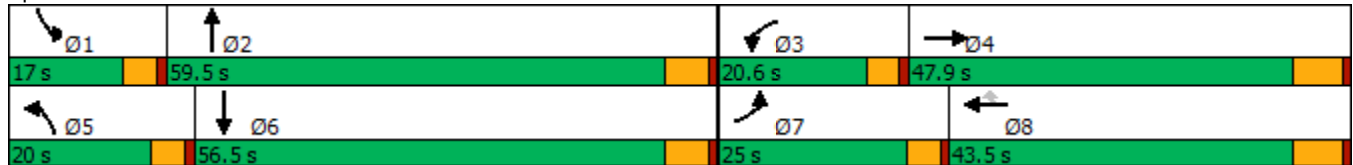


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↖↗	↕↔	↖↗	↕↔	↖	↖	↕↔	↖	↕↔
Traffic Volume (vph)	855	1051	383	756	205	311	1182	297	793
Future Volume (vph)	855	1051	383	756	205	311	1182	297	793
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	25.0	47.9	20.6	43.5	43.5	20.0	59.5	17.0	56.5
Total Split (%)	17.2%	33.0%	14.2%	30.0%	30.0%	13.8%	41.0%	11.7%	39.0%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated































Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 		 	 	
Traffic Volume (veh/h)	855	1051	398	383	756	205	311	1182	273	297	793	608
Future Volume (veh/h)	855	1051	398	383	756	205	311	1182	273	297	793	608
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	972	1194	417	435	859	215	353	1343	130	338	901	686
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1067	372	381	1303	403	189	1213	117	152	686	496
Arrive On Green	0.14	0.29	0.29	0.11	0.26	0.26	0.11	0.37	0.37	0.09	0.35	0.35
Sat Flow, veh/h	3456	3735	1303	3456	5106	1578	1781	3275	316	1781	1963	1418
Grp Volume(v), veh/h	972	1088	523	435	859	215	353	726	747	338	811	776
Grp Sat Flow(s),veh/h/ln	1728	1702	1634	1728	1702	1578	1781	1777	1814	1781	1777	1604
Q Serve(g_s), s	20.4	41.4	41.4	16.0	21.8	17.0	15.4	53.7	53.7	12.4	50.7	50.7
Cycle Q Clear(g_c), s	20.4	41.4	41.4	16.0	21.8	17.0	15.4	53.7	53.7	12.4	50.7	50.7
Prop In Lane	1.00		0.80	1.00		1.00	1.00		0.17	1.00		0.88
Lane Grp Cap(c), veh/h	486	972	467	381	1303	403	189	658	672	152	621	561
V/C Ratio(X)	2.00	1.12	1.12	1.14	0.66	0.53	1.87	1.10	1.11	2.22	1.31	1.38
Avail Cap(c_a), veh/h	486	972	467	381	1303	403	189	658	672	152	621	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	51.8	51.8	64.5	48.4	46.6	64.8	45.7	45.7	66.3	47.2	47.2
Incr Delay (d2), s/veh	457.0	67.5	79.0	90.2	1.7	2.5	409.2	66.8	69.7	569.2	148.8	183.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	39.6	26.3	26.7	11.7	9.3	6.9	28.4	35.0	36.2	29.6	47.3	48.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	519.3	119.3	130.8	154.7	50.0	49.1	474.0	112.5	115.4	635.5	196.0	230.8
LnGrp LOS	F	F	F	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		2583			1509			1826			1925	
Approach Delay, s/veh		272.2			80.1			183.5			287.2	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	59.5	20.6	47.9	20.0	56.5	25.0	43.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	12.4	53.7	16.0	41.4	15.4	50.7	20.4	37.0				
Max Q Clear Time (g_c+1), s	14.4	55.7	18.0	43.4	17.4	52.7	22.4	23.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1				

Intersection Summary

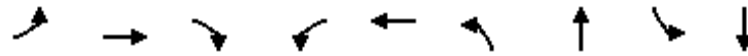
HCM 6th Ctrl Delay	218.3
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)  
12/06/2021

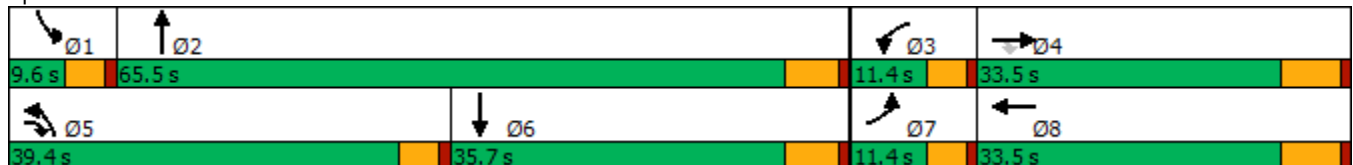


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	199	598	839	161	424	783	363	7	236
Future Volume (vph)	199	598	839	161	424	783	363	7	236
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	11.4	33.5	39.4	11.4	33.5	39.4	65.5	9.6	35.7
Total Split (%)	9.5%	27.9%	32.8%	9.5%	27.9%	32.8%	54.6%	8.0%	29.8%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 92.9  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated























Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	598	839	161	424	14	783	363	77	7	236	163
Future Volume (veh/h)	199	598	839	161	424	14	783	363	77	7	236	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	623	699	168	442	9	816	378	55	7	246	123
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	1032	879	236	1017	21	912	1250	180	31	339	164
Arrive On Green	0.07	0.29	0.29	0.07	0.29	0.29	0.26	0.40	0.40	0.01	0.15	0.15
Sat Flow, veh/h	3456	3554	1585	3456	3562	72	3456	3116	450	3456	2321	1124
Grp Volume(v), veh/h	207	623	699	168	220	231	816	214	219	7	186	183
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1857	1728	1777	1789	1728	1777	1668
Q Serve(g_s), s	5.5	14.0	27.0	4.4	9.4	9.4	21.1	7.6	7.8	0.2	9.3	9.8
Cycle Q Clear(g_c), s	5.5	14.0	27.0	4.4	9.4	9.4	21.1	7.6	7.8	0.2	9.3	9.8
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.25	1.00		0.67
Lane Grp Cap(c), veh/h	253	1032	879	236	508	531	912	713	718	31	259	243
V/C Ratio(X)	0.82	0.60	0.80	0.71	0.43	0.43	0.89	0.30	0.30	0.23	0.72	0.75
Avail Cap(c_a), veh/h	253	1032	879	253	516	539	1294	1141	1149	186	572	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	28.4	16.5	42.4	27.1	27.1	33.0	19.0	19.0	45.7	37.9	38.1
Incr Delay (d2), s/veh	17.6	1.0	5.1	6.8	0.6	0.6	4.9	0.2	0.2	1.4	3.7	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.5	10.9	2.0	3.8	3.9	8.9	2.9	3.0	0.1	4.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	29.4	21.6	49.2	27.7	27.6	37.8	19.2	19.2	47.1	41.6	42.7
LnGrp LOS	E	C	C	D	C	C	D	B	B	D	D	D
Approach Vol, veh/h		1529			619			1249			376	
Approach Delay, s/veh		30.0			33.5			31.4			42.2	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.4	43.1	11.0	33.5	29.1	19.4	11.4	33.1				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	59.7	6.8	27.0	34.8	29.9	6.8	27.0				
Max Q Clear Time (g_c+I1), s	2.2	9.8	6.4	29.0	23.1	11.8	7.5	11.4				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	1.4	1.8	0.0	2.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				32.2								
HCM 6th LOS				C								

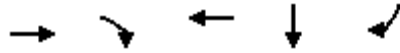
**APPENDIX 5.3:**

**OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS OFF-RAMP  
QUEUING ANALYSIS WORKSHEETS**

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## 4: I-215 SB Ramps &amp; Clinton Keith Rd.



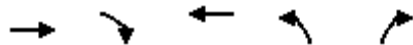
Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2080	761	2054	432	543
v/c Ratio	0.66	0.61	0.68	0.87	0.63
Control Delay	15.6	3.1	16.8	56.7	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	3.1	16.8	56.8	29.3
Queue Length 50th (ft)	345	0	201	282	142
Queue Length 95th (ft)	410	49	m185	#426	201
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	3131	1252	3019	551	951
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	25	0	0	1	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.67	0.61	0.68	0.79	0.57

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1555	1005	1672	759	705
v/c Ratio	0.70	0.80	0.76	0.97	1.01
Control Delay	23.0	12.4	28.3	55.6	67.9
Queue Delay	0.0	1.6	0.0	0.0	0.0
Total Delay	23.0	14.0	28.3	55.6	67.9
Queue Length 50th (ft)	355	414	349	511	~557
Queue Length 95th (ft)	319	656	376	#831	#849
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	2459	1284	2459	785	698
Starvation Cap Reductn	0	132	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.87	0.68	0.97	1.01

#### Intersection Summary

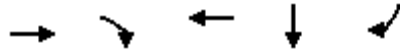
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

## 4: I-215 SB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2155	721	2562	445	797
v/c Ratio	0.72	0.59	0.88	0.83	0.92
Control Delay	17.9	3.1	9.7	49.7	52.5
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	17.9	3.1	9.9	49.7	52.5
Queue Length 50th (ft)	378	0	241	288	295
Queue Length 95th (ft)	436	48	m232	#448	#422
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	3007	1212	2930	553	888
Starvation Cap Reductn	0	0	46	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.72	0.59	0.89	0.80	0.90

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 5: I-215 NB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1781	845	1547	1151	987
v/c Ratio	1.04	0.86	0.90	1.18	1.18
Control Delay	55.0	12.4	43.0	115.7	118.3
Queue Delay	0.0	7.7	0.0	0.0	0.0
Total Delay	55.0	20.1	43.0	115.7	118.3
Queue Length 50th (ft)	~501	0	378	~979	~885
Queue Length 95th (ft)	#582	#546	#446	#1237	#1150
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	1719	984	1719	978	837
Starvation Cap Reductn	0	112	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.04	0.97	0.90	1.18	1.18

## Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

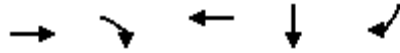
Queue shown is maximum after two cycles.

**APPENDIX 5.4:**

**OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS OFF-RAMP  
QUEUING ANALYSIS WORKSHEETS**

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## 4: I-215 SB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2160	761	2166	475	543
v/c Ratio	0.71	0.61	0.85dr	0.91	0.61
Control Delay	17.3	3.2	16.6	60.1	29.1
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	17.3	3.2	16.7	60.2	29.1
Queue Length 50th (ft)	384	0	165	312	144
Queue Length 95th (ft)	438	49	m219	#495	207
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	3055	1240	2952	553	943
Starvation Cap Reductn	0	0	15	0	0
Spillback Cap Reductn	21	0	0	1	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.61	0.74	0.86	0.58

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1682	1005	1787	798	752
v/c Ratio	0.73	0.79	0.78	1.07	1.13
Control Delay	21.0	10.9	27.8	83.2	105.5
Queue Delay	0.0	2.1	0.0	0.0	0.0
Total Delay	21.0	13.0	27.8	83.2	105.5
Queue Length 50th (ft)	367	443	365	~645	~668
Queue Length 95th (ft)	360	m649	415	#900	#930
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	2459	1284	2459	749	668
Starvation Cap Reductn	0	155	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.68	0.89	0.73	1.07	1.13

#### Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

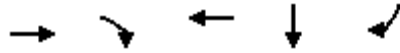
# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



## 4: I-215 SB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2218	721	2724	486	797
v/c Ratio	0.74	0.59	0.93	0.91	0.92
Control Delay	18.4	3.1	10.8	58.8	53.0
Queue Delay	0.0	0.0	0.6	0.0	0.0
Total Delay	18.4	3.1	11.4	58.8	53.0
Queue Length 50th (ft)	398	0	245	325	295
Queue Length 95th (ft)	458	48	m218	#513	#422
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	3007	1212	2925	551	885
Starvation Cap Reductn	0	0	46	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.59	0.95	0.88	0.90

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 5: I-215 NB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1887	845	1711	1158	1055
v/c Ratio	1.10	0.88	1.00	1.19	1.26
Control Delay	77.3	12.9	57.4	119.7	152.7
Queue Delay	0.0	10.1	0.0	0.0	0.0
Total Delay	77.3	23.0	57.4	119.7	152.7
Queue Length 50th (ft)	~559	6	438	~986	~987
Queue Length 95th (ft)	#641	m#415	#555	#1240	#1250
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	1719	957	1719	976	836
Starvation Cap Reductn	0	101	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.10	0.99	1.00	1.19	1.26

## Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

**APPENDIX 5.5:**

**OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS TRAFFIC  
SIGNAL WARRANT ANALYSIS**

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### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC (2027) NP Conditions - Weekday PM Peak Hour**

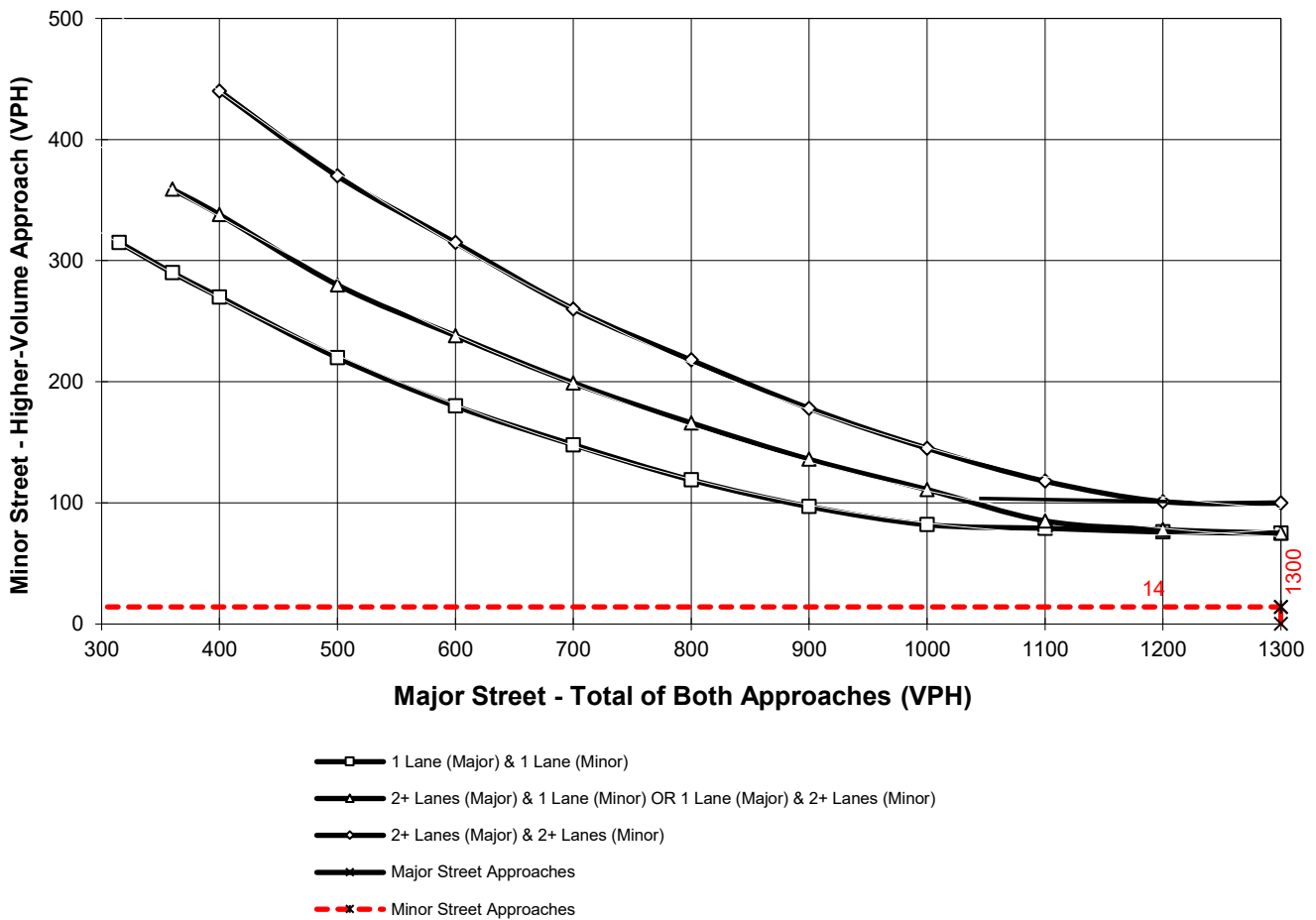
Major Street Name = **Whitewood Road**

Total of Both Approaches (VPH) = **2252**  
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Running Rabbit Road**

High Volume Approach (VPH) = **14**  
 Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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**APPENDIX 5.6:**

**OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS TRAFFIC SIGNAL  
WARRANT ANALYSIS**

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### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Antelope Road</u>					Critical Approach Speed (Major)	<u>30</u> mph
Minor Street: <u>Street A</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =		<u>1</u>	lane	Minor Street Approach Lanes:	<u>1</u>	lane
Major Street Future ADT =		<u>352</u>	vpd	Minor Street Future ADT =	<u>352</u>	vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						<input type="checkbox"/>
						or
In built up area of isolated community of < 10,000 population .....						<input type="checkbox"/>

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
<b>XX</b>					
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
Number of lanes for moving traffic on each approach		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>352</b>	1 <b>352</b>	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
Number of lanes for moving traffic on each approach		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>352</b>	1 <b>352</b>	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
No one condition satisfied, but following conditions fulfilled 80% of more .....					
	<u>A</u>				
	<b>4%</b>				
	<u>B</u>				
	<b>3%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Warm Springs Road</u>					Critical Approach Speed (Major)	<u>30</u> mph
Minor Street: <u>Street C</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =			<u>1</u>	lane	Minor Street Approach Lanes:	<u>1</u> lane
Major Street Future ADT =			<u>1,992</u>	vpd	Minor Street Future ADT =	<u>1,014</u> vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						<input type="checkbox"/>
						or
In built up area of isolated community of < 10,000 population .....						<input type="checkbox"/>

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
<b>XX</b>					
<b>CONDITION A - Minimum Vehicular Volume</b>					
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1 <b>1,992</b>	1 <b>1,014</b>	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>					
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1 <b>1,992</b>	1 <b>1,014</b>	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>					
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
No one condition satisfied, but following conditions fulfilled 80% of more .....		2 CONDITIONS 80%		2 CONDITIONS 80%	
	<u>A</u>				
	<b>25%</b>				
	<u>B</u>				
	<b>17%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	(2027) WP Condit	
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>	
Major Street: <u>Warm Springs Road</u>					Critical Approach Speed (Major)	<u>30</u> mph	
Minor Street: <u>Running Rabbit Road</u>					Critical Approach Speed (Minor)	<u>25</u> mph	
Major Street Approach Lanes = <u>1</u> lane				Minor Street Approach Lanes: <u>1</u> lane			
Major Street Future ADT = <u>1,283</u> vpd				Minor Street Future ADT = <u>1,283</u> vpd			
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						<input type="checkbox"/>	
						or	<b>URBAN (U)</b>
In built up area of isolated community of < 10,000 population .....						<input type="checkbox"/>	

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
<b>XX</b>					
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>1,283</b>	1 <b>1,283</b>	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>1,283</b>	1 <b>1,283</b>	12,000	8,400	1,200 *	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
No one condition satisfied, but following conditions fulfilled 80% of more .....					
	<u>A</u>				
	<b>16%</b>				
	<u>B</u>				
	<b>11%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Runng Rabbit Rd.</u>					Critical Approach Speed (Major)	<u>25</u> mph
Minor Street: <u>Street G</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =		<u>1</u>	lane	Minor Street Approach Lanes:	<u>1</u>	lane
Major Street Future ADT =		<u>3,460</u>	vpd	Minor Street Future ADT =	<u>895</u>	vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						
						or
In built up area of isolated community of < 10,000 population .....						
<b>URBAN (U)</b>						

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>		<u>RURAL</u>		Minimum Requirements EADT			
<b>XX</b>							
<b>CONDITION A - Minimum Vehicular Volume</b>				Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>		<u>Not Satisfied</u>		(Total of Both Approaches)		(One Direction Only)	
		<b>XX</b>		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Major Street</u>	<u>Minor Street</u>				
1 <b>3,460</b>	1 <b>895</b>	1 <b>3,460</b>	1 <b>895</b>				
2 +	1	2 +	1				
2 +	2 +	2 +	2 +				
1	2 +	1	2 +				
				8,000      5,600		2,400      1,680	
				9,600      6,720		2,400      1,680	
				9,600      6,720		3,200      2,240	
				8,000      5,600		3,200      2,240	
<b>CONDITION B - Interruption of Continuous Traffic</b>				Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>		<u>Not Satisfied</u>		(Total of Both Approaches)		(One Direction Only)	
		<b>XX</b>		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Major Street</u>	<u>Minor Street</u>				
1 <b>3,460</b>	1 <b>895</b>	1 <b>3,460</b>	1 <b>895</b>				
2 +	1	2 +	1				
2 +	2 +	2 +	2 +				
1	2 +	1	2 +				
				12,000      8,400		1,200      850	
				14,400      10,080		1,200      850	
				14,400      10,080		1,600      1,120	
				12,000      8,400		1,600      1,120	
<b>Combination of CONDITIONS A + B</b>				2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>		<u>Not Satisfied</u>		80%		80%	
No one condition satisfied, but following conditions fulfilled 80% of more .....		<b>XX</b>					
		<u>A</u>	<u>B</u>				
		<b>37%</b>	<b>29%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Runng Rabbit Rd.</u>					Critical Approach Speed (Major)	<u>25</u> mph
Minor Street: <u>Street H</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =		<u>1</u>	lane	Minor Street Approach Lanes:	<u>1</u>	lane
Major Street Future ADT =		<u>4,353</u>	vpd	Minor Street Future ADT =	<u>89</u>	vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						
						or
In built up area of isolated community of < 10,000 population .....						

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements			
<b>XX</b>		EADT			
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1 4,353</u>	<u>1 89</u>	8,000	5,600	2,400	1,680
<u>2 +</u>	<u>1</u>	9,600	6,720	2,400	1,680
<u>2 +</u>	<u>2 +</u>	9,600	6,720	3,200	2,240
<u>1</u>	<u>2 +</u>	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1 4,353</u>	<u>1 89</u>	12,000	8,400	1,200	850
<u>2 +</u>	<u>1</u>	14,400	10,080	1,200	850
<u>2 +</u>	<u>2 +</u>	14,400	10,080	1,600	1,120
<u>1</u>	<u>2 +</u>	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>	<u>Not Satisfied</u>	80%		80%	
No one condition satisfied, but following conditions fulfilled 80% of more .....	<b>XX</b>				
	<b>A</b>				
	<b>4%</b>				
	<b>B</b>				
	<b>7%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC (2027) WP Conditions - Weekday PM Peak Hour**

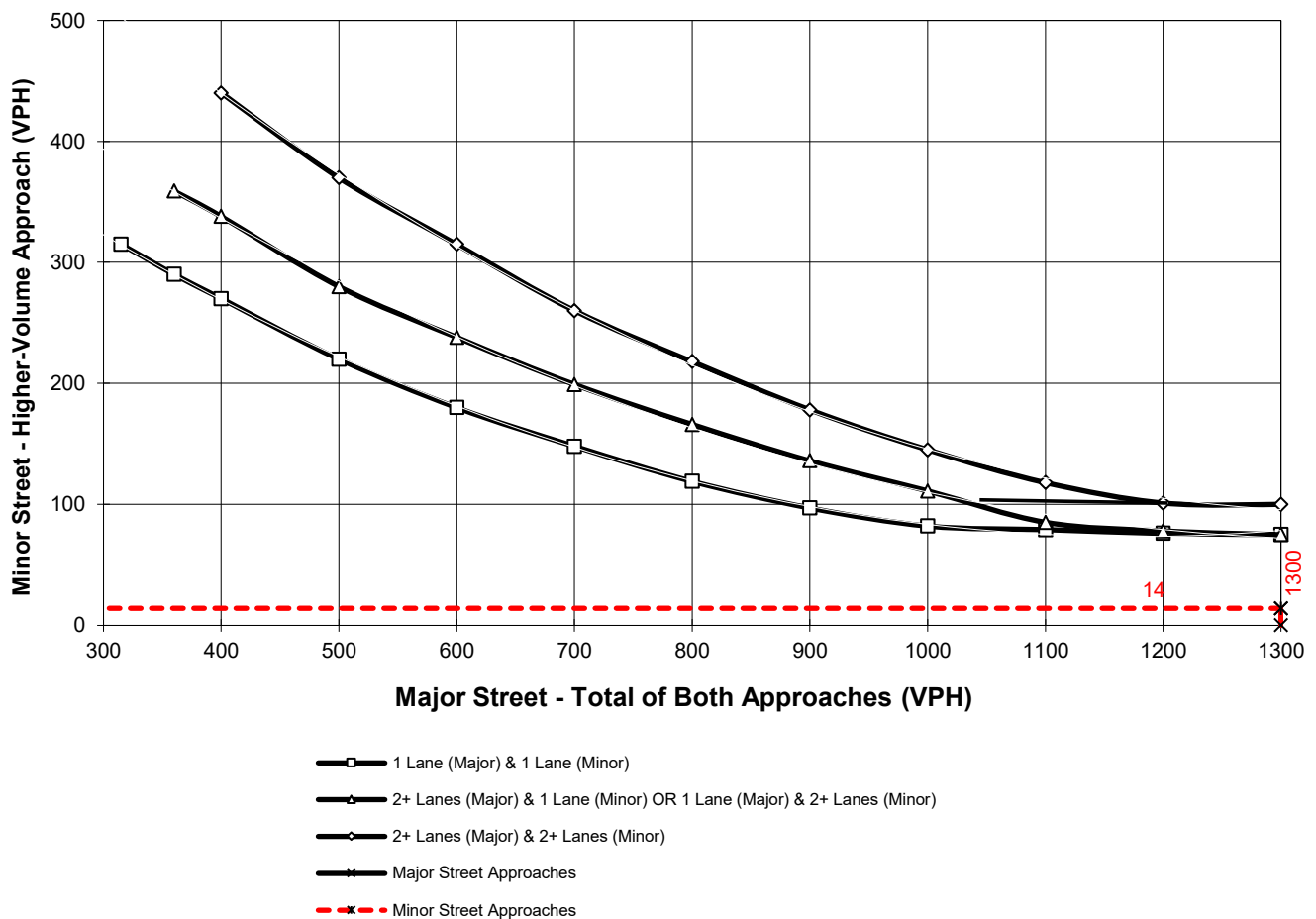
Major Street Name = **Whitewood Road**

Total of Both Approaches (VPH) = **2541**  
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Running Rabbit Road**

High Volume Approach (VPH) = **14**  
 Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

**APPENDIX 5.7:**

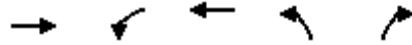
**OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS INTERSECTION  
OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS**

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Timings

3: California Oaks St. & Clinton Keith Rd.



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↵	↑↑↑	↵	↵↵
Traffic Volume (vph)	1491	698	1589	133	489
Future Volume (vph)	1491	698	1589	133	489
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	33.8	10.6	15.8	33.8	10.6
Total Split (s)	56.0	40.0	96.0	34.0	40.0
Total Split (%)	43.1%	30.8%	73.8%	26.2%	30.8%
Yellow Time (s)	4.8	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	Min	None	Min	None	None

Intersection Summary

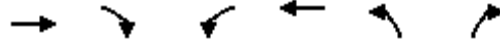
Cycle Length: 130  
 Actuated Cycle Length: 113.5  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 06/20/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	↵↵
Traffic Volume (veh/h)	1491	157	698	1589	133	489
Future Volume (veh/h)	1491	157	698	1589	133	489
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1521	160	712	1621	136	499
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1968	207	557	4195	267	1466
Arrive On Green	0.39	0.39	0.31	0.75	0.15	0.15
Sat Flow, veh/h	4991	525	1781	5611	1781	3170
Grp Volume(v), veh/h	1140	541	712	1621	136	499
Grp Sat Flow(s),veh/h/ln	1870	1774	1781	1870	1781	1585
Q Serve(g_s), s	30.1	30.1	35.4	11.6	8.0	11.4
Cycle Q Clear(g_c), s	30.1	30.1	35.4	11.6	8.0	11.4
Prop In Lane		0.30	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1475	700	557	4195	267	1466
V/C Ratio(X)	0.77	0.77	1.28	0.39	0.51	0.34
Avail Cap(c_a), veh/h	1658	786	557	4469	444	1780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	29.9	38.9	5.1	44.3	19.4
Incr Delay (d2), s/veh	2.2	4.7	138.8	0.1	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	13.0	36.1	3.3	3.6	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.1	34.5	177.8	5.1	46.7	19.6
LnGrp LOS	C	C	F	A	D	B
Approach Vol, veh/h	1681			2333	635	
Approach Delay, s/veh	32.9			57.8	25.4	
Approach LOS	C			E	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	40.0	50.5			90.5	22.8
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	35.4	50.2			90.2	28.2
Max Q Clear Time (g_c+11), s	37.4	32.1			13.6	13.4
Green Ext Time (p_c), s	0.0	12.6			26.3	3.6

Intersection Summary

HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
17: Menifee Rd. & Scott Rd.

Discovery Village (JN:14073)  
12/07/2021

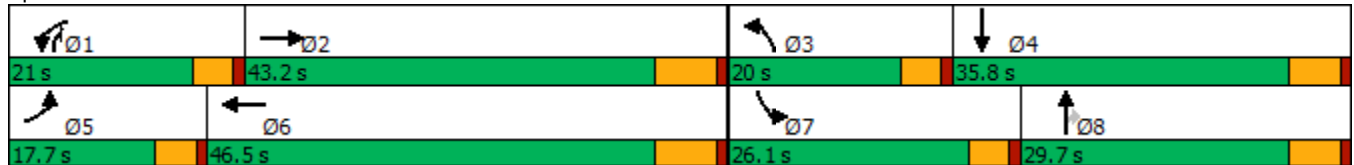


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕↕↕	↙	↕↕↕	↙	↕↕	↗	↙	↕↕
Traffic Volume (vph)	88	779	269	954	255	249	272	171	358
Future Volume (vph)	88	779	269	954	255	249	272	171	358
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	6.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	10.6	10.6	35.8
Total Split (s)	17.7	43.2	21.0	46.5	20.0	29.7	21.0	26.1	35.8
Total Split (%)	14.8%	36.0%	17.5%	38.8%	16.7%	24.8%	17.5%	21.8%	29.8%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	4.6	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary




























Cycle Length: 120  
 Actuated Cycle Length: 115.4  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Menifee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 		 		 
Traffic Volume (veh/h)	88	779	181	269	954	137	255	249	272	171	358	143
Future Volume (veh/h)	88	779	181	269	954	137	255	249	272	171	358	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	856	188	296	1048	139	280	274	231	188	393	153
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	1261	275	267	1737	230	250	816	596	221	531	204
Arrive On Green	0.07	0.30	0.30	0.15	0.38	0.38	0.14	0.23	0.23	0.12	0.21	0.21
Sat Flow, veh/h	1781	4194	916	1781	4554	603	1781	3554	1561	1781	2494	957
Grp Volume(v), veh/h	97	694	350	296	783	404	280	274	231	188	278	268
Grp Sat Flow(s),veh/h/ln	1781	1702	1706	1781	1702	1753	1781	1777	1561	1781	1777	1675
Q Serve(g_s), s	5.9	19.6	19.8	16.4	20.2	20.3	15.4	7.0	11.8	11.3	16.0	16.4
Cycle Q Clear(g_c), s	5.9	19.6	19.8	16.4	20.2	20.3	15.4	7.0	11.8	11.3	16.0	16.4
Prop In Lane	1.00		0.54	1.00		0.34	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	123	1023	513	267	1299	669	250	816	596	221	378	356
V/C Ratio(X)	0.79	0.68	0.68	1.11	0.60	0.60	1.12	0.34	0.39	0.85	0.74	0.75
Avail Cap(c_a), veh/h	213	1141	572	267	1299	669	250	816	596	350	487	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	33.6	33.7	46.6	27.2	27.2	47.1	35.2	24.8	47.0	40.2	40.4
Incr Delay (d2), s/veh	10.8	3.6	7.2	87.7	2.1	4.0	92.2	0.9	1.6	11.1	10.5	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.0	8.6	13.4	7.9	8.5	13.0	3.1	4.4	5.5	7.8	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.0	37.3	40.9	134.3	29.3	31.2	139.3	36.2	26.3	58.1	50.7	52.3
LnGrp LOS	E	D	D	F	C	C	F	D	C	E	D	D
Approach Vol, veh/h		1141			1483			785			734	
Approach Delay, s/veh		40.4			50.8			70.0			53.2	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	39.4	20.0	29.1	12.1	48.3	18.2	30.9				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	16.4	36.7	15.4	30.0	13.1	40.0	21.5	23.9				
Max Q Clear Time (g_c+I1), s	18.4	21.8	17.4	18.4	7.9	22.3	13.3	13.8				
Green Ext Time (p_c), s	0.0	11.1	0.0	4.9	0.1	13.9	0.3	3.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			52.0									
HCM 6th LOS			D									

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

03/29/2022

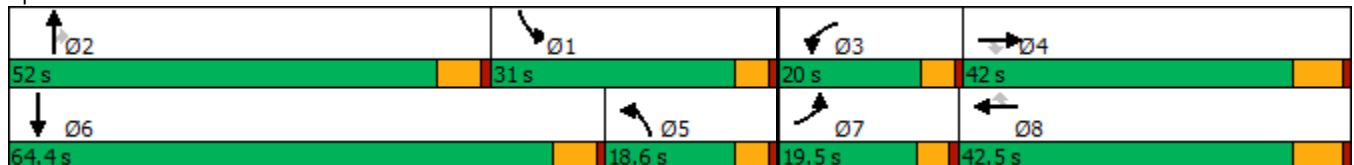


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔↔	↑↔
Traffic Volume (vph)	400	952	368	284	1368	194	347	1133	287	634	1514
Future Volume (vph)	400	952	368	284	1368	194	347	1133	287	634	1514
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	37.5	37.5	10.6	37.5	37.5	10.6	45.8	45.8	10.6	45.8
Total Split (s)	19.5	42.0	42.0	20.0	42.5	42.5	18.6	52.0	52.0	31.0	64.4
Total Split (%)	13.4%	29.0%	29.0%	13.8%	29.3%	29.3%	12.8%	35.9%	35.9%	21.4%	44.4%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	6.5	4.6	6.5	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None

Intersection Summary


































Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 03/29/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		  	  		 	 		 		
Traffic Volume (veh/h)	400	952	368	284	1368	194	347	1133	287	634	1514	272
Future Volume (veh/h)	400	952	368	284	1368	194	347	1133	287	634	1514	272
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.86	1.00		0.93	1.00		0.91	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	408	971	223	290	1396	142	354	1156	165	647	1545	110
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	366	1442	352	335	1393	367	344	1184	456	656	1390	98
Arrive On Green	0.21	0.51	0.51	0.19	0.50	0.50	0.19	0.63	0.63	0.37	0.81	0.81
Sat Flow, veh/h	3563	5611	1369	3563	5611	1480	3563	3741	1441	3563	3439	243
Grp Volume(v), veh/h	408	971	223	290	1396	142	354	1156	165	647	834	821
Grp Sat Flow(s),veh/h/ln	1781	1870	1369	1781	1870	1480	1781	1870	1441	1781	1870	1812
Q Serve(g_s), s	14.9	18.7	13.1	11.4	36.0	5.7	14.0	43.1	6.0	26.1	58.6	58.6
Cycle Q Clear(g_c), s	14.9	18.7	13.1	11.4	36.0	5.7	14.0	43.1	6.0	26.1	58.6	58.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	366	1442	352	335	1393	367	344	1184	456	656	756	732
V/C Ratio(X)	1.11	0.67	0.63	0.87	1.00	0.39	1.03	0.98	0.36	0.99	1.10	1.12
Avail Cap(c_a), veh/h	366	1442	352	378	1393	367	344	1192	459	656	756	732
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.6	30.7	17.8	58.0	36.5	12.6	58.5	26.1	11.3	45.6	13.9	13.9
Incr Delay (d2), s/veh	81.7	1.2	3.7	17.0	24.6	0.7	56.2	20.5	0.5	31.5	64.9	71.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	6.5	3.5	5.4	15.3	2.7	8.2	15.0	2.3	12.2	19.3	20.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	139.3	32.0	21.5	75.0	61.1	13.3	114.7	46.5	11.7	77.1	78.8	85.6
LnGrp LOS	F	C	C	E	F	B	F	D	B	E	F	F
Approach Vol, veh/h		1602			1828			1675			2302	
Approach Delay, s/veh		57.9			59.6			57.5			80.7	
Approach LOS		E			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.3	51.7	18.2	43.8	18.6	64.4	19.5	42.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	26.4	46.2	15.4	35.5	14.0	58.6	14.9	36.0				
Max Q Clear Time (g_c+I1), s	28.1	45.1	13.4	20.7	16.0	60.6	16.9	38.0				
Green Ext Time (p_c), s	0.0	0.8	0.2	6.2	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			65.3									
HCM 6th LOS			E									
<b>Notes</b>												
User approved changes to right turn type.												

Timings

3: California Oaks St. & Clinton Keith Rd.

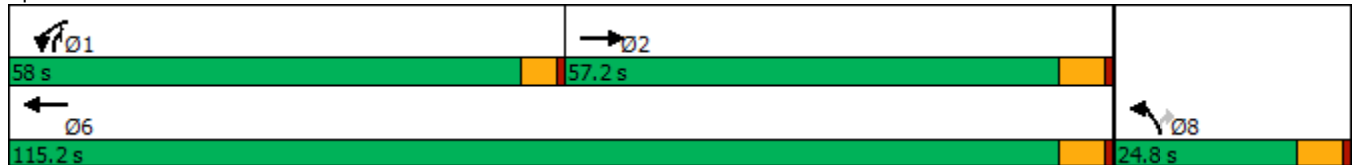


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↵	↑↑↑	↵	↵↵
Traffic Volume (vph)	1715	812	1560	176	883
Future Volume (vph)	1715	812	1560	176	883
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	32.8	9.6	15.8	24.8	9.6
Total Split (s)	57.2	58.0	115.2	24.8	58.0
Total Split (%)	40.9%	41.4%	82.3%	17.7%	41.4%
Yellow Time (s)	4.8	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	Min	None	Min	None	None

Intersection Summary

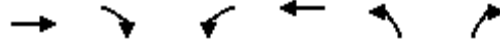
Cycle Length: 140  
 Actuated Cycle Length: 138.1  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 06/20/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	↵↵
Traffic Volume (veh/h)	1715	184	812	1560	176	883
Future Volume (veh/h)	1715	184	812	1560	176	883
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1885	87	892	1714	193	943
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1950	90	680	4384	242	1640
Arrive On Green	0.48	0.48	0.50	1.00	0.14	0.14
Sat Flow, veh/h	5316	245	1781	5611	1781	3170
Grp Volume(v), veh/h	1325	647	892	1714	193	943
Grp Sat Flow(s),veh/h/ln	1870	1820	1781	1870	1781	1585
Q Serve(g_s), s	48.1	48.4	53.4	0.0	14.7	19.0
Cycle Q Clear(g_c), s	48.1	48.4	53.4	0.0	14.7	19.0
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1372	668	680	4384	242	1640
V/C Ratio(X)	0.97	0.97	1.31	0.39	0.80	0.57
Avail Cap(c_a), veh/h	1374	668	680	4387	242	1640
HCM Platoon Ratio	1.30	1.30	1.30	1.30	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	35.8	35.3	0.0	58.6	23.2
Incr Delay (d2), s/veh	16.8	27.2	150.9	0.1	15.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.5	23.9	48.7	0.0	7.6	10.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.5	63.1	186.1	0.1	74.3	23.5
LnGrp LOS	D	E	F	A	E	C
Approach Vol, veh/h	1972			2606	1136	
Approach Delay, s/veh	56.0			63.8	32.2	
Approach LOS	E			E	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	58.0	57.1			115.1	24.8
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	53.4	51.4			109.4	19.0
Max Q Clear Time (g_c+I1), s	55.4	50.4			2.0	21.0
Green Ext Time (p_c), s	0.0	1.0			31.5	0.0

Intersection Summary

HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D



Timings  
17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
12/07/2021

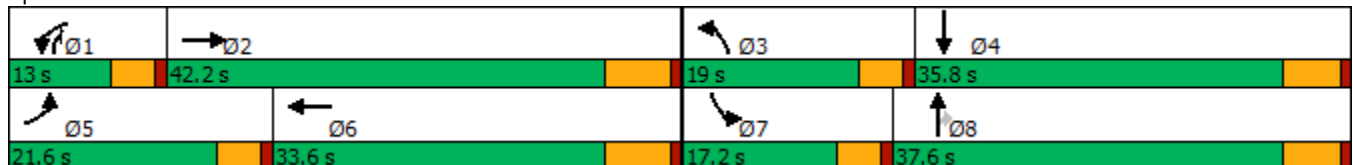


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕↕↕	↙	↕↕↕	↙	↕↕	↗	↙	↕↕
Traffic Volume (vph)	248	958	146	881	253	339	223	95	204
Future Volume (vph)	248	958	146	881	253	339	223	95	204
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6	3	8	1	7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	1	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	6.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	10.6	10.6	35.8
Total Split (s)	21.6	42.2	13.0	33.6	19.0	37.6	13.0	17.2	35.8
Total Split (%)	19.6%	38.4%	11.8%	30.5%	17.3%	34.2%	11.8%	15.6%	32.5%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	4.6	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary




























Cycle Length: 110  
 Actuated Cycle Length: 95.6  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Meniffee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 		 		 
Traffic Volume (veh/h)	248	958	335	146	881	135	253	339	223	95	204	120
Future Volume (veh/h)	248	958	335	146	881	135	253	339	223	95	204	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	253	978	331	149	899	132	258	346	169	97	208	103
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	1382	467	162	1337	195	279	845	516	124	353	168
Arrive On Green	0.16	0.37	0.37	0.09	0.30	0.30	0.16	0.24	0.24	0.07	0.15	0.15
Sat Flow, veh/h	1781	3756	1270	1781	4498	658	1781	3554	1565	1781	2333	1111
Grp Volume(v), veh/h	253	886	423	149	679	352	258	346	169	97	156	155
Grp Sat Flow(s),veh/h/ln	1781	1702	1621	1781	1702	1752	1781	1777	1565	1781	1777	1668
Q Serve(g_s), s	12.8	20.5	20.5	7.6	16.1	16.3	13.2	7.6	7.5	4.9	7.5	8.0
Cycle Q Clear(g_c), s	12.8	20.5	20.5	7.6	16.1	16.3	13.2	7.6	7.5	4.9	7.5	8.0
Prop In Lane	1.00		0.78	1.00		0.38	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	288	1252	596	162	1012	521	279	845	516	124	269	252
V/C Ratio(X)	0.88	0.71	0.71	0.92	0.67	0.68	0.93	0.41	0.33	0.78	0.58	0.61
Avail Cap(c_a), veh/h	329	1320	629	162	1012	521	279	1227	685	244	579	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	24.9	24.9	41.5	28.4	28.5	38.3	29.6	23.3	42.1	36.4	36.6
Incr Delay (d2), s/veh	20.7	3.4	7.0	47.1	3.6	6.9	35.0	1.2	1.4	10.1	7.5	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	7.9	8.1	5.3	6.4	7.1	8.1	3.2	2.8	2.4	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	28.3	31.9	88.6	32.0	35.3	73.3	30.9	24.7	52.2	43.9	45.5
LnGrp LOS	E	C	C	F	C	D	E	C	C	D	D	D
Approach Vol, veh/h		1562			1180			773			408	
Approach Delay, s/veh		34.1			40.1			43.7			46.5	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	40.4	19.0	19.7	19.5	33.9	11.0	27.7				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	8.4	35.7	14.4	30.0	17.0	27.1	12.6	31.8				
Max Q Clear Time (g_c+I1), s	9.6	22.5	15.2	10.0	14.8	18.3	6.9	9.6				
Green Ext Time (p_c), s	0.0	11.3	0.0	3.7	0.2	7.0	0.1	6.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			39.1									
HCM 6th LOS			D									

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

03/29/2022

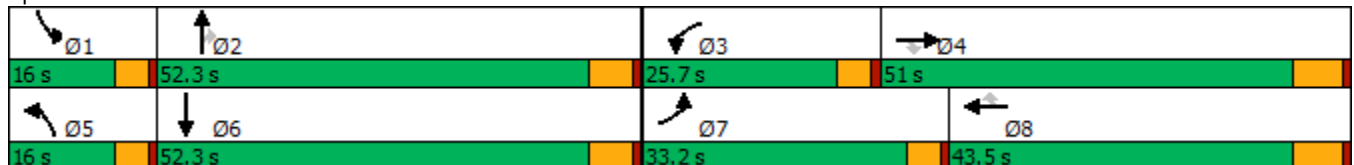


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↑↑↑	↗	↖↗	↑↑↑	↗	↖↗	↑↑	↗	↖↗	↑↘
Traffic Volume (vph)	855	1051	398	383	756	205	311	1182	273	297	793
Future Volume (vph)	855	1051	398	383	756	205	311	1182	273	297	793
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	46.5	10.6	43.5	43.5	10.6	45.8	45.8	10.6	45.8
Total Split (s)	33.2	51.0	51.0	25.7	43.5	43.5	16.0	52.3	52.3	16.0	52.3
Total Split (%)	22.9%	35.2%	35.2%	17.7%	30.0%	30.0%	11.0%	36.1%	36.1%	11.0%	36.1%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	6.5	4.6	6.5	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary



































Cycle Length: 145  
 Actuated Cycle Length: 137.4  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 03/29/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Traffic Volume (veh/h)	855	1051	398	383	756	205	311	1182	273	297	793	608
Future Volume (veh/h)	855	1051	398	383	756	205	311	1182	273	297	793	608
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	900	1106	235	403	796	116	327	1244	121	313	835	340
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	776	1547	437	459	1047	294	309	1290	546	309	870	353
Arrive On Green	0.44	0.55	0.55	0.26	0.37	0.37	0.17	0.69	0.69	0.17	0.69	0.69
Sat Flow, veh/h	3563	5611	1583	3563	5611	1575	3563	3741	1585	3563	2524	1024
Grp Volume(v), veh/h	900	1106	235	403	796	116	327	1244	121	313	618	557
Grp Sat Flow(s),veh/h/ln	1781	1870	1583	1781	1870	1575	1781	1870	1585	1781	1870	1678
Q Serve(g_s), s	28.6	19.1	12.4	14.2	16.3	7.1	11.4	40.5	3.7	11.4	39.7	40.2
Cycle Q Clear(g_c), s	28.6	19.1	12.4	14.2	16.3	7.1	11.4	40.5	3.7	11.4	39.7	40.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	776	1547	437	459	1047	294	309	1290	546	309	645	578
V/C Ratio(X)	1.16	0.71	0.54	0.88	0.76	0.39	1.06	0.96	0.22	1.01	0.96	0.96
Avail Cap(c_a), veh/h	776	1903	537	573	1582	444	309	1325	562	309	663	594
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	25.6	24.1	47.7	38.6	35.7	54.2	19.6	13.9	54.2	19.5	19.6
Incr Delay (d2), s/veh	85.7	1.0	1.0	12.4	1.2	0.9	66.9	16.7	0.2	54.1	24.8	27.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	6.1	3.8	6.1	6.1	2.5	7.4	10.8	1.2	6.8	12.1	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.8	26.6	25.1	60.1	39.8	36.5	121.1	36.4	14.1	108.3	44.3	47.1
LnGrp LOS	F	C	C	E	D	D	F	D	B	F	D	D
Approach Vol, veh/h		2241			1315			1692			1488	
Approach Delay, s/veh		65.1			45.7			51.1			58.8	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	51.0	21.5	42.7	16.0	51.0	33.2	31.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	11.4	46.5	21.1	44.5	11.4	46.5	28.6	37.0				
Max Q Clear Time (g_c+I1), s	13.4	42.5	16.2	21.1	13.4	42.2	30.6	18.3				
Green Ext Time (p_c), s	0.0	2.8	0.6	8.6	0.0	2.6	0.0	5.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			56.4									
HCM 6th LOS			E									
<b>Notes</b>												
User approved changes to right turn type.												

**APPENDIX 6.1:**

**HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS  
ANALYSIS WORKSHEETS**

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Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

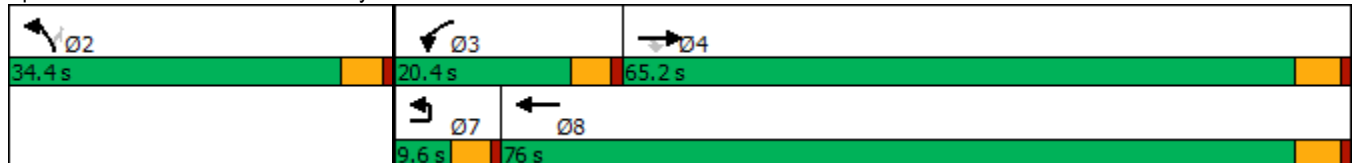


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	1479	626	162	1870	334	78	
Future Volume (vph)	1479	626	162	1870	334	78	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	65.2	65.2	20.4	76.0	34.4	34.4	9.6
Total Split (%)	54.3%	54.3%	17.0%	63.3%	28.7%	28.7%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 114  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↷	↰	↰	↷	↰	↰
Traffic Volume (veh/h)	0	1479	626	162	1870	334	78
Future Volume (veh/h)	0	1479	626	162	1870	334	78
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		1541	518	169	1948	348	72
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1884	840	200	1285	388	345
Arrive On Green		0.53	0.53	0.11	0.69	0.22	0.22
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		1541	518	169	1948	348	72
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		37.1	23.5	9.6	70.9	19.6	3.8
Cycle Q Clear(g_c), s		37.1	23.5	9.6	70.9	19.6	3.8
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1884	840	200	1285	388	345
V/C Ratio(X)		0.82	0.62	0.84	1.52	0.90	0.21
Avail Cap(c_a), veh/h		2070	923	273	1285	513	456
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		20.1	16.9	44.9	16.1	39.2	33.1
Incr Delay (d2), s/veh		2.5	1.1	12.4	236.1	15.1	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		14.7	8.2	4.9	108.4	10.1	1.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		22.6	18.0	57.4	252.3	54.3	33.4
LnGrp LOS		C	B	E	F	D	C
Approach Vol, veh/h		2059			2117	420	
Approach Delay, s/veh		21.4			236.7	50.7	
Approach LOS		C			F	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		27.2	16.2	59.8			76.0
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 30	15.8	60.1			70.9
Max Q Clear Time (g_c+I1), s		21.6	11.6	39.1			72.9
Green Ext Time (p_c), s		0.9	0.1	14.0			0.0

Intersection Summary

HCM 6th Ctrl Delay	123.3
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1141	157	456	1413	106	154	111	579	190	76	63
Future Volume (vph)	34	1141	157	456	1413	106	154	111	579	190	76	63
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	34.8	34.8	42.8	42.8	42.8	11.8	11.8	11.8
Total Split (s)	10.6	34.2	34.2	23.0	46.6	46.6	42.8	42.8	42.8	42.8	42.8	42.8
Total Split (%)	10.6%	34.2%	34.2%	23.0%	46.6%	46.6%	42.8%	42.8%	42.8%	42.8%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 89.2  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

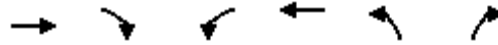
12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	1141	157	456	1413	106	154	111	579	190	76	63
Future Volume (veh/h)	34	1141	157	456	1413	106	154	111	579	190	76	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1189	138	475	1472	85	160	116	462	198	79	61
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	1063	461	345	1616	702	460	629	522	320	629	526
Arrive On Green	0.04	0.30	0.30	0.19	0.45	0.45	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1540	1781	3554	1544	1249	1870	1552	833	1870	1564
Grp Volume(v), veh/h	35	1189	138	475	1472	85	160	116	462	198	79	61
Grp Sat Flow(s),veh/h/ln	1781	1777	1540	1781	1777	1544	1249	1870	1552	833	1870	1564
Q Serve(g_s), s	1.8	28.4	6.5	18.4	36.6	3.0	9.7	4.2	26.7	20.9	2.8	2.6
Cycle Q Clear(g_c), s	1.8	28.4	6.5	18.4	36.6	3.0	12.4	4.2	26.7	25.1	2.8	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	1063	461	345	1616	702	460	629	522	320	629	526
V/C Ratio(X)	0.52	1.12	0.30	1.38	0.91	0.12	0.35	0.18	0.88	0.62	0.13	0.12
Avail Cap(c_a), veh/h	113	1063	461	345	1616	702	526	729	605	364	729	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	33.3	25.6	38.3	24.1	14.9	26.1	22.3	29.8	31.2	21.8	21.7
Incr Delay (d2), s/veh	5.9	66.3	0.5	186.5	8.2	0.1	0.6	0.2	13.7	3.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	21.1	2.3	25.5	15.4	1.0	2.9	1.8	11.6	4.4	1.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	99.5	26.1	224.8	32.3	15.0	26.7	22.5	43.5	34.2	21.9	21.9
LnGrp LOS	D	F	C	F	C	B	C	C	D	C	C	C
Approach Vol, veh/h		1362			2032			738			338	
Approach Delay, s/veh		90.8			76.6			36.5			29.1	
Approach LOS		F			E			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	34.2		37.8	8.2	49.0		37.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	18.4	28.4		37.0	6.0	40.8		37.0				
Max Q Clear Time (g_c+I1), s	20.4	30.4		27.1	3.8	38.6		28.7				
Green Ext Time (p_c), s	0.0	0.0		1.6	0.0	1.9		2.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				70.7								
HCM 6th LOS				E								

Timings

3: California Oaks St. & Clinton Keith Rd.

12/06/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (vph)	1868	238	754	1555	235	612
Future Volume (vph)	1868	238	754	1555	235	612
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	33.8	33.8	10.6	15.8	33.8	33.8
Total Split (s)	49.2	49.2	47.0	96.2	33.8	33.8
Total Split (%)	37.8%	37.8%	36.2%	74.0%	26.0%	26.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 130  
 Actuated Cycle Length: 123.4  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖↗	↗
Traffic Volume (veh/h)	1868	238	754	1555	235	612
Future Volume (veh/h)	1868	238	754	1555	235	612
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1906	243	769	1587	240	624
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1190	529	583	2480	379	674
Arrive On Green	0.33	0.33	0.33	0.70	0.21	0.21
Sat Flow, veh/h	3647	1580	1781	3647	1781	3170
Grp Volume(v), veh/h	1906	243	769	1587	240	624
Grp Sat Flow(s),veh/h/ln	1777	1580	1781	1777	1781	1585
Q Serve(g_s), s	43.4	15.7	42.4	31.6	15.9	25.0
Cycle Q Clear(g_c), s	43.4	15.7	42.4	31.6	15.9	25.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1190	529	583	2480	379	674
V/C Ratio(X)	1.60	0.46	1.32	0.64	0.63	0.93
Avail Cap(c_a), veh/h	1190	529	583	2480	385	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	33.9	43.6	10.7	46.4	50.0
Incr Delay (d2), s/veh	274.5	0.8	155.4	0.6	4.0	18.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	63.6	6.0	43.0	10.7	7.4	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	317.6	34.7	199.0	11.3	50.4	68.7
LnGrp LOS	F	C	F	B	D	E
Approach Vol, veh/h	2149			2356	864	
Approach Delay, s/veh	285.6			72.6	63.6	
Approach LOS	F			E	E	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	47.0	49.2			96.2	33.4
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	42.4	43.4			90.4	28.0
Max Q Clear Time (g_c+I1), s	44.4	45.4			33.6	27.0
Green Ext Time (p_c), s	0.0	0.0			25.1	0.6

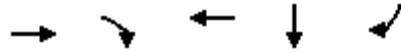
Intersection Summary

HCM 6th Ctrl Delay	156.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

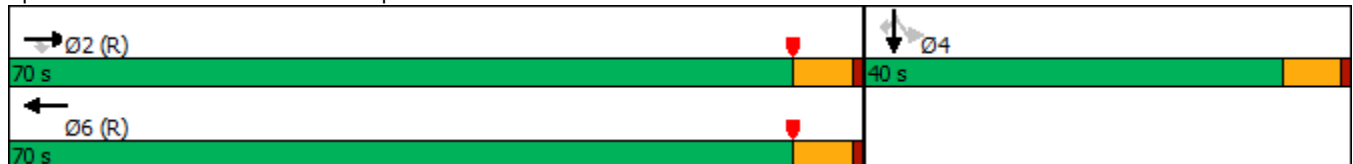


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	2259	856	1280	5	561
Future Volume (vph)	2259	856	1280	5	561
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	2259	856	0	1280	883	0	0	0	441	5	561
Future Volume (veh/h)	0	2259	856	0	1280	883	0	0	0	441	5	561
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2403	911	0	1362	939				469	5	597
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3091	946	0	2061	940				510	5	807
Arrive On Green	0.00	0.61	0.61	0.00	1.00	1.00				0.29	0.29	0.29
Sat Flow, veh/h	0	5274	1563	0	3572	1552				1763	19	2790
Grp Volume(v), veh/h	0	2403	911	0	1362	939				474	0	597
Grp Sat Flow(s),veh/h/ln	0	1702	1563	0	1702	1552				1782	0	1395
Q Serve(g_s), s	0.0	38.6	60.6	0.0	0.0	0.1				28.3	0.0	21.3
Cycle Q Clear(g_c), s	0.0	38.6	60.6	0.0	0.0	0.1				28.3	0.0	21.3
Prop In Lane	0.00		1.00	0.00		1.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	3091	946	0	2061	940				515	0	807
V/C Ratio(X)	0.00	0.78	0.96	0.00	0.66	1.00				0.92	0.00	0.74
Avail Cap(c_a), veh/h	0	3091	946	0	2061	940				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.48	0.48				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.2	20.5	0.0	0.0	0.0				37.9	0.0	35.4
Incr Delay (d2), s/veh	0.0	2.0	21.5	0.0	0.8	20.2				19.2	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.4	24.2	0.0	0.2	5.3				14.8	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.2	42.1	0.0	0.8	20.2				57.0	0.0	38.0
LnGrp LOS	A	B	D	A	A	C				E	A	D
Approach Vol, veh/h		3314			2301					1071		
Approach Delay, s/veh		24.7			8.7					46.4		
Approach LOS		C			A					D		
Timer - Assigned Phs		2			4					6		
Phs Duration (G+Y+Rc), s		72.4			37.6					72.4		
Change Period (Y+Rc), s		5.8			5.8					5.8		
Max Green Setting (Gmax), s		64.2			34.2					64.2		
Max Q Clear Time (g_c+1), s		62.6			30.3					2.1		
Green Ext Time (p_c), s		1.5			1.5					19.3		
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					22.7							
HCM 6th LOS					C							

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

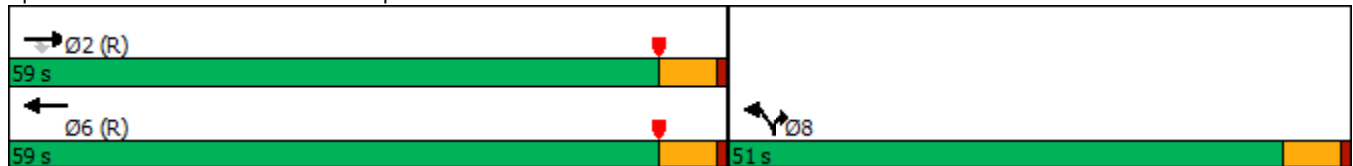


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↘	↗
Traffic Volume (vph)	1635	1018	1686	461	1027
Future Volume (vph)	1635	1018	1686	461	1027
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	43.8	43.8	22.0	22.0	22.0
Total Split (s)	59.0	59.0	59.0	51.0	51.0
Total Split (%)	53.6%	53.6%	53.6%	46.4%	46.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 12 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1635	1018	0	1686	461	1027
Future Volume (veh/h)	1635	1018	0	1686	461	1027
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1777	0	0	1833	788	808
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2714		0	2714	732	651
Arrive On Green	0.97	0.00	0.00	0.48	0.41	0.41
Sat Flow, veh/h	5611	1585	0	5611	1781	1585
Grp Volume(v), veh/h	1777	0	0	1833	788	808
Grp Sat Flow(s),veh/h/ln	1870	1585	0	1870	1781	1585
Q Serve(g_s), s	3.1	0.0	0.0	27.6	45.2	45.2
Cycle Q Clear(g_c), s	3.1	0.0	0.0	27.6	45.2	45.2
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2714		0	2714	732	651
V/C Ratio(X)	0.65		0.00	0.68	1.08	1.24
Avail Cap(c_a), veh/h	2714		0	2714	732	651
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	1.0	0.0	0.0	21.8	32.4	32.4
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.1	55.8	121.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	11.1	29.8	38.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.6	0.0	0.0	21.9	88.2	153.4
LnGrp LOS	A		A	C	F	F
Approach Vol, veh/h	1777	A		1833	1596	
Approach Delay, s/veh	1.6			21.9	121.2	
Approach LOS	A			C	F	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		59.0			59.0	51.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		53.2			53.2	45.2
Max Q Clear Time (g_c+I1), s		5.1			29.6	47.2
Green Ext Time (p_c), s		11.2			9.8	0.0

Intersection Summary

HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.  
 Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.



Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

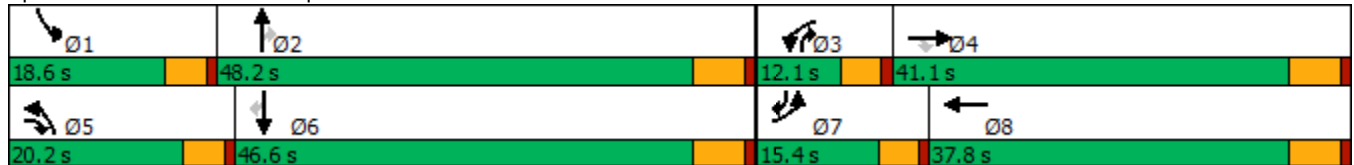
12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	275	900	410	169	947	317	181	102	198	401	531	
Future Volume (vph)	275	900	410	169	947	317	181	102	198	401	531	
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	
Protected Phases	7	4	5	3	8	5	2	3	1	6	7	
Permitted Phases			4					2			6	
Detector Phase	7	4	5	3	8	5	2	3	1	6	7	
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6	
Total Split (s)	15.4	41.1	20.2	12.1	37.8	20.2	48.2	12.1	18.6	46.6	15.4	
Total Split (%)	12.8%	34.3%	16.8%	10.1%	31.5%	16.8%	40.2%	10.1%	15.5%	38.8%	12.8%	
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 107  
 Natural Cycle: 115  
 Control Type: Actuated-Uncoordinated
































Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	  		 	 			 	
Traffic Volume (veh/h)	275	900	410	169	947	73	317	181	102	198	401	531
Future Volume (veh/h)	275	900	410	169	947	73	317	181	102	198	401	531
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	989	304	186	1041	75	348	199	74	218	441	488
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	1101	680	239	1358	98	411	1069	586	230	581	650
Arrive On Green	0.10	0.31	0.31	0.07	0.28	0.28	0.12	0.30	0.30	0.13	0.31	0.31
Sat Flow, veh/h	3456	3554	1585	3456	4862	350	3456	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	302	989	304	186	728	388	348	199	74	218	441	488
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1807	1728	1777	1585	1781	1870	1585
Q Serve(g_s), s	9.4	28.9	14.7	5.8	21.3	21.4	10.7	4.5	3.4	13.2	23.1	28.5
Cycle Q Clear(g_c), s	9.4	28.9	14.7	5.8	21.3	21.4	10.7	4.5	3.4	13.2	23.1	28.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1101	680	239	951	505	411	1069	586	230	581	650
V/C Ratio(X)	0.88	0.90	0.45	0.78	0.77	0.77	0.85	0.19	0.13	0.95	0.76	0.75
Avail Cap(c_a), veh/h	344	1155	704	239	1003	533	496	1388	728	230	703	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	35.8	21.9	49.7	35.9	35.9	46.9	28.1	22.6	46.9	33.8	27.3
Incr Delay (d2), s/veh	21.2	9.3	0.5	13.9	3.4	6.3	9.5	0.1	0.1	44.9	3.9	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	13.2	5.2	2.9	8.9	9.9	5.0	1.9	1.2	8.5	10.6	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.5	45.1	22.4	63.6	39.3	42.2	56.4	28.2	22.7	91.8	37.7	30.9
LnGrp LOS	E	D	C	E	D	D	E	C	C	F	D	C
Approach Vol, veh/h		1595			1302			621			1147	
Approach Delay, s/veh		45.4			43.6			43.3			45.1	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	38.5	12.1	39.4	17.5	39.5	15.4	36.1				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.0	42.4	7.5	35.3	15.6	40.8	10.8	32.0				
Max Q Clear Time (g_c+1), s	15.2	6.5	7.8	30.9	12.7	30.5	11.4	23.4				
Green Ext Time (p_c), s	0.0	1.4	0.0	2.7	0.2	3.2	0.0	4.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			44.6									
HCM 6th LOS			D									

Timings  
8: Baxter Rd. & Warm Springs Rd.

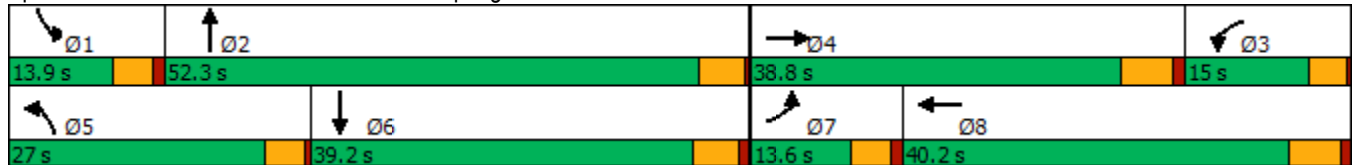


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↑↑	↙	↑↑	↙	↑↑	↙	↑↑
Traffic Volume (vph)	113	190	185	618	367	405	53	700
Future Volume (vph)	113	190	185	618	367	405	53	700
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	38.8	9.0	38.8	9.1	25.6	9.6	26.1
Total Split (s)	13.6	38.8	15.0	40.2	27.0	52.3	13.9	39.2
Total Split (%)	11.3%	32.3%	12.5%	33.5%	22.5%	43.6%	11.6%	32.7%
Yellow Time (s)	3.6	4.8	3.5	4.8	3.6	4.1	3.6	4.1
All-Red Time (s)	1.0	1.0	0.5	1.0	0.5	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.0	5.8	4.1	4.6	4.6	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	Min	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 117.8  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

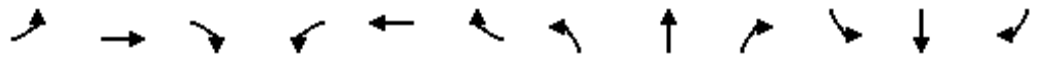
Splits and Phases: 8: Baxter Rd. & Warm Springs Rd.



HCM 6th Signalized Intersection Summary  
8: Baxter Rd. & Warm Springs Rd.

Discovery Village (JN:14073)

03/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑		↘	↑↑		↘	↑↑		↘	↑↑	
Traffic Volume (veh/h)	113	190	276	185	618	127	367	405	151	53	700	261
Future Volume (veh/h)	113	190	276	185	618	127	367	405	151	53	700	261
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	196	164	201	637	54	399	440	82	55	761	145
Peak Hour Factor	0.97	0.97	0.92	0.92	0.97	0.97	0.92	0.92	0.92	0.97	0.92	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	286	227	285	803	68	375	1329	246	87	855	163
Arrive On Green	0.08	0.15	0.15	0.16	0.24	0.24	0.21	0.44	0.44	0.05	0.29	0.29
Sat Flow, veh/h	1781	1886	1493	1781	3311	280	1781	2993	554	1781	2977	567
Grp Volume(v), veh/h	116	184	176	201	341	350	399	260	262	55	454	452
Grp Sat Flow(s),veh/h/ln	1781	1777	1602	1781	1777	1815	1781	1777	1771	1781	1777	1768
Q Serve(g_s), s	7.0	10.7	11.4	11.6	19.6	19.7	22.9	10.4	10.5	3.3	26.6	26.7
Cycle Q Clear(g_c), s	7.0	10.7	11.4	11.6	19.6	19.7	22.9	10.4	10.5	3.3	26.6	26.7
Prop In Lane	1.00		0.93	1.00		0.15	1.00		0.31	1.00		0.32
Lane Grp Cap(c), veh/h	142	270	243	285	431	440	375	789	786	87	510	507
V/C Ratio(X)	0.81	0.68	0.72	0.71	0.79	0.79	1.06	0.33	0.33	0.63	0.89	0.89
Avail Cap(c_a), veh/h	147	539	485	285	561	573	375	789	786	152	557	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	43.7	44.0	43.3	38.7	38.7	43.0	19.7	19.7	50.8	37.2	37.2
Incr Delay (d2), s/veh	25.8	4.8	6.3	6.6	7.2	7.1	64.8	0.2	0.2	2.8	15.5	15.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.9	4.8	5.5	9.0	9.2	16.7	4.3	4.3	1.5	13.5	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	48.5	50.3	50.0	45.8	45.8	107.7	20.0	20.0	53.6	52.7	52.8
LnGrp LOS	E	D	D	D	D	D	F	B	B	D	D	D
Approach Vol, veh/h		476			892			921			961	
Approach Delay, s/veh		55.6			46.8			58.0			52.8	
Approach LOS		E			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	53.4	23.2	22.3	27.0	36.4	13.3	32.2				
Change Period (Y+Rc), s	4.6	* 5.1	5.8	* 5.8	4.1	5.1	4.6	5.8				
Max Green Setting (Gmax), s	9.3	* 48	11.0	* 33	22.9	34.1	9.0	34.4				
Max Q Clear Time (g_c+I1), s	5.3	12.5	13.6	13.4	24.9	28.7	9.0	21.7				
Green Ext Time (p_c), s	0.0	3.5	0.0	2.9	0.0	2.6	0.0	4.6				

Intersection Summary

HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
17: Menifee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

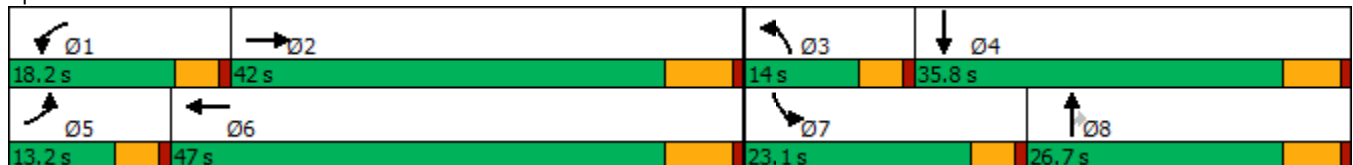


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	89	792	275	1049	254	261	286	175	499
Future Volume (vph)	89	792	275	1049	254	261	286	175	499
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	13.2	42.0	18.2	47.0	14.0	26.7	26.7	23.1	35.8
Total Split (%)	12.0%	38.2%	16.5%	42.7%	12.7%	24.3%	24.3%	21.0%	32.5%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary


























Cycle Length: 110  
 Actuated Cycle Length: 110  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Menifee Rd. & Scott Rd.



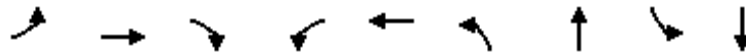
HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	89	792	159	275	1049	151	254	261	286	175	499	157
Future Volume (veh/h)	89	792	159	275	1049	151	254	261	286	175	499	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	870	164	302	1153	154	279	287	246	192	548	169
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	956	180	221	1180	157	153	438	366	223	373	115
Arrive On Green	0.07	0.32	0.32	0.12	0.38	0.38	0.09	0.23	0.23	0.13	0.27	0.27
Sat Flow, veh/h	1781	2984	562	1781	3143	418	1781	1870	1562	1781	1364	421
Grp Volume(v), veh/h	98	518	516	302	650	657	279	287	246	192	0	717
Grp Sat Flow(s),veh/h/ln	1781	1777	1769	1781	1777	1784	1781	1870	1562	1781	0	1785
Q Serve(g_s), s	5.9	30.7	30.7	13.6	39.5	39.9	9.4	15.2	15.7	11.6	0.0	30.0
Cycle Q Clear(g_c), s	5.9	30.7	30.7	13.6	39.5	39.9	9.4	15.2	15.7	11.6	0.0	30.0
Prop In Lane	1.00		0.32	1.00		0.23	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	123	569	567	221	667	670	153	438	366	223	0	489
V/C Ratio(X)	0.80	0.91	0.91	1.37	0.97	0.98	1.83	0.66	0.67	0.86	0.00	1.47
Avail Cap(c_a), veh/h	140	576	573	221	667	670	153	438	366	301	0	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.3	35.7	35.7	48.0	33.7	33.8	50.1	38.0	38.2	47.0	0.0	39.8
Incr Delay (d2), s/veh	24.4	21.1	21.2	191.0	29.2	30.2	396.2	6.6	8.5	16.9	0.0	221.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	15.5	15.5	17.4	20.8	21.2	20.9	7.5	6.6	6.0	0.0	42.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.6	56.8	56.9	239.0	62.9	64.1	446.3	44.6	46.7	63.8	0.0	261.1
LnGrp LOS	E	E	E	F	E	E	F	D	D	E	A	F
Approach Vol, veh/h		1132			1609			812			909	
Approach Delay, s/veh		58.4			96.4			183.3			219.4	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	41.6	14.0	35.8	12.2	47.7	18.3	31.5				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	13.6	35.5	9.4	30.0	8.6	40.5	18.5	20.9				
Max Q Clear Time (g_c+I1), s	15.6	32.7	11.4	32.0	7.9	41.9	13.6	17.7				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.0	0.2	1.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	127.6											
HCM 6th LOS	F											

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/06/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	93	144	64	195	355	38	472	57	780
Future Volume (vph)	93	144	64	195	355	38	472	57	780
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

























Cycle Length: 120  
 Actuated Cycle Length: 102.9  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
 12/06/2021

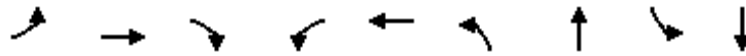
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	144	64	195	355	119	38	472	72	57	780	152
Future Volume (veh/h)	93	144	64	195	355	119	38	472	72	57	780	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	160	54	217	394	124	42	524	78	63	867	162
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	395	329	181	636	198	76	1282	190	93	1263	236
Arrive On Green	0.07	0.21	0.21	0.10	0.24	0.24	0.04	0.41	0.41	0.05	0.42	0.42
Sat Flow, veh/h	1781	1870	1558	1781	2657	826	1781	3090	458	1781	2978	556
Grp Volume(v), veh/h	103	160	54	217	262	256	42	300	302	63	517	512
Grp Sat Flow(s),veh/h/ln	1781	1870	1558	1781	1777	1706	1781	1777	1771	1781	1777	1757
Q Serve(g_s), s	5.3	6.8	2.6	9.4	12.2	12.4	2.1	11.0	11.1	3.2	21.9	21.9
Cycle Q Clear(g_c), s	5.3	6.8	2.6	9.4	12.2	12.4	2.1	11.0	11.1	3.2	21.9	21.9
Prop In Lane	1.00		1.00	1.00		0.48	1.00		0.26	1.00		0.32
Lane Grp Cap(c), veh/h	131	395	329	181	425	408	76	737	735	93	754	745
V/C Ratio(X)	0.79	0.41	0.16	1.20	0.62	0.63	0.55	0.41	0.41	0.68	0.69	0.69
Avail Cap(c_a), veh/h	181	647	539	181	614	590	181	937	934	181	937	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	31.5	29.8	41.6	31.4	31.5	43.4	19.1	19.1	43.1	21.7	21.7
Incr Delay (d2), s/veh	14.5	3.1	1.1	130.9	6.5	7.1	6.1	1.4	1.4	8.4	4.3	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.3	1.0	10.6	5.8	5.7	1.0	4.4	4.5	1.6	9.1	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	34.6	30.9	172.4	37.9	38.6	49.5	20.5	20.5	51.6	26.0	26.0
LnGrp LOS	E	C	C	F	D	D	D	C	C	D	C	C
Approach Vol, veh/h		317			735			644			1092	
Approach Delay, s/veh		41.1			77.9			22.4			27.5	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	44.2	14.0	24.9	8.6	45.1	11.4	27.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	32.0	9.4	48.8	9.4	32.0				
Max Q Clear Time (g_c+I1), s	5.2	13.1	11.4	8.8	4.1	23.9	7.3	14.4				
Green Ext Time (p_c), s	0.0	10.0	0.0	3.0	0.0	15.4	0.0	7.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			41.1									
HCM 6th LOS			D									



Timings  
19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)

12/06/2021

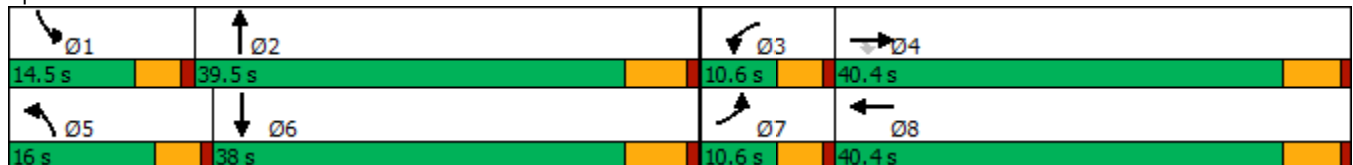


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	222	13	159	54	45	269	574	13	1074
Future Volume (vph)	222	13	159	54	45	269	574	13	1074
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	16.0	39.5	14.5	38.0
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	15.2%	37.6%	13.8%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary























Cycle Length: 105  
 Actuated Cycle Length: 78.2  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	13	159	54	45	6	269	574	45	13	1074	616
Future Volume (veh/h)	222	13	159	54	45	6	269	574	45	13	1074	616
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	231	14	164	56	47	3	280	598	24	14	1119	638
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	279	237	95	434	27	253	1820	73	36	893	476
Arrive On Green	0.07	0.15	0.15	0.05	0.13	0.13	0.14	0.52	0.52	0.02	0.40	0.40
Sat Flow, veh/h	1781	1870	1585	1781	3390	214	1781	3478	139	1781	2226	1187
Grp Volume(v), veh/h	231	14	164	56	24	26	280	305	317	14	878	879
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1828	1781	1777	1841	1781	1777	1636
Q Serve(g_s), s	6.0	0.5	7.9	2.5	1.0	1.0	11.4	7.9	8.0	0.6	32.2	32.2
Cycle Q Clear(g_c), s	6.0	0.5	7.9	2.5	1.0	1.0	11.4	7.9	8.0	0.6	32.2	32.2
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.08	1.00		0.73
Lane Grp Cap(c), veh/h	133	279	237	95	227	234	253	930	963	36	713	656
V/C Ratio(X)	1.73	0.05	0.69	0.59	0.11	0.11	1.11	0.33	0.33	0.39	1.23	1.34
Avail Cap(c_a), veh/h	133	816	691	133	775	797	253	930	963	220	713	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	29.3	32.4	37.1	30.9	31.0	34.4	11.0	11.0	38.8	24.0	24.0
Incr Delay (d2), s/veh	360.0	0.1	4.9	5.7	0.3	0.3	88.2	0.3	0.3	6.9	116.0	163.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	0.2	3.2	1.2	0.4	0.4	10.8	2.7	2.8	0.3	34.6	40.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	397.1	29.4	37.3	42.8	31.2	31.2	122.6	11.3	11.3	45.7	140.1	187.3
LnGrp LOS	F	C	D	D	C	C	F	B	B	D	F	F
Approach Vol, veh/h		409			106			902			1771	
Approach Delay, s/veh		240.3			37.4			45.9			162.8	
Approach LOS		F			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	47.8	8.9	17.4	16.0	38.0	10.6	15.7				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	11.4	32.2	6.0	35.0				
Max Q Clear Time (g_c+I1), s	2.6	10.0	4.5	9.9	13.4	34.2	8.0	3.0				
Green Ext Time (p_c), s	0.0	5.5	0.0	0.8	0.0	0.0	0.0	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	135.5											
HCM 6th LOS	F											

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	15	15	873	15	15	1272
Future Vol, veh/h	15	15	873	15	15	1272
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	959	16	16	1398

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1699	489	0	0	976
Stage 1	968	-	-	-	-
Stage 2	731	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	83	525	-	-	703
Stage 1	329	-	-	-	-
Stage 2	437	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	74	525	-	-	702
Mov Cap-2 Maneuver	249	-	-	-	-
Stage 1	329	-	-	-	-
Stage 2	392	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	338	702
HCM Lane V/C Ratio	-	-	0.098	0.023
HCM Control Delay (s)	-	-	16.8	10.3
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/06/2021

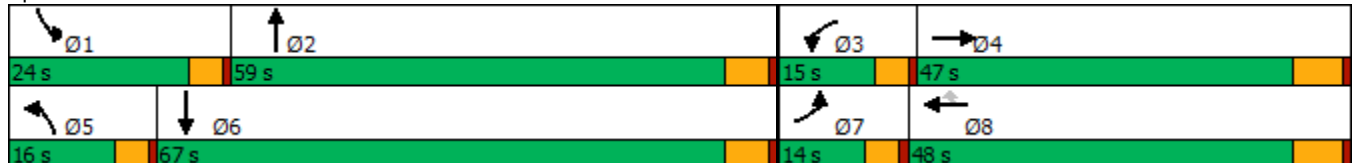


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↖↗	↕↔	↖↗	↕↔	↖	↗	↕↔	↖	↕↔
Traffic Volume (vph)	205	1093	291	1386	179	203	1123	620	1542
Future Volume (vph)	205	1093	291	1386	179	203	1123	620	1542
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	14.0	47.0	15.0	48.0	48.0	16.0	59.0	24.0	67.0
Total Split (%)	9.7%	32.4%	10.3%	33.1%	33.1%	11.0%	40.7%	16.6%	46.2%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↔		↔↔	↑↑↑	↔	↔	↑↔		↔	↑↔	
Traffic Volume (veh/h)	205	1093	387	291	1386	179	203	1123	488	620	1542	139
Future Volume (veh/h)	205	1093	387	291	1386	179	203	1123	488	620	1542	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.94	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	236	1256	445	334	1593	206	233	1291	561	713	1772	160
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	999	352	248	1461	427	140	887	352	238	1387	123
Arrive On Green	0.06	0.28	0.28	0.07	0.29	0.29	0.08	0.37	0.37	0.13	0.42	0.42
Sat Flow, veh/h	3456	3575	1259	3456	5106	1494	1781	2418	960	1781	3287	291
Grp Volume(v), veh/h	236	1195	506	334	1593	206	233	916	936	713	942	990
Grp Sat Flow(s),veh/h/ln	1728	1702	1430	1728	1702	1494	1781	1777	1601	1781	1777	1801
Q Serve(g_s), s	9.4	40.5	40.5	10.4	41.5	16.6	11.4	53.2	53.2	19.4	61.2	61.2
Cycle Q Clear(g_c), s	9.4	40.5	40.5	10.4	41.5	16.6	11.4	53.2	53.2	19.4	61.2	61.2
Prop In Lane	1.00		0.88	1.00		1.00	1.00		0.60	1.00		0.16
Lane Grp Cap(c), veh/h	224	951	399	248	1461	427	140	652	587	238	750	760
V/C Ratio(X)	1.05	1.26	1.27	1.35	1.09	0.48	1.66	1.41	1.59	2.99	1.26	1.30
Avail Cap(c_a), veh/h	224	951	399	248	1461	427	140	652	587	238	750	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.8	52.3	52.3	67.3	51.8	42.8	66.8	45.9	45.9	62.8	41.9	41.9
Incr Delay (d2), s/veh	74.9	124.4	138.1	180.8	52.1	1.8	328.0	191.6	274.8	907.5	125.9	145.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	33.2	29.4	10.7	24.2	6.2	17.9	57.3	65.2	68.7	51.8	56.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	142.7	176.7	190.3	248.1	103.9	44.6	394.8	237.5	320.7	970.3	167.8	187.6
LnGrp LOS	F	F	F	F	F	D	F	F	F	F	F	F
Approach Vol, veh/h		1937			2133			2085			2645	
Approach Delay, s/veh		176.1			120.7			292.4			391.5	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	59.0	15.0	47.0	16.0	67.0	14.0	48.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	19.4	53.2	10.4	40.5	11.4	61.2	9.4	41.5				
Max Q Clear Time (g_c+I1), s	21.4	55.2	12.4	42.5	13.4	63.2	11.4	43.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	255.0
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

Discovery Village (JN:14073)

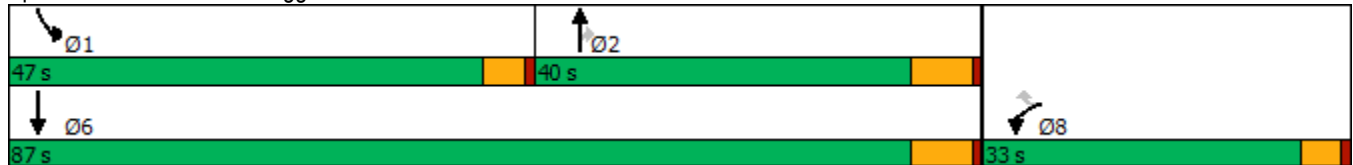
12/06/2021

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖↖	↖	↗↗	↗	↖↖	↖↖
Traffic Volume (vph)	218	891	707	273	926	602
Future Volume (vph)	218	891	707	273	926	602
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	28.5	28.5	9.6	24.5
Total Split (s)	33.0	33.0	40.0	40.0	47.0	87.0
Total Split (%)	27.5%	27.5%	33.3%	33.3%	39.2%	72.5%
Yellow Time (s)	3.6	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	6.5	6.5	4.6	6.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 93.5  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.



HCM 6th Signalized Intersection Summary  
 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶↶	↶	↕↕	↷	↶↶	↕↕
Traffic Volume (veh/h)	218	891	707	273	926	602
Future Volume (veh/h)	218	891	707	273	926	602
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	234	958	760	294	996	647
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	489	870	924	412	1084	2197
Arrive On Green	0.27	0.27	0.26	0.26	0.31	0.62
Sat Flow, veh/h	1781	3170	3647	1585	3456	3647
Grp Volume(v), veh/h	234	958	760	294	996	647
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1728	1777
Q Serve(g_s), s	11.4	28.4	20.8	17.4	28.8	8.8
Cycle Q Clear(g_c), s	11.4	28.4	20.8	17.4	28.8	8.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	489	870	924	412	1084	2197
V/C Ratio(X)	0.48	1.10	0.82	0.71	0.92	0.29
Avail Cap(c_a), veh/h	489	870	1151	513	1416	2765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	37.5	36.0	34.8	34.2	9.2
Incr Delay (d2), s/veh	0.7	62.0	4.0	3.5	7.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	17.6	8.9	6.6	12.1	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.1	99.5	40.0	38.3	41.4	9.3
LnGrp LOS	C	F	D	D	D	A
Approach Vol, veh/h	1192		1054			1643
Approach Delay, s/veh	86.3		39.5			28.8
Approach LOS	F		D			C
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	37.0	33.4			70.5	33.0
Change Period (Y+Rc), s	4.6	6.5			6.5	4.6
Max Green Setting (Gmax), s	42.4	33.5			80.5	28.4
Max Q Clear Time (g_c+I1), s	30.8	22.8			10.8	30.4
Green Ext Time (p_c), s	1.7	4.1			4.2	0.0

Intersection Summary

HCM 6th Ctrl Delay	49.3
HCM 6th LOS	D

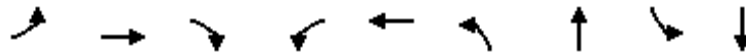
Notes

User approved volume balancing among the lanes for turning movement.

Timings  
24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/06/2021

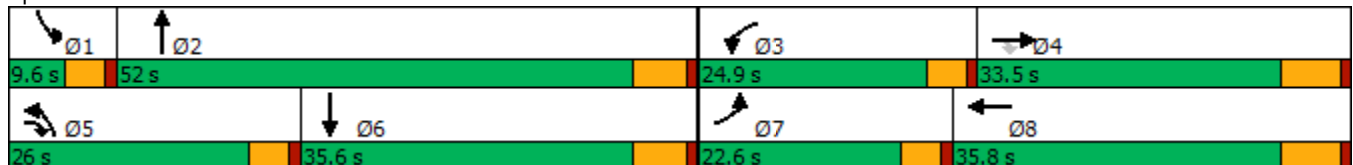


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↖↖	↑↑	↖↖	↑↑
Traffic Volume (vph)	391	435	819	555	806	698	504	39	766
Future Volume (vph)	391	435	819	555	806	698	504	39	766
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	22.6	33.5	26.0	24.9	35.8	26.0	52.0	9.6	35.6
Total Split (%)	18.8%	27.9%	21.7%	20.8%	29.8%	21.7%	43.3%	8.0%	29.7%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 117.6  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



































HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	391	435	819	555	806	28	698	504	306	39	766	311
Future Volume (veh/h)	391	435	819	555	806	28	698	504	306	39	766	311
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	399	444	224	566	822	15	712	514	206	40	782	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	459	747	615	617	893	16	672	1032	412	113	851	67
Arrive On Green	0.19	0.30	0.30	0.26	0.37	0.37	0.28	0.61	0.61	0.05	0.37	0.37
Sat Flow, veh/h	3563	3741	1580	3563	3662	67	3563	2542	1014	3563	3420	271
Grp Volume(v), veh/h	399	444	224	566	420	417	712	378	342	40	428	416
Grp Sat Flow(s),veh/h/ln	1781	1870	1580	1781	1870	1858	1781	1870	1685	1781	1870	1821
Q Serve(g_s), s	12.3	11.5	10.9	17.5	24.3	24.3	21.4	12.8	13.0	1.2	24.7	24.7
Cycle Q Clear(g_c), s	12.3	11.5	10.9	17.5	24.3	24.3	21.4	12.8	13.0	1.2	24.7	24.7
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.60	1.00		0.15
Lane Grp Cap(c), veh/h	459	747	615	617	456	453	672	759	684	113	466	453
V/C Ratio(X)	0.87	0.59	0.36	0.92	0.92	0.92	1.06	0.50	0.50	0.36	0.92	0.92
Avail Cap(c_a), veh/h	565	891	675	638	483	480	672	762	686	157	491	478
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	35.8	21.5	41.2	34.9	34.9	40.7	15.7	15.7	52.9	34.4	34.4
Incr Delay (d2), s/veh	10.2	0.8	0.4	17.5	22.3	22.4	51.4	0.5	0.6	0.7	21.8	22.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	4.7	3.5	8.1	11.9	11.8	12.9	4.4	4.0	0.5	12.2	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	36.6	21.9	58.7	57.2	57.3	92.1	16.2	16.3	53.6	56.2	56.7
LnGrp LOS	E	D	C	E	E	E	F	B	B	D	E	E
Approach Vol, veh/h		1067			1403			1432			884	
Approach Delay, s/veh		40.4			57.8			54.0			56.3	
Approach LOS		D			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	51.8	24.2	29.1	26.0	34.0	19.2	34.2				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	46.2	20.3	27.0	21.4	29.8	18.0	29.3				
Max Q Clear Time (g_c+I1), s	3.2	15.0	19.5	13.5	23.4	26.7	14.3	26.3				
Green Ext Time (p_c), s	0.0	4.5	0.1	2.7	0.0	1.4	0.3	1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			52.5									
HCM 6th LOS			D									

Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

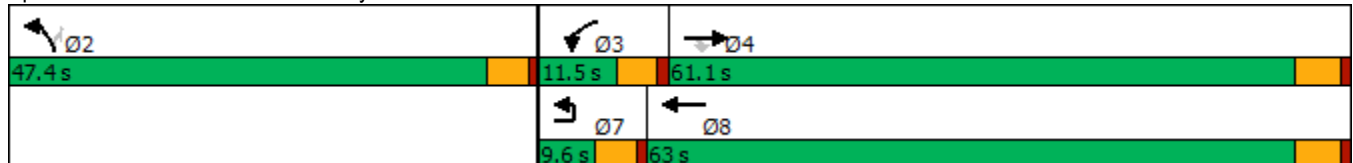


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	2475	453	102	2050	470	184	
Future Volume (vph)	2475	453	102	2050	470	184	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	61.1	61.1	11.5	63.0	47.4	47.4	9.6
Total Split (%)	50.9%	50.9%	9.6%	52.5%	39.5%	39.5%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 113  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	0	2475	453	102	2050	470	184
Future Volume (veh/h)	0	2475	453	102	2050	470	184
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		2605	368	107	2158	495	175
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1795	801	111	1139	539	480
Arrive On Green		0.51	0.51	0.06	0.61	0.30	0.30
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		2605	368	107	2158	495	175
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		56.0	16.6	6.6	67.5	29.7	9.6
Cycle Q Clear(g_c), s		56.0	16.6	6.6	67.5	29.7	9.6
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1795	801	111	1139	539	480
V/C Ratio(X)		1.45	0.46	0.97	1.90	0.92	0.36
Avail Cap(c_a), veh/h		1795	801	111	1139	686	610
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		27.4	17.7	51.9	21.7	37.3	30.3
Incr Delay (d2), s/veh		206.3	0.4	73.8	406.1	14.9	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		73.4	5.9	5.2	154.5	15.0	3.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		233.7	18.1	125.7	427.8	52.3	30.8
LnGrp LOS		F	B	F	F	D	C
Approach Vol, veh/h		2973			2265	670	
Approach Delay, s/veh		207.0			413.5	46.6	
Approach LOS		F			F	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		38.3	11.5	61.1			72.6
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 43	6.9	56.0			57.9
Max Q Clear Time (g_c+I1), s		31.7	8.6	58.0			69.5
Green Ext Time (p_c), s		1.8	0.0	0.0			0.0

Intersection Summary

HCM 6th Ctrl Delay	268.0
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1417	163	659	1223	131	132	105	536	162	78	36
Future Volume (vph)	64	1417	163	659	1223	131	132	105	536	162	78	36
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	31.8	31.8	31.8	31.8	31.8	11.8	11.8	11.8
Total Split (s)	13.9	48.2	48.2	30.0	64.3	64.3	31.8	31.8	31.8	31.8	31.8	31.8
Total Split (%)	12.6%	43.8%	43.8%	27.3%	58.5%	58.5%	28.9%	28.9%	28.9%	28.9%	28.9%	28.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 106.7  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated




























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



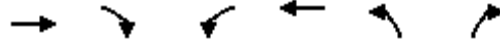
HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	64	1417	163	659	1223	131	132	105	536	162	78	36
Future Volume (veh/h)	64	1417	163	659	1223	131	132	105	536	162	78	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1507	152	701	1301	105	140	112	358	172	83	35
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	1370	594	411	2016	879	321	442	368	238	442	370
Arrive On Green	0.05	0.39	0.39	0.23	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3554	1542	1781	3554	1550	1274	1870	1557	921	1870	1565
Grp Volume(v), veh/h	68	1507	152	701	1301	105	140	112	358	172	83	35
Grp Sat Flow(s),veh/h/ln	1781	1777	1542	1781	1777	1550	1274	1870	1557	921	1870	1565
Q Serve(g_s), s	4.2	42.4	7.4	25.4	27.5	3.5	10.9	5.4	25.1	20.5	3.9	1.9
Cycle Q Clear(g_c), s	4.2	42.4	7.4	25.4	27.5	3.5	14.8	5.4	25.1	25.9	3.9	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	1370	594	411	2016	879	321	442	368	238	442	370
V/C Ratio(X)	0.78	1.10	0.26	1.70	0.65	0.12	0.44	0.25	0.97	0.72	0.19	0.09
Avail Cap(c_a), veh/h	151	1370	594	411	2016	879	321	442	368	238	442	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	33.8	23.0	42.3	16.3	11.1	39.5	34.1	41.7	44.6	33.6	32.8
Incr Delay (d2), s/veh	13.6	56.6	0.3	327.2	0.8	0.1	1.2	0.4	39.7	10.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	27.7	2.6	48.0	10.2	1.1	3.5	2.5	13.6	5.3	1.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	90.4	23.4	369.5	17.1	11.1	40.6	34.5	81.3	55.3	33.8	32.9
LnGrp LOS	E	F	C	F	B	B	D	C	F	E	C	C
Approach Vol, veh/h		1727			2107			610			290	
Approach Delay, s/veh		83.5			134.0			63.4			46.5	
Approach LOS		F			F			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	48.2		31.8	10.0	68.2		31.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	25.4	42.4		26.0	9.3	58.5		26.0				
Max Q Clear Time (g_c+I1), s	27.4	44.4		27.9	6.2	29.5		27.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	15.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	101.1											
HCM 6th LOS	F											

Timings  
3: California Oaks St. & Clinton Keith Rd.

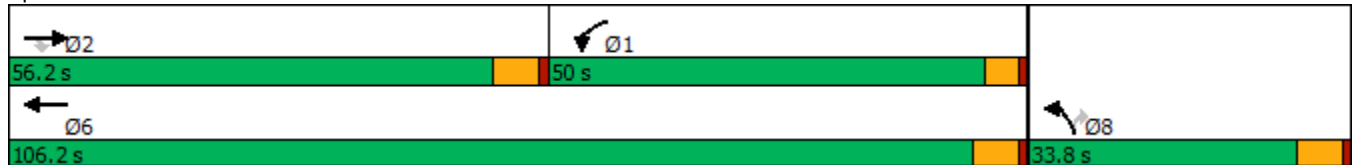


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1893	193	1064	1793	193	985
Future Volume (vph)	1893	193	1064	1793	193	985
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	32.8	32.8	10.6	15.8	33.8	33.8
Total Split (s)	56.2	56.2	50.0	106.2	33.8	33.8
Total Split (%)	40.1%	40.1%	35.7%	75.9%	24.1%	24.1%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 136.7  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	1893	193	1064	1793	193	985
Future Volume (veh/h)	1893	193	1064	1793	193	985
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2080	179	1169	1970	212	956
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1268	553	573	2557	353	629
Arrive On Green	0.36	0.36	0.32	0.72	0.20	0.20
Sat Flow, veh/h	3647	1550	1781	3647	1781	3170
Grp Volume(v), veh/h	2080	179	1169	1970	212	956
Grp Sat Flow(s),veh/h/ln	1777	1550	1781	1777	1781	1585
Q Serve(g_s), s	50.4	11.9	45.4	49.3	15.3	28.0
Cycle Q Clear(g_c), s	50.4	11.9	45.4	49.3	15.3	28.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1268	553	573	2557	353	629
V/C Ratio(X)	1.64	0.32	2.04	0.77	0.60	1.52
Avail Cap(c_a), veh/h	1268	553	573	2557	353	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	33.0	47.9	12.5	51.5	56.6
Incr Delay (d2), s/veh	291.5	0.4	474.6	1.6	3.6	242.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	72.7	4.4	94.9	17.1	7.1	32.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	336.9	33.5	522.5	14.0	55.1	299.0
LnGrp LOS	F	C	F	B	E	F
Approach Vol, veh/h	2259			3139	1168	
Approach Delay, s/veh	312.9			203.4	254.7	
Approach LOS	F			F	F	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	51.2	56.2			107.4	33.8
Change Period (Y+Rc), s	5.8	* 5.8			5.8	5.8
Max Green Setting (Gmax), s	45.4	* 50			100.4	28.0
Max Q Clear Time (g_c+I1), s	47.4	52.4			51.3	30.0
Green Ext Time (p_c), s	0.0	0.0			32.7	0.0

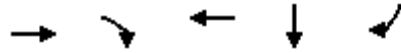
Intersection Summary

HCM 6th Ctrl Delay	250.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

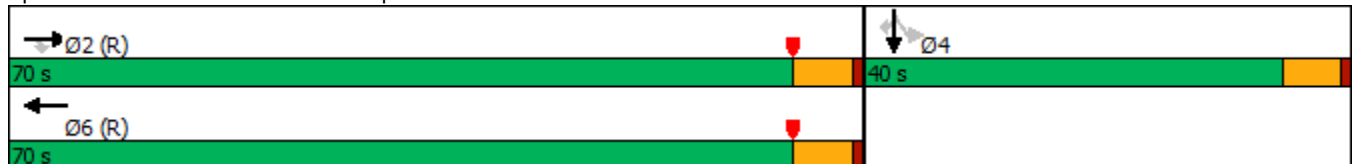


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↓	↑↑
Traffic Volume (vph)	2225	799	2067	1	842
Future Volume (vph)	2225	799	2067	1	842
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated

Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.

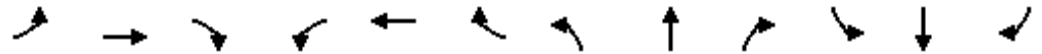




HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	2225	799	0	2067	727	0	0	0	468	1	842
Future Volume (veh/h)	0	2225	799	0	2067	727	0	0	0	468	1	842
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2318	832	0	2153	757				488	1	877
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	2980	910	0	2239	697				553	1	867
Arrive On Green	0.00	0.58	0.58	0.00	1.00	1.00				0.31	0.31	0.31
Sat Flow, veh/h	0	5274	1560	0	4004	1194				1778	4	2790
Grp Volume(v), veh/h	0	2318	832	0	1879	1031				489	0	877
Grp Sat Flow(s),veh/h/ln	0	1702	1560	0	1702	1626				1781	0	1395
Q Serve(g_s), s	0.0	38.1	52.4	0.0	0.0	64.2				28.7	0.0	34.2
Cycle Q Clear(g_c), s	0.0	38.1	52.4	0.0	0.0	64.2				28.7	0.0	34.2
Prop In Lane	0.00		1.00	0.00		0.73				1.00		1.00
Lane Grp Cap(c), veh/h	0	2980	910	0	1987	949				554	0	867
V/C Ratio(X)	0.00	0.78	0.91	0.00	0.95	1.09				0.88	0.00	1.01
Avail Cap(c_a), veh/h	0	2980	910	0	1987	949				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.09	0.09				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.5	20.4	0.0	0.0	0.0				36.0	0.0	37.9
Incr Delay (d2), s/veh	0.0	2.1	15.1	0.0	1.4	40.9				15.0	0.0	33.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.6	20.2	0.0	0.4	10.8				14.4	0.0	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.5	35.6	0.0	1.4	40.9				51.0	0.0	71.2
LnGrp LOS	A	B	D	A	A	F				D	A	F
Approach Vol, veh/h		3150			2910					1366		
Approach Delay, s/veh		23.8			15.3					64.0		
Approach LOS		C			B					E		
Timer - Assigned Phs		2			4					6		
Phs Duration (G+Y+Rc), s		70.0			40.0					70.0		
Change Period (Y+Rc), s		5.8			5.8					5.8		
Max Green Setting (Gmax), s		64.2			34.2					64.2		
Max Q Clear Time (g_c+I1), s		54.4			36.2					66.2		
Green Ext Time (p_c), s		8.1			0.0					0.0		
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			27.9									
HCM 6th LOS			C									

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

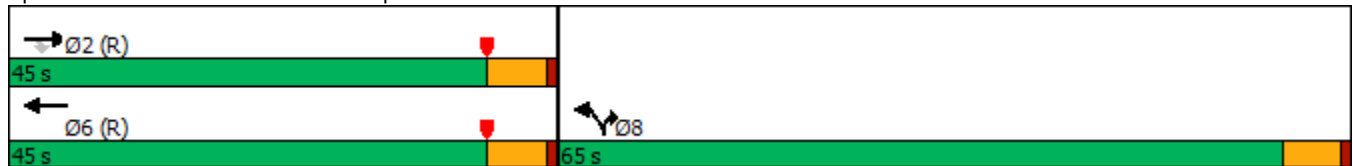


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑
Traffic Volume (vph)	1767	883	1701	1099	1146
Future Volume (vph)	1767	883	1701	1099	1146
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.8	23.8	10.8	10.8	10.8
Total Split (s)	45.0	45.0	45.0	65.0	65.0
Total Split (%)	40.9%	40.9%	40.9%	59.1%	59.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1767	883	0	1701	1099	1146
Future Volume (veh/h)	1767	883	0	1701	1099	1146
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1860	0	0	1791	1157	574
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2000		0	2000	959	853
Arrive On Green	0.71	0.00	0.00	0.36	0.54	0.54
Sat Flow, veh/h	5611	1585	0	5611	1781	1585
Grp Volume(v), veh/h	1860	0	0	1791	1157	574
Grp Sat Flow(s),veh/h/ln	1870	1585	0	1870	1781	1585
Q Serve(g_s), s	31.1	0.0	0.0	33.2	59.2	28.8
Cycle Q Clear(g_c), s	31.1	0.0	0.0	33.2	59.2	28.8
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2000		0	2000	959	853
V/C Ratio(X)	0.93		0.00	0.90	1.21	0.67
Avail Cap(c_a), veh/h	2000		0	2000	959	853
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	14.6	0.0	0.0	33.5	25.4	18.4
Incr Delay (d2), s/veh	5.4	0.0	0.0	0.7	103.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	0.0	14.2	50.3	10.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	0.0	0.0	34.2	128.4	20.1
LnGrp LOS	C		A	C	F	C
Approach Vol, veh/h	1860	A		1791	1731	
Approach Delay, s/veh	20.1			34.2	92.5	
Approach LOS	C			C	F	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		45.0			45.0	65.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		39.2			39.2	59.2
Max Q Clear Time (g_c+I1), s		33.1			35.2	61.2
Green Ext Time (p_c), s		4.2			2.8	0.0

Intersection Summary

HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.  
 Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/07/2021

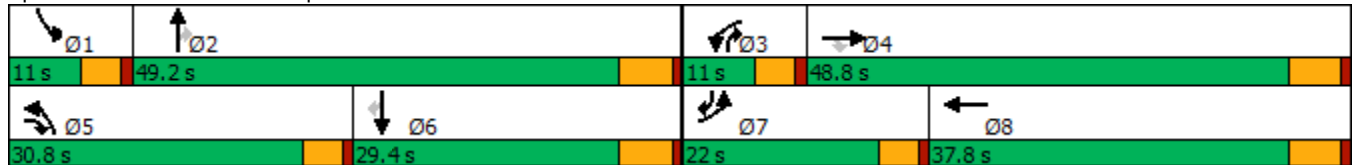


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↗	↖↗	↑↑↔	↖↗	↑↑	↗	↖	↑	↗
Traffic Volume (vph)	657	1055	389	116	889	514	320	140	105	150	395
Future Volume (vph)	657	1055	389	116	889	514	320	140	105	150	395
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6
Total Split (s)	22.0	48.8	30.8	11.0	37.8	30.8	49.2	11.0	11.0	29.4	22.0
Total Split (%)	18.3%	40.7%	25.7%	9.2%	31.5%	25.7%	41.0%	9.2%	9.2%	24.5%	18.3%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 100.2  
 Natural Cycle: 125  
 Control Type: Actuated-Uncoordinated
































Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	  		 	 			 	
Traffic Volume (veh/h)	657	1055	389	116	889	148	514	320	140	105	150	395
Future Volume (veh/h)	657	1055	389	116	889	148	514	320	140	105	150	395
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	670	1077	280	118	907	141	524	327	95	107	153	344
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	581	1324	866	177	1140	177	602	1114	571	110	376	585
Arrive On Green	0.17	0.37	0.37	0.05	0.26	0.26	0.17	0.31	0.31	0.06	0.20	0.20
Sat Flow, veh/h	3456	3554	1582	3456	4460	690	3456	3554	1562	1781	1870	1585
Grp Volume(v), veh/h	670	1077	280	118	691	357	524	327	95	107	153	344
Grp Sat Flow(s),veh/h/ln	1728	1777	1582	1728	1702	1746	1728	1777	1562	1781	1870	1585
Q Serve(g_s), s	17.4	28.2	10.1	3.5	19.6	19.8	15.3	7.2	4.3	6.2	7.4	18.1
Cycle Q Clear(g_c), s	17.4	28.2	10.1	3.5	19.6	19.8	15.3	7.2	4.3	6.2	7.4	18.1
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	1324	866	177	870	446	602	1114	571	110	376	585
V/C Ratio(X)	1.15	0.81	0.32	0.67	0.79	0.80	0.87	0.29	0.17	0.97	0.41	0.59
Avail Cap(c_a), veh/h	581	1477	934	214	1053	540	875	1490	736	110	427	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	29.2	12.9	48.2	36.0	36.0	41.6	26.9	22.2	48.5	36.0	26.3
Incr Delay (d2), s/veh	87.3	3.3	0.2	3.5	3.6	6.9	4.9	0.1	0.1	76.0	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	11.8	3.3	1.5	8.2	8.9	6.6	2.9	1.5	5.0	3.3	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.3	32.5	13.1	51.7	39.5	43.0	46.5	27.0	22.4	124.5	36.7	27.6
LnGrp LOS	F	C	B	D	D	D	D	C	C	F	D	C
Approach Vol, veh/h		2027			1166			946			604	
Approach Delay, s/veh		62.2			41.8			37.3			47.0	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	38.2	9.9	44.4	22.6	26.6	22.0	32.3				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	6.4	43.4	6.4	43.0	26.2	23.6	17.4	32.0				
Max Q Clear Time (g_c+1), s	8.2	9.2	5.5	30.2	17.3	20.1	19.4	21.8				
Green Ext Time (p_c), s	0.0	2.3	0.0	6.4	0.7	0.7	0.0	4.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			50.3									
HCM 6th LOS			D									

Timings  
8: Baxter Rd. & Warm Springs Rd.

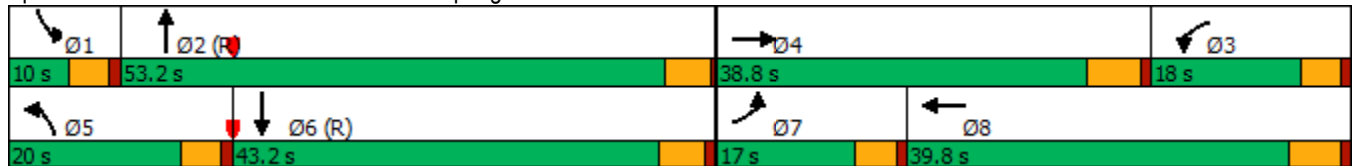


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↗↗	↶	↗↗	↶	↗↗	↶	↗↗
Traffic Volume (vph)	194	550	203	303	195	1199	82	1016
Future Volume (vph)	194	550	203	303	195	1199	82	1016
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	38.8	9.6	38.8	9.6	25.6	9.6	26.1
Total Split (s)	17.0	38.8	18.0	39.8	20.0	53.2	10.0	43.2
Total Split (%)	14.2%	32.3%	15.0%	33.2%	16.7%	44.3%	8.3%	36.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.1	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	4.6	5.1
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	C-Min	None	C-Max

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 17 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 145  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: Baxter Rd. & Warm Springs Rd.



HCM 6th Signalized Intersection Summary  
8: Baxter Rd. & Warm Springs Rd.

Discovery Village (JN:14073)

03/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑		↖	↑↑		↖	↑↑		↗	↑↑	
Traffic Volume (veh/h)	194	550	381	203	303	103	195	1199	189	82	1016	169
Future Volume (veh/h)	194	550	381	203	303	103	195	1199	189	82	1016	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	598	289	221	329	85	212	1303	156	89	1104	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	634	306	199	817	208	229	2206	263	80	1994	184
Arrive On Green	0.10	0.27	0.27	0.11	0.29	0.29	0.13	0.69	0.69	0.05	0.61	0.61
Sat Flow, veh/h	1781	2323	1122	1781	2804	714	1781	3198	381	1781	3289	304
Grp Volume(v), veh/h	211	457	430	221	207	207	212	721	738	89	596	610
Grp Sat Flow(s),veh/h/ln	1781	1777	1668	1781	1777	1741	1781	1777	1802	1781	1777	1816
Q Serve(g_s), s	12.4	30.2	30.3	13.4	11.2	11.5	14.1	25.4	25.8	5.4	23.8	23.9
Cycle Q Clear(g_c), s	12.4	30.2	30.3	13.4	11.2	11.5	14.1	25.4	25.8	5.4	23.8	23.9
Prop In Lane	1.00		0.67	1.00		0.41	1.00		0.21	1.00		0.17
Lane Grp Cap(c), veh/h	184	485	456	199	518	507	229	1226	1243	80	1077	1101
V/C Ratio(X)	1.15	0.94	0.94	1.11	0.40	0.41	0.93	0.59	0.59	1.11	0.55	0.55
Avail Cap(c_a), veh/h	184	489	459	199	518	507	229	1226	1243	80	1077	1101
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	42.7	42.7	53.3	34.1	34.2	51.7	9.7	9.8	57.3	14.0	14.0
Incr Delay (d2), s/veh	111.2	27.2	28.5	57.1	0.1	0.1	39.5	2.1	2.1	133.6	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	16.4	15.6	9.0	4.7	4.7	8.8	9.8	10.0	5.4	9.6	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	165.0	69.9	71.2	110.4	34.2	34.3	91.2	11.8	11.9	190.9	16.0	16.0
LnGrp LOS	F	E	E	F	C	C	F	B	B	F	B	B
Approach Vol, veh/h		1098			635			1671			1295	
Approach Delay, s/veh		88.7			60.7			21.9			28.0	
Approach LOS		F			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	88.8	19.2	38.6	20.0	78.8	17.0	40.8				
Change Period (Y+Rc), s	4.6	* 5.1	5.8	* 5.8	4.6	5.1	4.6	5.8				
Max Green Setting (Gmax), s	5.4	* 49	13.4	* 33	15.4	38.1	12.4	34.0				
Max Q Clear Time (g_c+I1), s	7.4	27.8	15.4	32.3	16.1	25.9	14.4	13.5				
Green Ext Time (p_c), s	0.0	11.0	0.0	0.5	0.0	6.1	0.0	3.3				

Intersection Summary

HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)  
12/07/2021

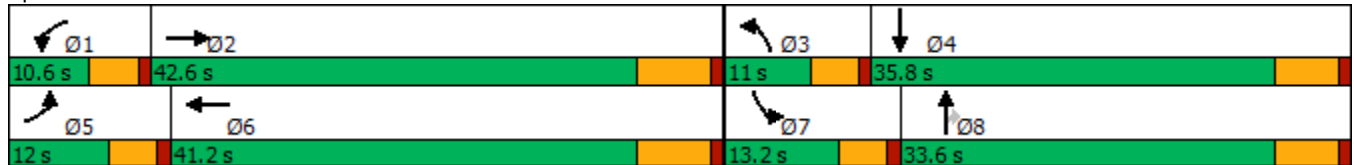


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	304	993	144	969	238	476	240	107	207
Future Volume (vph)	304	993	144	969	238	476	240	107	207
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	12.0	42.6	10.6	41.2	11.0	33.6	33.6	13.2	35.8
Total Split (%)	12.0%	42.6%	10.6%	41.2%	11.0%	33.6%	33.6%	13.2%	35.8%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 99.8  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Meniffee Rd. & Scott Rd.



























HCM 6th Signalized Intersection Summary  
17: Meniffee Rd. & Scott Rd.

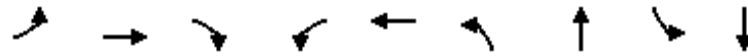
Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	993	335	144	969	149	238	476	240	107	207	133
Future Volume (veh/h)	304	993	335	144	969	149	238	476	240	107	207	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	310	1013	331	147	989	146	243	486	186	109	211	117
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	962	312	108	1093	161	116	522	436	136	328	182
Arrive On Green	0.08	0.37	0.37	0.06	0.35	0.35	0.06	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1781	2629	851	1781	3106	458	1781	1870	1565	1781	1130	627
Grp Volume(v), veh/h	310	682	662	147	565	570	243	486	186	109	0	328
Grp Sat Flow(s),veh/h/ln	1781	1777	1703	1781	1777	1788	1781	1870	1565	1781	0	1757
Q Serve(g_s), s	7.4	36.1	36.1	6.0	29.9	29.9	6.4	25.0	9.6	5.9	0.0	16.1
Cycle Q Clear(g_c), s	7.4	36.1	36.1	6.0	29.9	29.9	6.4	25.0	9.6	5.9	0.0	16.1
Prop In Lane	1.00		0.50	1.00		0.26	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	134	650	623	108	625	629	116	522	436	136	0	510
V/C Ratio(X)	2.32	1.05	1.06	1.36	0.90	0.91	2.10	0.93	0.43	0.80	0.00	0.64
Avail Cap(c_a), veh/h	134	650	623	108	625	629	116	527	441	155	0	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.6	31.3	31.3	46.3	30.4	30.4	46.1	34.7	29.1	44.8	0.0	30.5
Incr Delay (d2), s/veh	617.0	48.7	53.8	209.2	19.0	19.0	524.5	25.2	2.5	22.5	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.0	22.5	22.5	8.8	14.7	14.8	19.6	14.3	3.7	3.3	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	662.6	80.0	85.1	255.5	49.4	49.4	570.6	59.9	31.6	67.3	0.0	35.9
LnGrp LOS	F	F	F	F	D	D	F	E	C	E	A	D
Approach Vol, veh/h		1654			1282			915				437
Approach Delay, s/veh		191.2			73.0			189.8				43.7
Approach LOS		F			E			F				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	42.6	11.0	34.5	12.0	41.2	12.2	33.3				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	6.0	36.1	6.4	30.0	7.4	34.7	8.6	27.8				
Max Q Clear Time (g_c+I1), s	8.0	38.1	8.4	18.1	9.4	31.9	7.9	27.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.0	2.5	0.0	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				140.6								
HCM 6th LOS				F								

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/07/2021

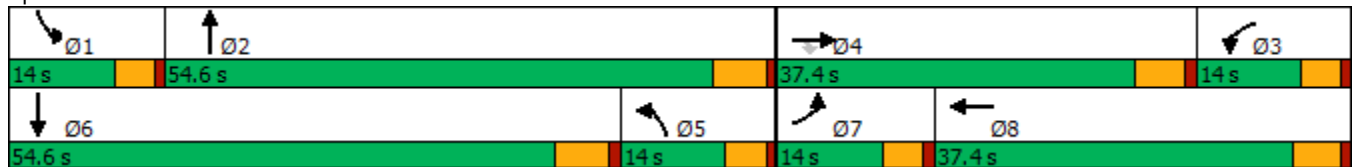


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑	↗	↘	↕	↘	↕	↘	↕
Traffic Volume (vph)	107	111	84	147	332	117	795	88	517
Future Volume (vph)	107	111	84	147	332	117	795	88	517
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 108.4  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Meniffee Rd. & Keller Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	111	84	147	332	101	117	795	171	88	517	71
Future Volume (veh/h)	107	111	84	147	332	101	117	795	171	88	517	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	121	69	160	361	107	127	864	184	96	562	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	215	178	310	583	170	344	1223	260	122	899	117
Arrive On Green	0.08	0.12	0.12	0.17	0.22	0.22	0.19	0.42	0.42	0.07	0.28	0.28
Sat Flow, veh/h	1781	1870	1551	1781	2700	788	1781	2902	618	1781	3164	410
Grp Volume(v), veh/h	116	121	69	160	236	232	127	529	519	96	315	320
Grp Sat Flow(s),veh/h/ln	1781	1870	1551	1781	1777	1711	1781	1777	1743	1781	1777	1797
Q Serve(g_s), s	6.1	5.9	4.0	7.8	11.5	11.8	5.9	23.5	23.6	5.1	14.8	14.9
Cycle Q Clear(g_c), s	6.1	5.9	4.0	7.8	11.5	11.8	5.9	23.5	23.6	5.1	14.8	14.9
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.35	1.00		0.23
Lane Grp Cap(c), veh/h	145	215	178	310	384	370	344	749	735	122	505	511
V/C Ratio(X)	0.80	0.56	0.39	0.52	0.61	0.63	0.37	0.71	0.71	0.79	0.62	0.63
Avail Cap(c_a), veh/h	174	623	517	310	592	570	344	903	886	174	903	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	40.2	39.3	36.0	34.0	34.1	33.6	22.9	22.9	44.0	29.9	29.9
Incr Delay (d2), s/veh	19.5	10.2	6.2	1.5	7.2	7.9	0.7	4.8	4.9	14.0	4.8	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.2	1.8	3.4	5.5	5.5	2.5	9.9	9.8	2.6	6.6	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.9	50.4	45.6	37.5	41.2	42.0	34.3	27.7	27.8	58.0	34.7	34.7
LnGrp LOS	E	D	D	D	D	D	C	C	C	E	C	C
Approach Vol, veh/h		306			628			1175			731	
Approach Delay, s/veh		54.0			40.5			28.4			37.7	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	46.3	22.1	16.4	24.4	33.1	12.4	26.1				
Change Period (Y+Rc), s	4.6	5.8	5.4	* 5.4	5.8	* 5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	* 32	9.4	* 49	9.4	32.0				
Max Q Clear Time (g_c+I1), s	7.1	25.6	9.8	7.9	7.9	16.9	8.1	13.8				
Green Ext Time (p_c), s	0.0	14.9	0.0	2.6	0.0	10.2	0.0	6.6				

Intersection Summary

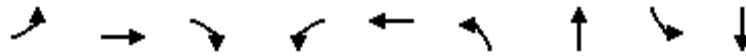
HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
12/07/2021

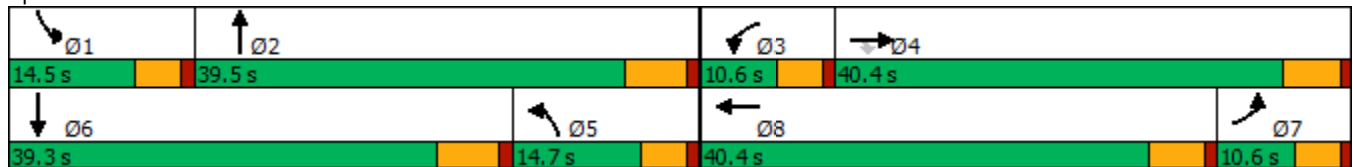


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	528	33	259	66	20	345	1214	13	815
Future Volume (vph)	528	33	259	66	20	345	1214	13	815
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	14.7	39.5	14.5	39.3
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	14.0%	37.6%	13.8%	37.4%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 105  
 Actuated Cycle Length: 78.5  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	528	33	259	66	20	16	345	1214	59	13	815	244
Future Volume (veh/h)	528	33	259	66	20	16	345	1214	59	13	815	244
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	550	34	193	69	21	17	359	1265	57	14	849	253
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	337	280	103	306	217	219	1708	77	36	1012	301
Arrive On Green	0.07	0.18	0.18	0.06	0.16	0.16	0.12	0.49	0.49	0.02	0.38	0.38
Sat Flow, veh/h	1781	1870	1556	1781	1972	1401	1781	3458	156	1781	2689	800
Grp Volume(v), veh/h	550	34	193	69	19	19	359	649	673	14	561	541
Grp Sat Flow(s),veh/h/ln	1781	1870	1556	1781	1777	1596	1781	1777	1837	1781	1777	1712
Q Serve(g_s), s	6.0	1.2	6.5	3.1	0.7	0.9	10.1	23.9	24.0	0.6	23.6	23.7
Cycle Q Clear(g_c), s	6.0	1.2	6.5	3.1	0.7	0.9	10.1	23.9	24.0	0.6	23.6	23.7
Prop In Lane	1.00		1.00	1.00		0.88	1.00		0.08	1.00		0.47
Lane Grp Cap(c), veh/h	130	337	280	103	276	247	219	878	907	36	669	644
V/C Ratio(X)	4.23	0.10	0.69	0.67	0.07	0.08	1.64	0.74	0.74	0.39	0.84	0.84
Avail Cap(c_a), veh/h	130	797	663	130	757	680	219	878	907	215	725	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	28.1	14.7	37.9	29.6	29.7	36.0	16.6	16.6	39.8	23.3	23.4
Incr Delay (d2), s/veh	1470.5	0.2	4.1	8.8	0.1	0.2	307.5	3.7	3.6	6.9	8.8	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	55.6	0.5	3.5	1.6	0.3	0.3	22.8	9.1	9.4	0.3	10.4	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1508.5	28.3	18.9	46.7	29.8	29.9	343.5	20.3	20.2	46.7	32.1	32.5
LnGrp LOS	F	C	B	D	C	C	F	C	C	D	C	C
Approach Vol, veh/h		777			107			1681			1116	
Approach Delay, s/veh		1073.7			40.7			89.3			32.5	
Approach LOS		F			D			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	46.4	9.4	20.2	15.9	36.7	11.4	18.1				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	5.8	* 5.8	5.4	* 5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	10.1	* 34	6.0	* 35				
Max Q Clear Time (g_c+I1), s	2.6	26.0	5.1	8.5	12.1	25.7	8.0	2.9				
Green Ext Time (p_c), s	0.0	5.8	0.0	1.2	0.0	5.2	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	278.5
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	15	1603	15	15	1125
Future Vol, veh/h	15	15	1603	15	15	1125
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	1687	16	16	1184

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2320	853	0	0	1704
Stage 1	1696	-	-	-	-
Stage 2	624	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	32	302	-	-	369
Stage 1	134	-	-	-	-
Stage 2	496	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	28	302	-	-	369
Mov Cap-2 Maneuver	122	-	-	-	-
Stage 1	134	-	-	-	-
Stage 2	433	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.2	0	1.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	174	369
HCM Lane V/C Ratio	-	-	0.181	0.043
HCM Control Delay (s)	-	-	30.2	15.2
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q(veh)	-	-	0.6	0.1

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

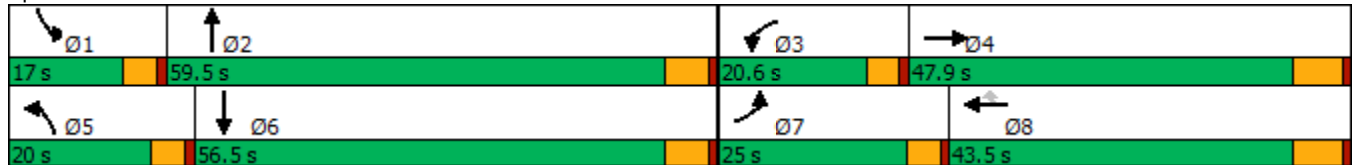


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↖↗	↕↔	↖↗	↕↔	↖	↗	↕↔	↖	↕↔
Traffic Volume (vph)	684	1206	471	899	189	327	1202	312	793
Future Volume (vph)	684	1206	471	899	189	327	1202	312	793
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	25.0	47.9	20.6	43.5	43.5	20.0	59.5	17.0	56.5
Total Split (%)	17.2%	33.0%	14.2%	30.0%	30.0%	13.8%	41.0%	11.7%	39.0%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕↔		↔↔	↕↕↕	↔	↔	↕↔		↔	↕↔	
Traffic Volume (veh/h)	684	1206	418	471	899	189	327	1202	473	312	793	429
Future Volume (veh/h)	684	1206	418	471	899	189	327	1202	473	312	793	429
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	777	1370	440	535	1022	197	372	1366	358	355	901	483
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1094	349	381	1303	403	189	1038	265	152	784	413
Arrive On Green	0.14	0.29	0.29	0.11	0.26	0.26	0.11	0.37	0.37	0.09	0.35	0.35
Sat Flow, veh/h	3456	3830	1223	3456	5106	1578	1781	2803	715	1781	2243	1182
Grp Volume(v), veh/h	777	1217	593	535	1022	197	372	853	871	355	711	673
Grp Sat Flow(s),veh/h/ln	1728	1702	1649	1728	1702	1578	1781	1777	1742	1781	1777	1648
Q Serve(g_s), s	20.4	41.4	41.4	16.0	27.0	15.4	15.4	53.7	53.7	12.4	50.7	50.7
Cycle Q Clear(g_c), s	20.4	41.4	41.4	16.0	27.0	15.4	15.4	53.7	53.7	12.4	50.7	50.7
Prop In Lane	1.00		0.74	1.00		1.00	1.00		0.41	1.00		0.72
Lane Grp Cap(c), veh/h	486	972	471	381	1303	403	189	658	645	152	621	576
V/C Ratio(X)	1.60	1.25	1.26	1.40	0.78	0.49	1.97	1.30	1.35	2.33	1.14	1.17
Avail Cap(c_a), veh/h	486	972	471	381	1303	403	189	658	645	152	621	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	51.8	51.8	64.5	50.3	46.0	64.8	45.7	45.7	66.3	47.2	47.2
Incr Delay (d2), s/veh	278.7	121.9	133.4	196.5	3.7	2.0	453.4	144.1	168.1	618.7	82.7	93.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.6	33.6	34.1	17.3	11.7	6.2	30.7	49.1	52.4	31.7	35.9	35.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	341.0	173.7	185.2	261.0	54.0	47.9	518.2	189.8	213.7	685.0	129.9	140.6
LnGrp LOS	F	F	F	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		2587			1754			2096			1739	
Approach Delay, s/veh		226.6			116.5			258.0			247.4	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	59.5	20.6	47.9	20.0	56.5	25.0	43.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	12.4	53.7	16.0	41.4	15.4	50.7	20.4	37.0				
Max Q Clear Time (g_c+I1), s	14.4	55.7	18.0	43.4	17.4	52.7	22.4	29.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9				

Intersection Summary

HCM 6th Ctrl Delay	215.4
HCM 6th LOS	F

















Notes

User approved changes to right turn type.



Timings  
 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

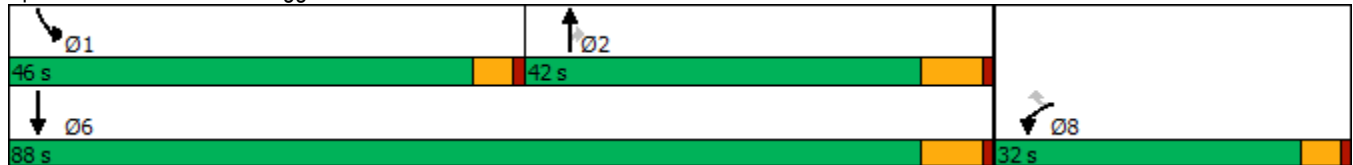
Discovery Village (JN:14073)  
 12/07/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 		 	 
Traffic Volume (vph)	236	599	588	224	819	847
Future Volume (vph)	236	599	588	224	819	847
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	28.5	28.5	9.6	24.5
Total Split (s)	32.0	32.0	42.0	42.0	46.0	88.0
Total Split (%)	26.7%	26.7%	35.0%	35.0%	38.3%	73.3%
Yellow Time (s)	3.6	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	6.5	6.5	4.6	6.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 80  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.



HCM 6th Signalized Intersection Summary  
 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶↶	↶	↕↕	↷	↶↶	↕↕
Traffic Volume (veh/h)	236	599	588	224	819	847
Future Volume (veh/h)	236	599	588	224	819	847
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	631	619	236	862	892
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	447	795	877	391	990	2119
Arrive On Green	0.25	0.25	0.25	0.25	0.29	0.60
Sat Flow, veh/h	1781	3170	3647	1585	3456	3647
Grp Volume(v), veh/h	248	631	619	236	862	892
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1728	1777
Q Serve(g_s), s	8.8	13.5	11.5	9.6	17.2	9.8
Cycle Q Clear(g_c), s	8.8	13.5	11.5	9.6	17.2	9.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	447	795	877	391	990	2119
V/C Ratio(X)	0.56	0.79	0.71	0.60	0.87	0.42
Avail Cap(c_a), veh/h	672	1196	1737	775	1970	3988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	25.4	25.0	24.2	24.6	7.9
Incr Delay (d2), s/veh	1.1	2.2	1.1	1.5	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.6	4.3	3.3	6.1	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	27.7	26.0	25.7	25.6	8.0
LnGrp LOS	C	C	C	C	C	A
Approach Vol, veh/h	879		855			1754
Approach Delay, s/veh	26.8		25.9			16.7
Approach LOS	C		C			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	25.4	24.4			49.8	22.8
Change Period (Y+Rc), s	4.6	6.5			6.5	4.6
Max Green Setting (Gmax), s	41.4	35.5			81.5	27.4
Max Q Clear Time (g_c+11), s	19.2	13.5			11.8	15.5
Green Ext Time (p_c), s	1.6	4.4			6.4	2.7

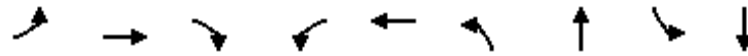
Intersection Summary

HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
24: Max Gilliss Blvd & Leon Rd.

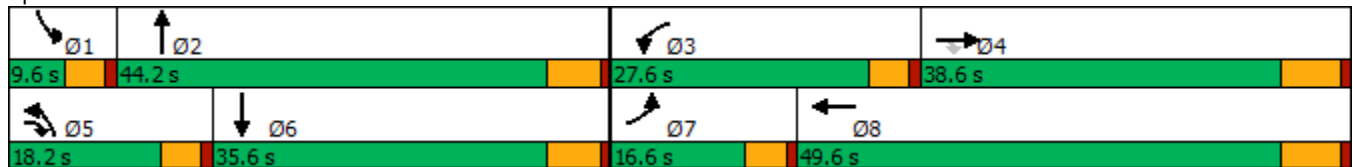


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↔↔	↑↑	↔↔	↑↑
Traffic Volume (vph)	212	1004	607	712	675	393	551	27	639
Future Volume (vph)	212	1004	607	712	675	393	551	27	639
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	16.6	38.6	18.2	27.6	49.6	18.2	44.2	9.6	35.6
Total Split (%)	13.8%	32.2%	15.2%	23.0%	41.3%	15.2%	36.8%	8.0%	29.7%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 119  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated































Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	212	1004	607	712	675	27	393	551	730	27	639	174
Future Volume (veh/h)	212	1004	607	712	675	27	393	551	730	27	639	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	1024	364	727	689	14	401	562	337	28	652	112
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	1023	617	698	1434	29	413	706	423	91	721	124
Arrive On Green	0.12	0.41	0.41	0.29	0.59	0.59	0.17	0.48	0.48	0.04	0.35	0.35
Sat Flow, veh/h	3563	3741	1585	3563	3653	74	3563	2191	1313	3563	3111	534
Grp Volume(v), veh/h	216	1024	364	727	353	350	401	480	419	28	392	372
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1857	1781	1870	1634	1781	1870	1774
Q Serve(g_s), s	6.9	32.1	20.4	23.0	12.7	12.7	13.1	25.3	25.3	0.9	23.4	23.5
Cycle Q Clear(g_c), s	6.9	32.1	20.4	23.0	12.7	12.7	13.1	25.3	25.3	0.9	23.4	23.5
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.80	1.00		0.30
Lane Grp Cap(c), veh/h	274	1023	617	698	734	729	413	602	526	91	433	411
V/C Ratio(X)	0.79	1.00	0.59	1.04	0.48	0.48	0.97	0.80	0.80	0.31	0.90	0.91
Avail Cap(c_a), veh/h	364	1023	617	698	734	729	413	612	534	152	475	450
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	34.6	22.8	41.4	17.3	17.3	48.3	27.1	27.1	55.4	37.1	37.1
Incr Delay (d2), s/veh	5.8	28.4	1.5	45.3	0.5	0.5	36.6	7.2	8.2	0.7	19.5	20.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	15.5	6.1	13.0	4.5	4.5	7.4	10.2	9.0	0.4	11.4	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	63.0	24.3	86.8	17.8	17.8	84.9	34.3	35.3	56.1	56.6	57.8
LnGrp LOS	E	F	C	F	B	B	F	C	D	E	E	E
Approach Vol, veh/h		1604			1430			1300			792	
Approach Delay, s/veh		53.4			52.9			50.2			57.1	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	43.6	27.6	38.6	18.2	33.0	13.6	52.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	38.4	23.0	32.1	13.6	29.8	12.0	43.1				
Max Q Clear Time (g_c+I1), s	2.9	27.3	25.0	34.1	15.1	25.5	8.9	14.7				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0	0.0	1.7	0.1	3.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			53.0									
HCM 6th LOS			D									

**APPENDIX 6.2:**

**HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS  
ANALYSIS WORKSHEETS**

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Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

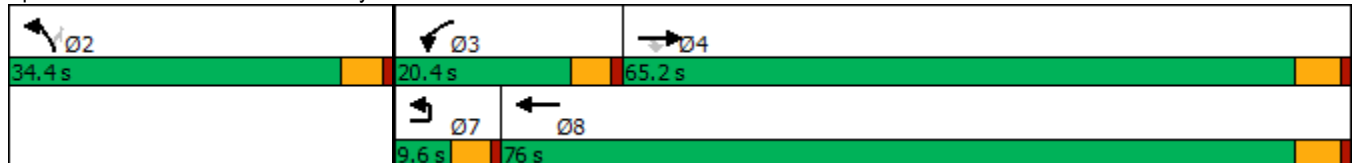


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	1501	626	165	1891	334	94	
Future Volume (vph)	1501	626	165	1891	334	94	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	65.2	65.2	20.4	76.0	34.4	34.4	9.6
Total Split (%)	54.3%	54.3%	17.0%	63.3%	28.7%	28.7%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 114.1  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↻	↰	↰	↻	↰	↰
Traffic Volume (veh/h)	0	1501	626	165	1891	334	94
Future Volume (veh/h)	0	1501	626	165	1891	334	94
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		1564	518	172	1970	348	89
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1877	837	203	1285	389	346
Arrive On Green		0.53	0.53	0.11	0.69	0.22	0.22
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		1564	518	172	1970	348	89
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		38.3	23.6	9.8	70.9	19.6	4.8
Cycle Q Clear(g_c), s		38.3	23.6	9.8	70.9	19.6	4.8
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1877	837	203	1285	389	346
V/C Ratio(X)		0.83	0.62	0.85	1.53	0.90	0.26
Avail Cap(c_a), veh/h		2069	923	273	1285	513	456
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		20.5	17.1	44.8	16.2	39.2	33.4
Incr Delay (d2), s/veh		2.8	1.1	13.2	244.0	14.9	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		15.3	8.3	5.0	111.2	10.1	1.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		23.4	18.1	58.0	260.2	54.1	33.8
LnGrp LOS		C	B	E	F	D	C
Approach Vol, veh/h		2082			2142	437	
Approach Delay, s/veh		22.1			244.0	50.0	
Approach LOS		C			F	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		27.2	16.4	59.6			76.0
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 30	15.8	60.1			70.9
Max Q Clear Time (g_c+I1), s		21.6	11.8	40.3			72.9
Green Ext Time (p_c), s		0.9	0.1	13.6			0.0

Intersection Summary

HCM 6th Ctrl Delay	126.7
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1179	157	468	1437	106	154	111	598	190	76	63
Future Volume (vph)	34	1179	157	468	1437	106	154	111	598	190	76	63
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	34.8	34.8	42.8	42.8	42.8	11.8	11.8	11.8
Total Split (s)	10.6	34.2	34.2	23.0	46.6	46.6	42.8	42.8	42.8	42.8	42.8	42.8
Total Split (%)	10.6%	34.2%	34.2%	23.0%	46.6%	46.6%	42.8%	42.8%	42.8%	42.8%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 90.5  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated




























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

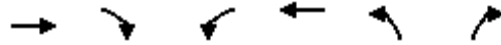
Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	34	1179	157	468	1437	106	154	111	598	190	76	63
Future Volume (veh/h)	34	1179	157	468	1437	106	154	111	598	190	76	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1228	138	488	1497	85	160	116	482	198	79	61
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	1049	455	341	1595	693	470	645	535	322	645	540
Arrive On Green	0.04	0.30	0.30	0.19	0.45	0.45	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	3554	1540	1781	3554	1544	1249	1870	1552	818	1870	1564
Grp Volume(v), veh/h	35	1228	138	488	1497	85	160	116	482	198	79	61
Grp Sat Flow(s),veh/h/ln	1781	1777	1540	1781	1777	1544	1249	1870	1552	818	1870	1564
Q Serve(g_s), s	1.9	28.4	6.7	18.4	38.6	3.1	9.7	4.2	28.4	21.5	2.8	2.6
Cycle Q Clear(g_c), s	1.9	28.4	6.7	18.4	38.6	3.1	12.4	4.2	28.4	25.6	2.8	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	1049	455	341	1595	693	470	645	535	322	645	540
V/C Ratio(X)	0.52	1.17	0.30	1.43	0.94	0.12	0.34	0.18	0.90	0.62	0.12	0.11
Avail Cap(c_a), veh/h	111	1049	455	341	1595	693	519	720	597	354	720	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	33.9	26.2	38.9	25.3	15.5	25.8	22.0	29.9	30.9	21.5	21.5
Incr Delay (d2), s/veh	6.0	87.0	0.5	210.6	11.2	0.1	0.5	0.2	16.1	3.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	24.0	2.4	27.5	17.0	1.0	2.9	1.8	12.6	4.4	1.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	120.9	26.7	249.4	36.5	15.6	26.3	22.2	46.0	34.1	21.6	21.6
LnGrp LOS	D	F	C	F	D	B	C	C	D	C	C	C
Approach Vol, veh/h		1401			2070			758			338	
Approach Delay, s/veh		109.9			85.8			38.2			28.9	
Approach LOS		F			F			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	34.2		39.0	8.2	49.0		39.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	18.4	28.4		37.0	6.0	40.8		37.0				
Max Q Clear Time (g_c+I1), s	20.4	30.4		27.6	3.9	40.6		30.4				
Green Ext Time (p_c), s	0.0	0.0		1.5	0.0	0.2		2.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				81.1								
HCM 6th LOS				F								

Timings

3: California Oaks St. & Clinton Keith Rd.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1925	238	766	1591	235	631
Future Volume (vph)	1925	238	766	1591	235	631
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	33.8	33.8	10.6	15.8	33.8	33.8
Total Split (s)	49.2	49.2	47.0	96.2	33.8	33.8
Total Split (%)	37.8%	37.8%	36.2%	74.0%	26.0%	26.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

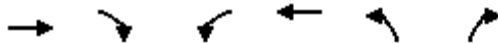
Cycle Length: 130  
 Actuated Cycle Length: 123.5  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↓
Traffic Volume (veh/h)	1925	238	766	1591	235	631
Future Volume (veh/h)	1925	238	766	1591	235	631
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1964	243	782	1623	240	644
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1186	528	581	2471	384	683
Arrive On Green	0.33	0.33	0.33	0.70	0.22	0.22
Sat Flow, veh/h	3647	1580	1781	3647	1781	3170
Grp Volume(v), veh/h	1964	243	782	1623	240	644
Grp Sat Flow(s),veh/h/ln	1777	1580	1781	1777	1781	1585
Q Serve(g_s), s	43.4	15.7	42.4	33.3	15.9	26.0
Cycle Q Clear(g_c), s	43.4	15.7	42.4	33.3	15.9	26.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1186	528	581	2471	384	683
V/C Ratio(X)	1.66	0.46	1.35	0.66	0.63	0.94
Avail Cap(c_a), veh/h	1186	528	581	2471	384	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	34.1	43.8	11.1	46.2	50.2
Incr Delay (d2), s/veh	298.7	0.8	166.9	0.7	3.9	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	67.5	6.0	44.8	11.4	7.3	12.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	342.0	34.9	210.7	11.8	50.1	72.1
LnGrp LOS	F	C	F	B	D	E
Approach Vol, veh/h	2207			2405	884	
Approach Delay, s/veh	308.2			76.5	66.1	
Approach LOS	F			E	E	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	47.0	49.2			96.2	33.8
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	42.4	43.4			90.4	28.0
Max Q Clear Time (g_c+11), s	44.4	45.4			35.3	28.0
Green Ext Time (p_c), s	0.0	0.0			25.7	0.0

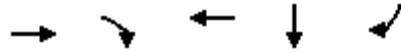
Intersection Summary

HCM 6th Ctrl Delay	167.9
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

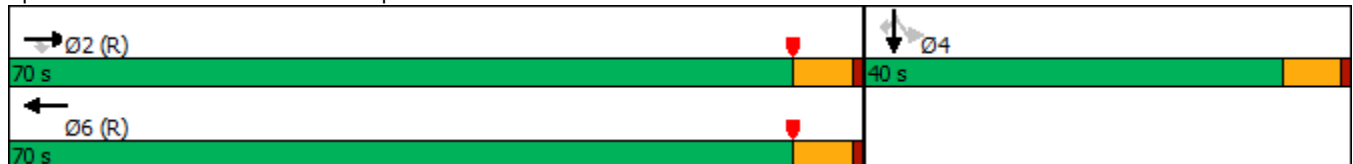


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	2334	856	1328	5	561
Future Volume (vph)	2334	856	1328	5	561
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	2334	856	0	1328	940	0	0	0	482	5	561
Future Volume (veh/h)	0	2334	856	0	1328	940	0	0	0	482	5	561
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2483	911	0	1413	1000				513	5	597
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3003	919	0	2002	913				541	5	855
Arrive On Green	0.00	0.59	0.59	0.00	1.00	1.00				0.31	0.31	0.31
Sat Flow, veh/h	0	5274	1563	0	3572	1552				1765	17	2790
Grp Volume(v), veh/h	0	2483	911	0	1413	1000				518	0	597
Grp Sat Flow(s),veh/h/ln	0	1702	1563	0	1702	1552				1782	0	1395
Q Serve(g_s), s	0.0	42.9	63.3	0.0	0.0	62.1				31.3	0.0	20.8
Cycle Q Clear(g_c), s	0.0	42.9	63.3	0.0	0.0	62.1				31.3	0.0	20.8
Prop In Lane	0.00		1.00	0.00		1.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	3003	919	0	2002	913				546	0	855
V/C Ratio(X)	0.00	0.83	0.99	0.00	0.71	1.10				0.95	0.00	0.70
Avail Cap(c_a), veh/h	0	3003	919	0	2002	913				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.40	0.40				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.2	22.4	0.0	0.0	0.0				37.3	0.0	33.7
Incr Delay (d2), s/veh	0.0	2.8	27.6	0.0	0.9	50.6				25.4	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.3	26.8	0.0	0.2	12.8				17.1	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.9	50.0	0.0	0.9	50.6				62.7	0.0	35.7
LnGrp LOS	A	C	D	A	A	F				E	A	D
Approach Vol, veh/h		3394			2413						1115	
Approach Delay, s/veh		28.7			21.5						48.2	
Approach LOS		C			C						D	
Timer - Assigned Phs		2			4						6	
Phs Duration (G+Y+Rc), s		70.5			39.5						70.5	
Change Period (Y+Rc), s		5.8			5.8						5.8	
Max Green Setting (Gmax), s		64.2			34.2						64.2	
Max Q Clear Time (g_c+I1), s		65.3			33.3						64.1	
Green Ext Time (p_c), s		0.0			0.5						0.1	
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			29.4									
HCM 6th LOS			C									

Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

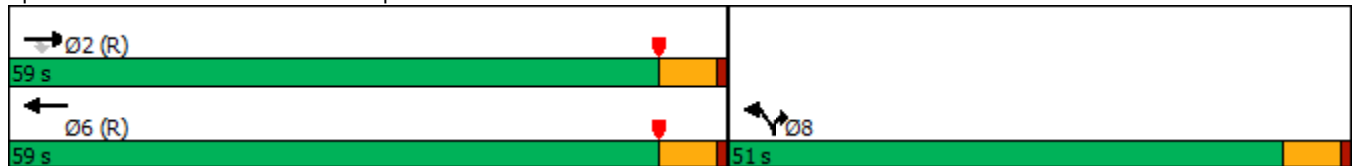


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↘	↘
Traffic Volume (vph)	1751	1018	1792	461	1106
Future Volume (vph)	1751	1018	1792	461	1106
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	43.8	43.8	22.0	22.0	22.0
Total Split (s)	59.0	59.0	59.0	51.0	51.0
Total Split (%)	53.6%	53.6%	53.6%	46.4%	46.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 12 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
12/06/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1751	1018	0	1792	461	1106
Future Volume (veh/h)	1751	1018	0	1792	461	1106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1903	0	0	1948	828	852
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2714		0	2714	732	651
Arrive On Green	0.97	0.00	0.00	0.48	0.41	0.41
Sat Flow, veh/h	5611	1585	0	5611	1781	1585
Grp Volume(v), veh/h	1903	0	0	1948	828	852
Grp Sat Flow(s),veh/h/ln	1870	1585	0	1870	1781	1585
Q Serve(g_s), s	3.8	0.0	0.0	30.2	45.2	45.2
Cycle Q Clear(g_c), s	3.8	0.0	0.0	30.2	45.2	45.2
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2714		0	2714	732	651
V/C Ratio(X)	0.70		0.00	0.72	1.13	1.31
Avail Cap(c_a), veh/h	2714		0	2714	732	651
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	1.0	0.0	0.0	22.5	32.4	32.4
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.2	75.6	149.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	12.2	33.9	43.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	0.0	0.0	22.6	108.0	181.9
LnGrp LOS	A		A	C	F	F
Approach Vol, veh/h	1903	A		1948	1680	
Approach Delay, s/veh	1.7			22.6	145.5	
Approach LOS	A			C	F	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		59.0			59.0	51.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		53.2			53.2	45.2
Max Q Clear Time (g_c+I1), s		5.8			32.2	47.2
Green Ext Time (p_c), s		12.7			10.1	0.0

Intersection Summary

HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.  
Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.



Timings  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	275	919	410	169	959	317	181	102	217	401	531	
Future Volume (vph)	275	919	410	169	959	317	181	102	217	401	531	
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	
Protected Phases	7	4	5	3	8	5	2	3	1	6	7	
Permitted Phases			4					2			6	
Detector Phase	7	4	5	3	8	5	2	3	1	6	7	
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6	
Total Split (s)	14.0	40.0	20.2	11.8	37.8	20.2	50.2	11.8	18.0	48.0	14.0	
Total Split (%)	11.7%	33.3%	16.8%	9.8%	31.5%	16.8%	41.8%	9.8%	15.0%	40.0%	11.7%	
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 107  
 Natural Cycle: 125  
 Control Type: Actuated-Uncoordinated


































Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		  	  		 	 		 	 	
Traffic Volume (veh/h)	275	919	410	169	959	85	317	181	102	217	401	531
Future Volume (veh/h)	275	919	410	169	959	85	317	181	102	217	401	531
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	1010	304	186	1054	88	348	199	74	238	441	488
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	1094	677	229	1381	115	411	1106	598	220	590	637
Arrive On Green	0.09	0.31	0.31	0.07	0.29	0.29	0.12	0.31	0.31	0.12	0.32	0.32
Sat Flow, veh/h	3456	3554	1585	3456	4802	400	3456	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	302	1010	304	186	747	395	348	199	74	238	441	488
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1702	1798	1728	1777	1585	1781	1870	1585
Q Serve(g_s), s	9.4	29.9	14.8	5.8	21.8	21.8	10.7	4.4	3.3	13.4	23.0	28.9
Cycle Q Clear(g_c), s	9.4	29.9	14.8	5.8	21.8	21.8	10.7	4.4	3.3	13.4	23.0	28.9
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	1094	677	229	979	517	411	1106	598	220	590	637
V/C Ratio(X)	1.01	0.92	0.45	0.81	0.76	0.76	0.85	0.18	0.12	1.08	0.75	0.77
Avail Cap(c_a), veh/h	299	1118	687	229	1002	529	496	1452	753	220	726	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	36.4	22.1	50.1	35.3	35.3	46.9	27.3	22.1	47.6	33.3	28.1
Incr Delay (d2), s/veh	54.7	12.4	0.5	18.3	3.4	6.4	9.5	0.1	0.1	84.8	3.4	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	14.1	5.3	3.0	9.1	10.0	5.0	1.8	1.2	10.9	10.4	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.4	48.7	22.6	68.4	38.8	41.8	56.4	27.4	22.2	132.4	36.7	32.1
LnGrp LOS	F	D	C	E	D	D	E	C	C	F	D	C
Approach Vol, veh/h		1616			1328			621			1167	
Approach Delay, s/veh		54.2			43.8			43.0			54.3	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	39.6	11.8	39.3	17.5	40.1	14.0	37.1				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	13.4	44.4	7.2	34.2	15.6	42.2	9.4	32.0				
Max Q Clear Time (g_c+I1), s	15.4	6.4	7.8	31.9	12.7	30.9	11.4	23.8				
Green Ext Time (p_c), s	0.0	1.4	0.0	1.6	0.2	3.4	0.0	4.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.8									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	9	223	16	47	389
Future Vol, veh/h	3	9	223	16	47	389
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	10	242	17	51	423

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	776	251	0	0	259
Stage 1	251	-	-	-	-
Stage 2	525	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	366	788	-	-	1306
Stage 1	791	-	-	-	-
Stage 2	593	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	347	788	-	-	1306
Mov Cap-2 Maneuver	449	-	-	-	-
Stage 1	791	-	-	-	-
Stage 2	563	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	663	1306
HCM Lane V/C Ratio	-	-	0.02	0.039
HCM Control Delay (s)	-	-	10.5	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Timings  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)

03/28/2022

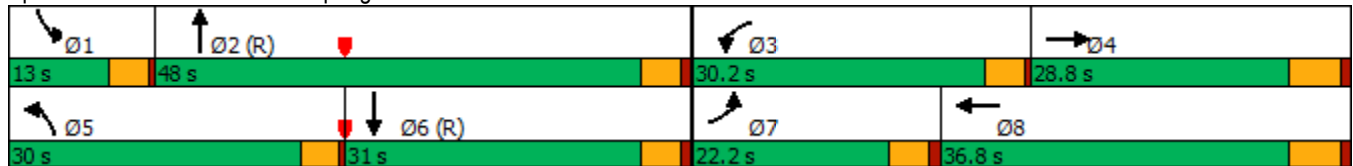


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕↗	↙	↕↗	↙	↕↗	↙	↕↗
Traffic Volume (vph)	113	199	248	665	367	405	53	700
Future Volume (vph)	113	199	248	665	367	405	53	700
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	28.8	9.0	28.8	9.0	25.6	9.0	25.6
Total Split (s)	22.2	28.8	30.2	36.8	30.0	48.0	13.0	31.0
Total Split (%)	18.5%	24.0%	25.2%	30.7%	25.0%	40.0%	10.8%	25.8%
Yellow Time (s)	3.6	4.8	3.5	4.8	3.5	3.6	3.5	3.6
All-Red Time (s)	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.0	5.8	4.0	4.6	4.0	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 19 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated





















Splits and Phases: 8: Warm Springs Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)

03/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	199	276	248	665	127	367	405	190	53	700	261
Future Volume (veh/h)	113	199	276	248	665	127	367	405	190	53	700	261
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	205	177	256	686	74	378	418	139	55	722	171
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	308	252	284	778	84	386	1265	416	71	868	205
Arrive On Green	0.08	0.17	0.17	0.16	0.24	0.24	0.22	0.48	0.48	0.04	0.30	0.30
Sat Flow, veh/h	1781	1855	1519	1781	3230	348	1781	2627	865	1781	2850	675
Grp Volume(v), veh/h	116	196	186	256	377	383	378	281	276	55	450	443
Grp Sat Flow(s),veh/h/ln	1781	1777	1597	1781	1777	1801	1781	1777	1715	1781	1777	1748
Q Serve(g_s), s	7.7	12.4	13.2	16.9	24.5	24.6	25.3	11.7	11.9	3.7	28.3	28.3
Cycle Q Clear(g_c), s	7.7	12.4	13.2	16.9	24.5	24.6	25.3	11.7	11.9	3.7	28.3	28.3
Prop In Lane	1.00		0.95	1.00		0.19	1.00		0.50	1.00		0.39
Lane Grp Cap(c), veh/h	142	295	265	284	428	434	386	855	825	71	541	532
V/C Ratio(X)	0.82	0.66	0.70	0.90	0.88	0.88	0.98	0.33	0.33	0.78	0.83	0.83
Avail Cap(c_a), veh/h	261	341	306	389	459	465	386	855	825	134	541	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	46.9	47.2	49.5	43.9	43.9	46.7	19.2	19.2	57.1	38.9	38.9
Incr Delay (d2), s/veh	4.3	5.2	7.3	15.8	17.9	17.9	40.1	1.0	1.1	6.6	13.9	14.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	5.8	5.6	8.6	12.5	12.7	15.5	5.1	5.1	1.8	14.2	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	52.1	54.6	65.3	61.8	61.8	86.8	20.2	20.3	63.7	52.8	53.0
LnGrp LOS	E	D	D	E	E	E	F	C	C	E	D	D
Approach Vol, veh/h		498			1016			935			948	
Approach Delay, s/veh		54.5			62.7			47.2			53.5	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	62.4	23.1	25.7	30.0	41.1	14.2	34.7				
Change Period (Y+Rc), s	4.0	4.6	4.0	5.8	4.0	4.6	4.6	5.8				
Max Green Setting (Gmax), s	9.0	43.4	26.2	23.0	26.0	26.4	17.6	31.0				
Max Q Clear Time (g_c+1), s	5.7	13.9	18.9	15.2	27.3	30.3	9.7	26.6				
Green Ext Time (p_c), s	0.0	3.9	0.2	1.8	0.0	0.0	0.1	2.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			54.7									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	9	0	962	1208	16
Future Vol, veh/h	0	9	0	962	1208	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	1046	1313	17

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	665	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	*563	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %		1		-	-
Mov Cap-1 Maneuver	-	*563	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 563	-	-
HCM Lane V/C Ratio	- 0.017	-	-
HCM Control Delay (s)	- 11.5	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑↑	
Traffic Vol, veh/h	15	15	188	948	1201	16
Future Vol, veh/h	15	15	188	948	1201	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	204	1030	1305	17

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2237	661	1322	0	-	0
Stage 1	1314	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*56	*563	*842	-	-	-
Stage 1	*531	-	-	-	-	-
Stage 2	*347	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*42	*563	*842	-	-	-
Mov Cap-2 Maneuver	*249	-	-	-	-	-
Stage 1	*403	-	-	-	-	-
Stage 2	*347	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.5	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 842	-	345	-	-
HCM Lane V/C Ratio	0.243	-	0.095	-	-
HCM Control Delay (s)	10.6	-	16.5	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.9	-	0.3	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	9	0	1136	1184	31
Future Vol, veh/h	0	9	0	1136	1184	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	0	1235	1287	34

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	661	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	*563	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %		1		-	-
Mov Cap-1 Maneuver	-	*563	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 563	-	-
HCM Lane V/C Ratio	- 0.017	-	-
HCM Control Delay (s)	- 11.5	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↵		↵	↵		↵	↕		↵	↕	
Traffic Vol, veh/h	0	0	0	0	0	213	0	923	0	32	1161	0
Future Vol, veh/h	0	0	0	0	0	213	0	923	0	32	1161	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	232	0	1003	0	35	1262	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1834	2335	631	1704	2335	502	1262	0	0	1003	0	0
Stage 1	1332	1332	-	1003	1003	-	-	-	-	-	-	-
Stage 2	502	1003	-	701	1332	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*136	*44	*590	*203	*44	515	*882	-	-	686	-	-
Stage 1	*556	*487	-	*259	*318	-	-	-	-	-	-	-
Stage 2	*520	*318	-	*556	*487	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	*72	*42	*590	*195	*42	515	*882	-	-	686	-	-
Mov Cap-2 Maneuver	*72	*42	-	*195	*42	-	-	-	-	-	-	-
Stage 1	*556	*463	-	*259	*318	-	-	-	-	-	-	-
Stage 2	*286	*318	-	*528	*463	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	17.6	0	0.3
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	
Capacity (veh/h)	* 882	-	-	-	-	-	-	515	686	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.45	0.051	-	-
HCM Control Delay (s)	0	-	-	0	0	0	0	17.6	10.5	-	-
HCM Lane LOS	A	-	-	A	A	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	2.3	0.2	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	436	6	0	1040	0	18
Future Vol, veh/h	436	6	0	1040	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	7	0	1130	0	20

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	241
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	760
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	760
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	760	-	-	-
HCM Lane V/C Ratio	0.026	-	-	-
HCM Control Delay (s)	9.9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	445	9	0	1040	0	27
Future Vol, veh/h	445	9	0	1040	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	484	10	0	1130	0	29

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	247
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	753
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	753
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	753	-	-	-
HCM Lane V/C Ratio	0.039	-	-	-
HCM Control Delay (s)	10	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

15: Running Rabbit Rd. & Street G

03/28/2022

Intersection							
Int Delay, s/veh	2.7						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	4		1		
Traffic Vol, veh/h	0	32	213	32	92	0	
Future Vol, veh/h	0	32	213	32	92	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	35	232	35	100	0	

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	267	0	0	285
Stage 1	-	-	-	250
Stage 2	-	-	-	35
Critical Hdwy	4.12	-	-	6.42
Critical Hdwy Stg 1	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	3.518
Pot Cap-1 Maneuver	1297	-	-	705
Stage 1	-	-	-	792
Stage 2	-	-	-	987
Platoon blocked, %	-	-	-	0
Mov Cap-1 Maneuver	1297	-	-	705
Mov Cap-2 Maneuver	-	-	-	705
Stage 1	-	-	-	792
Stage 2	-	-	-	987

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	1297	-	-	-	-	705
HCM Lane V/C Ratio	-	-	-	-	-	0.142
HCM Control Delay (s)	0	-	-	-	-	10.9
HCM Lane LOS	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0.5

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	123	236	3	0	9
Future Vol, veh/h	0	123	236	3	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	134	257	3	0	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	260	0	-	0	393
Stage 1	-	-	-	-	259
Stage 2	-	-	-	-	134
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1304	-	-	-	611
Stage 1	-	-	-	-	784
Stage 2	-	-	-	-	892
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1304	-	-	-	611
Mov Cap-2 Maneuver	-	-	-	-	611
Stage 1	-	-	-	-	784
Stage 2	-	-	-	-	892

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1304	-	-	-	780
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings  
17: Menifee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

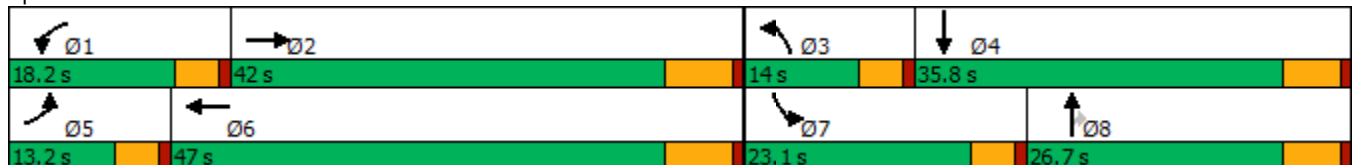


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	89	792	294	1049	278	273	298	175	518
Future Volume (vph)	89	792	294	1049	278	273	298	175	518
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	13.2	42.0	18.2	47.0	14.0	26.7	26.7	23.1	35.8
Total Split (%)	12.0%	38.2%	16.5%	42.7%	12.7%	24.3%	24.3%	21.0%	32.5%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated























Splits and Phases: 17: Menifee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

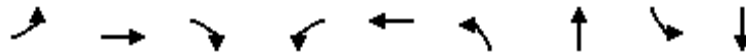
Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	792	197	294	1049	151	278	273	298	175	518	157
Future Volume (veh/h)	89	792	197	294	1049	151	278	273	298	175	518	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	870	205	323	1153	154	305	300	259	192	569	169
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	920	217	220	1185	158	152	436	364	223	376	112
Arrive On Green	0.07	0.32	0.32	0.12	0.38	0.38	0.09	0.23	0.23	0.13	0.27	0.27
Sat Flow, veh/h	1781	2854	672	1781	3143	418	1781	1870	1561	1781	1378	409
Grp Volume(v), veh/h	98	541	534	323	650	657	305	300	259	192	0	738
Grp Sat Flow(s),veh/h/ln	1781	1777	1749	1781	1777	1784	1781	1870	1561	1781	0	1788
Q Serve(g_s), s	6.0	32.7	32.7	13.6	39.5	39.9	9.4	16.1	16.8	11.6	0.0	30.0
Cycle Q Clear(g_c), s	6.0	32.7	32.7	13.6	39.5	39.9	9.4	16.1	16.8	11.6	0.0	30.0
Prop In Lane	1.00		0.38	1.00		0.23	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	123	572	564	220	670	673	152	436	364	223	0	488
V/C Ratio(X)	0.80	0.95	0.95	1.47	0.97	0.98	2.00	0.69	0.71	0.86	0.00	1.51
Avail Cap(c_a), veh/h	139	574	565	220	670	673	152	436	364	300	0	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.4	36.3	36.3	48.2	33.6	33.7	50.3	38.5	38.7	47.1	0.0	40.0
Incr Delay (d2), s/veh	24.5	26.4	26.8	232.6	28.3	29.3	473.4	7.7	10.2	17.0	0.0	241.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	17.2	17.0	20.0	20.7	21.1	24.1	8.0	7.2	6.0	0.0	45.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.9	62.7	63.1	280.8	61.9	63.0	523.7	46.2	49.0	64.1	0.0	281.0
LnGrp LOS	E	E	E	F	E	E	F	D	D	E	A	F
Approach Vol, veh/h		1173			1630			864			930	
Approach Delay, s/veh		63.9			105.7			215.6			236.3	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	41.9	14.0	35.8	12.2	47.9	18.4	31.4				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	13.6	35.5	9.4	30.0	8.6	40.5	18.5	20.9				
Max Q Clear Time (g_c+I1), s	15.6	34.7	11.4	32.0	8.0	41.9	13.6	18.8				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.0	0.0	0.0	0.2	1.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	142.1											
HCM 6th LOS	F											

Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/06/2021

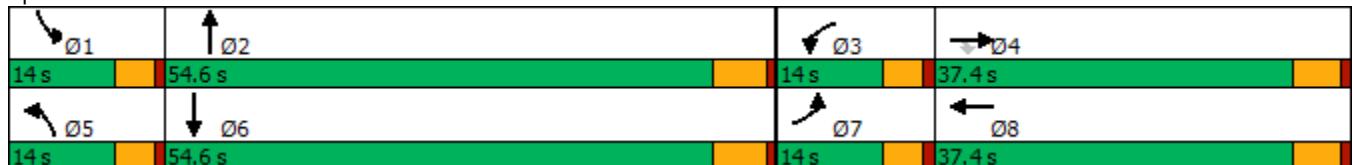


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	93	144	80	211	355	41	520	57	855
Future Volume (vph)	93	144	80	211	355	41	520	57	855
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 107  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.





HCM 6th Signalized Intersection Summary  
 18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	144	80	211	355	119	41	520	75	57	855	152
Future Volume (veh/h)	93	144	80	211	355	119	41	520	75	57	855	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	160	72	234	394	124	46	578	81	63	950	162
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	393	327	174	624	194	79	1338	187	91	1319	225
Arrive On Green	0.07	0.21	0.21	0.10	0.23	0.23	0.04	0.43	0.43	0.05	0.44	0.44
Sat Flow, veh/h	1781	1870	1558	1781	2657	826	1781	3117	436	1781	3027	516
Grp Volume(v), veh/h	103	160	72	234	262	256	46	329	330	63	557	555
Grp Sat Flow(s),veh/h/ln	1781	1870	1558	1781	1777	1706	1781	1777	1776	1781	1777	1766
Q Serve(g_s), s	5.5	7.1	3.7	9.4	12.7	13.0	2.4	12.5	12.5	3.3	24.8	24.8
Cycle Q Clear(g_c), s	5.5	7.1	3.7	9.4	12.7	13.0	2.4	12.5	12.5	3.3	24.8	24.8
Prop In Lane	1.00		1.00	1.00		0.48	1.00		0.25	1.00		0.29
Lane Grp Cap(c), veh/h	130	393	327	174	417	400	79	763	762	91	775	770
V/C Ratio(X)	0.79	0.41	0.22	1.34	0.63	0.64	0.59	0.43	0.43	0.70	0.72	0.72
Avail Cap(c_a), veh/h	174	623	519	174	591	568	174	902	902	174	902	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	32.8	31.5	43.4	33.0	33.1	45.1	19.2	19.2	44.9	22.3	22.3
Incr Delay (d2), s/veh	16.1	3.1	1.5	187.8	7.0	7.6	6.7	1.5	1.5	9.2	5.0	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.4	1.5	13.1	6.1	6.0	1.2	5.0	5.1	1.7	10.4	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	35.9	33.0	231.2	40.0	40.8	51.8	20.7	20.7	54.1	27.3	27.4
LnGrp LOS	E	D	C	F	D	D	D	C	C	D	C	C
Approach Vol, veh/h		335			752			705			1175	
Approach Delay, s/veh		42.7			99.8			22.7			28.8	
Approach LOS		D			F			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	47.1	14.0	25.6	8.8	47.7	11.6	28.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	32.0	9.4	48.8	9.4	32.0				
Max Q Clear Time (g_c+I1), s	5.3	14.5	11.4	9.1	4.4	26.8	7.5	15.0				
Green Ext Time (p_c), s	0.0	11.0	0.0	3.2	0.0	15.1	0.0	7.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			46.9									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	5	0	123	15	0	15	239	889	15	15	1333	0
Future Vol, veh/h	5	0	123	15	0	15	239	889	15	15	1333	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	91	92	92	91	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	134	16	0	16	260	977	16	16	1465	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2506	3010	733	2270	3002	497	1465	0	0	993	0	0
Stage 1	1497	1497	-	1505	1505	-	-	-	-	-	-	-
Stage 2	1009	1513	-	765	1497	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	5	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	5	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*18	*6	*523	*119	*6	519	*782	-	-	692	-	-
Stage 1	*493	*432	-	*242	*182	-	-	-	-	-	-	-
Stage 2	*257	*181	-	*493	*432	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*13	*4	*523	*64	*4	519	*782	-	-	692	-	-
Mov Cap-2 Maneuver	*127	*95	-	*90	*89	-	-	-	-	-	-	-
Stage 1	*329	*422	-	*162	*122	-	-	-	-	-	-	-
Stage 2	*166	*121	-	*358	*422	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16	34.8	2.5	0.1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 782	-	-	466	153	692	-
HCM Lane V/C Ratio	0.332	-	-	0.299	0.213	0.024	-
HCM Control Delay (s)	11.9	-	-	16	34.8	10.3	-
HCM Lane LOS	B	-	-	C	D	B	-
HCM 95th %tile Q(veh)	1.5	-	-	1.2	0.8	0.1	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/06/2021

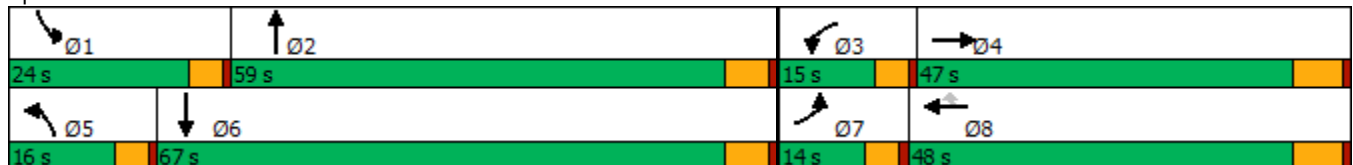


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↖↖	↕↕↗	↖↖	↕↕↕	↖	↖	↕↗	↖	↕↗
Traffic Volume (vph)	400	1093	291	1386	217	203	1145	644	1563
Future Volume (vph)	400	1093	291	1386	217	203	1145	644	1563
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	14.0	47.0	15.0	48.0	48.0	16.0	59.0	24.0	67.0
Total Split (%)	9.7%	32.4%	10.3%	33.1%	33.1%	11.0%	40.7%	16.6%	46.2%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)

12/06/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕↔		↔↔	↕↕↕	↔	↔	↕↔		↔	↕↔	
Traffic Volume (veh/h)	400	1093	387	291	1386	217	203	1145	488	644	1563	278
Future Volume (veh/h)	400	1093	387	291	1386	217	203	1145	488	644	1563	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.94	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	460	1256	445	334	1593	249	233	1316	561	740	1797	320
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	999	352	248	1461	427	140	894	347	238	1270	217
Arrive On Green	0.06	0.28	0.28	0.07	0.29	0.29	0.08	0.37	0.37	0.13	0.42	0.42
Sat Flow, veh/h	3456	3575	1259	3456	5106	1494	1781	2436	946	1781	3009	515
Grp Volume(v), veh/h	460	1195	506	334	1593	249	233	925	952	740	1031	1086
Grp Sat Flow(s),veh/h/ln	1728	1702	1430	1728	1702	1494	1781	1777	1605	1781	1777	1748
Q Serve(g_s), s	9.4	40.5	40.5	10.4	41.5	20.7	11.4	53.2	53.2	19.4	61.2	61.2
Cycle Q Clear(g_c), s	9.4	40.5	40.5	10.4	41.5	20.7	11.4	53.2	53.2	19.4	61.2	61.2
Prop In Lane	1.00		0.88	1.00		1.00	1.00		0.59	1.00		0.29
Lane Grp Cap(c), veh/h	224	951	399	248	1461	427	140	652	589	238	750	738
V/C Ratio(X)	2.05	1.26	1.27	1.35	1.09	0.58	1.66	1.42	1.62	3.11	1.38	1.47
Avail Cap(c_a), veh/h	224	951	399	248	1461	427	140	652	589	238	750	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.8	52.3	52.3	67.3	51.8	44.3	66.8	45.9	45.9	62.8	41.9	41.9
Incr Delay (d2), s/veh	489.2	124.4	138.1	180.8	52.1	3.2	328.0	197.4	285.3	958.3	177.2	219.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	33.2	29.4	10.7	24.2	7.9	17.9	58.3	67.1	72.1	62.5	70.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	557.0	176.7	190.3	248.1	103.9	47.5	394.8	243.3	331.2	1021.1	219.1	261.5
LnGrp LOS	F	F	F	F	F	D	F	F	F	F	F	F
Approach Vol, veh/h		2161			2176			2110			2857	
Approach Delay, s/veh		260.8			119.6			299.7			443.0	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	59.0	15.0	47.0	16.0	67.0	14.0	48.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	19.4	53.2	10.4	40.5	11.4	61.2	9.4	41.5				
Max Q Clear Time (g_c+1), s	21.4	55.2	12.4	42.5	13.4	63.2	11.4	43.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	292.5
HCM 6th LOS	F

Notes

User approved changes to right turn type.

Timings  
 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

Discovery Village (JN:14073)

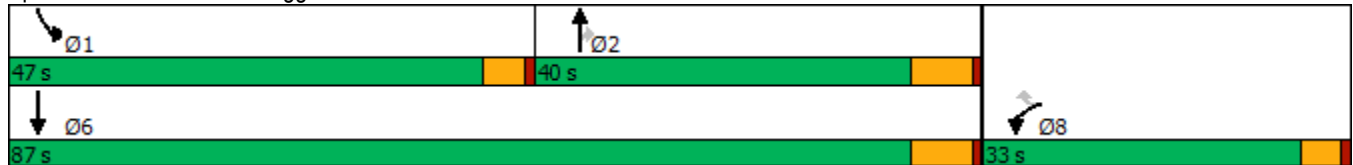
12/06/2021

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖↖	↖	↕↕	↗	↖↖	↕↕
Traffic Volume (vph)	218	929	707	273	950	602
Future Volume (vph)	218	929	707	273	950	602
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	28.5	28.5	9.6	16.5
Total Split (s)	33.0	33.0	40.0	40.0	47.0	87.0
Total Split (%)	27.5%	27.5%	33.3%	33.3%	39.2%	72.5%
Yellow Time (s)	3.6	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	6.5	6.5	4.6	6.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 93.2  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.



HCM 6th Signalized Intersection Summary  
 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶↶	↶	↕↕	↷	↶↶	↕↕
Traffic Volume (veh/h)	218	929	707	273	950	602
Future Volume (veh/h)	218	929	707	273	950	602
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	229	978	744	287	1000	634
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	492	875	911	406	1088	2189
Arrive On Green	0.28	0.28	0.26	0.26	0.31	0.62
Sat Flow, veh/h	1781	3170	3647	1585	3456	3647
Grp Volume(v), veh/h	229	978	744	287	1000	634
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1728	1777
Q Serve(g_s), s	11.0	28.4	20.3	16.9	28.7	8.6
Cycle Q Clear(g_c), s	11.0	28.4	20.3	16.9	28.7	8.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	492	875	911	406	1088	2189
V/C Ratio(X)	0.47	1.12	0.82	0.71	0.92	0.29
Avail Cap(c_a), veh/h	492	875	1157	516	1424	2781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	37.2	36.0	34.7	34.0	9.2
Incr Delay (d2), s/veh	0.7	68.1	3.7	3.2	7.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	18.4	8.6	6.4	12.0	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.6	105.3	39.7	37.9	41.0	9.3
LnGrp LOS	C	F	D	D	D	A
Approach Vol, veh/h	1207		1031			1634
Approach Delay, s/veh	91.3		39.2			28.7
Approach LOS	F		D			C
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	37.0	32.9			69.9	33.0
Change Period (Y+Rc), s	4.6	6.5			6.5	4.6
Max Green Setting (Gmax), s	42.4	33.5			80.5	28.4
Max Q Clear Time (g_c+I1), s	30.7	22.3			10.6	30.4
Green Ext Time (p_c), s	1.7	4.1			4.1	0.0

Intersection Summary

HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

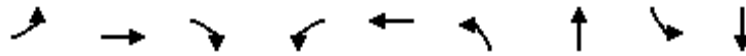
Notes

User approved volume balancing among the lanes for turning movement.

Timings  
24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

12/06/2021

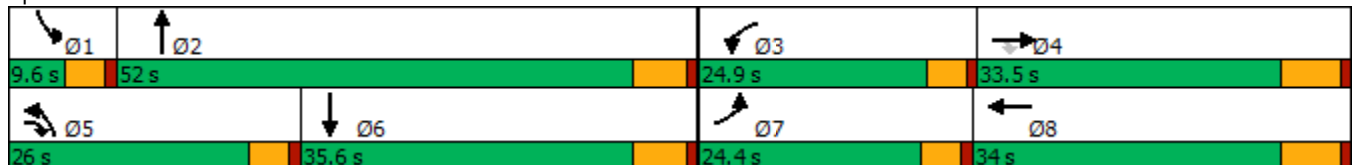


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↖↖	↑↑	↖↖	↑↑
Traffic Volume (vph)	394	456	819	555	828	698	504	39	766
Future Volume (vph)	394	456	819	555	828	698	504	39	766
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	24.4	33.5	26.0	24.9	34.0	26.0	52.0	9.6	35.6
Total Split (%)	20.3%	27.9%	21.7%	20.8%	28.3%	21.7%	43.3%	8.0%	29.7%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 116.7  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated































Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)

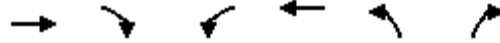
12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	394	456	819	555	828	28	698	504	306	39	766	327
Future Volume (veh/h)	394	456	819	555	828	28	698	504	306	39	766	327
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	402	465	224	566	845	15	712	514	206	40	782	79
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	743	613	616	885	16	669	1038	414	112	841	85
Arrive On Green	0.20	0.30	0.30	0.26	0.36	0.36	0.28	0.61	0.61	0.05	0.38	0.38
Sat Flow, veh/h	3563	3741	1585	3563	3664	65	3563	2544	1014	3563	3342	338
Grp Volume(v), veh/h	402	465	224	566	431	429	712	377	343	40	438	423
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1859	1781	1870	1688	1781	1870	1810
Q Serve(g_s), s	12.4	12.2	11.0	17.6	25.6	25.6	21.4	12.8	12.9	1.2	25.6	25.6
Cycle Q Clear(g_c), s	12.4	12.2	11.0	17.6	25.6	25.6	21.4	12.8	12.9	1.2	25.6	25.6
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.60	1.00		0.19
Lane Grp Cap(c), veh/h	464	743	613	616	452	449	669	763	689	112	471	455
V/C Ratio(X)	0.87	0.63	0.37	0.92	0.96	0.96	1.06	0.49	0.50	0.36	0.93	0.93
Avail Cap(c_a), veh/h	619	887	674	635	452	449	669	763	689	156	489	473
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	36.3	21.7	41.4	35.7	35.7	40.9	15.6	15.6	53.1	34.5	34.5
Incr Delay (d2), s/veh	7.9	1.0	0.4	17.7	31.1	31.2	53.0	0.5	0.6	0.7	23.9	24.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	5.0	3.6	8.1	13.5	13.4	13.0	4.4	4.0	0.5	12.8	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	37.4	22.1	59.1	66.8	67.0	93.9	16.1	16.1	53.9	58.4	59.1
LnGrp LOS	D	D	C	E	E	E	F	B	B	D	E	E
Approach Vol, veh/h		1091			1426			1432			901	
Approach Delay, s/veh		39.9			63.8			54.8			58.5	
Approach LOS		D			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	52.3	24.3	29.1	26.0	34.5	19.4	34.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	46.2	20.3	27.0	21.4	29.8	19.8	27.5				
Max Q Clear Time (g_c+1), s	3.2	14.9	19.6	14.2	23.4	27.6	14.4	27.6				
Green Ext Time (p_c), s	0.0	4.5	0.1	2.8	0.0	1.1	0.4	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			54.8									
HCM 6th LOS			D									



Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
12/07/2021

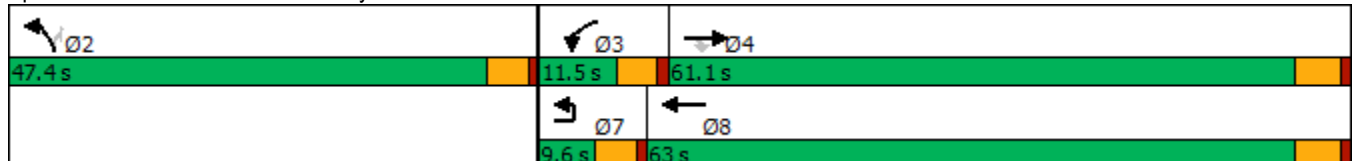


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑	↑	↓	↑	↓	↓	
Traffic Volume (vph)	2500	453	115	2075	470	189	
Future Volume (vph)	2500	453	115	2075	470	189	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	61.1	61.1	11.5	63.0	47.4	47.4	9.6
Total Split (%)	50.9%	50.9%	9.6%	52.5%	39.5%	39.5%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 113  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	0	2500	453	115	2075	470	189
Future Volume (veh/h)	0	2500	453	115	2075	470	189
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		2632	368	121	2184	495	180
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1795	800	111	1139	540	480
Arrive On Green		0.51	0.51	0.06	0.61	0.30	0.30
Sat Flow, veh/h		3647	1585	1781	1870	1781	1585
Grp Volume(v), veh/h		2632	368	121	2184	495	180
Grp Sat Flow(s),veh/h/ln		1777	1585	1781	1870	1781	1585
Q Serve(g_s), s		56.0	16.6	6.9	67.5	29.7	9.9
Cycle Q Clear(g_c), s		56.0	16.6	6.9	67.5	29.7	9.9
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1795	800	111	1139	540	480
V/C Ratio(X)		1.47	0.46	1.09	1.92	0.92	0.37
Avail Cap(c_a), veh/h		1795	800	111	1139	686	610
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		27.4	17.7	52.0	21.7	37.3	30.4
Incr Delay (d2), s/veh		213.1	0.4	112.3	416.5	14.9	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		75.1	5.9	6.5	157.7	15.0	3.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		240.5	18.1	164.3	438.2	52.2	30.9
LnGrp LOS		F	B	F	F	D	C
Approach Vol, veh/h		3000			2305	675	
Approach Delay, s/veh		213.2			423.8	46.5	
Approach LOS		F			F	D	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		38.3	11.5	61.1			72.6
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 43	6.9	56.0			57.9
Max Q Clear Time (g_c+I1), s		31.7	8.9	58.0			69.5
Green Ext Time (p_c), s		1.8	0.0	0.0			0.0

Intersection Summary

HCM 6th Ctrl Delay	275.6
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1447	163	678	1260	131	132	105	551	162	78	36
Future Volume (vph)	64	1447	163	678	1260	131	132	105	551	162	78	36
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	31.8	31.8	31.8	31.8	31.8	11.8	11.8	11.8
Total Split (s)	15.0	48.2	48.2	30.0	63.2	63.2	31.8	31.8	31.8	31.8	31.8	31.8
Total Split (%)	13.6%	43.8%	43.8%	27.3%	57.5%	57.5%	28.9%	28.9%	28.9%	28.9%	28.9%	28.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 107.8  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	1447	163	678	1260	131	132	105	551	162	78	36
Future Volume (veh/h)	64	1447	163	678	1260	131	132	105	551	162	78	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1539	152	721	1340	105	140	112	321	172	83	35
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	1370	594	411	2015	879	321	442	368	244	442	370
Arrive On Green	0.05	0.39	0.39	0.23	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3554	1542	1781	3554	1550	1274	1870	1557	953	1870	1565
Grp Volume(v), veh/h	68	1539	152	721	1340	105	140	112	321	172	83	35
Grp Sat Flow(s),veh/h/ln	1781	1777	1542	1781	1777	1550	1274	1870	1557	953	1870	1565
Q Serve(g_s), s	4.2	42.4	7.4	25.4	28.8	3.5	10.9	5.4	21.8	19.7	3.9	1.9
Cycle Q Clear(g_c), s	4.2	42.4	7.4	25.4	28.8	3.5	14.8	5.4	21.8	25.0	3.9	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	1370	594	411	2015	879	321	442	368	244	442	370
V/C Ratio(X)	0.78	1.12	0.26	1.75	0.66	0.12	0.44	0.25	0.87	0.70	0.19	0.09
Avail Cap(c_a), veh/h	168	1370	594	411	2015	879	321	442	368	244	442	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	33.8	23.0	42.3	16.5	11.1	39.5	34.1	40.4	44.3	33.6	32.8
Incr Delay (d2), s/veh	13.5	65.7	0.3	348.7	0.9	0.1	1.2	0.4	20.1	9.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	29.5	2.6	50.5	10.7	1.1	3.5	2.5	10.3	5.2	1.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.2	99.5	23.4	391.0	17.5	11.1	40.6	34.5	60.6	53.6	33.8	32.9
LnGrp LOS	E	F	C	F	B	B	D	C	E	D	C	C
Approach Vol, veh/h		1759			2166			573			290	
Approach Delay, s/veh		91.6			141.5			50.6			45.4	
Approach LOS		F			F			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.0	48.2		31.8	10.0	68.2		31.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	25.4	42.4		26.0	10.4	57.4		26.0				
Max Q Clear Time (g_c+I1), s	27.4	44.4		27.0	6.2	30.8		23.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	14.7		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	106.5											
HCM 6th LOS	F											

Timings  
3: California Oaks St. & Clinton Keith Rd.

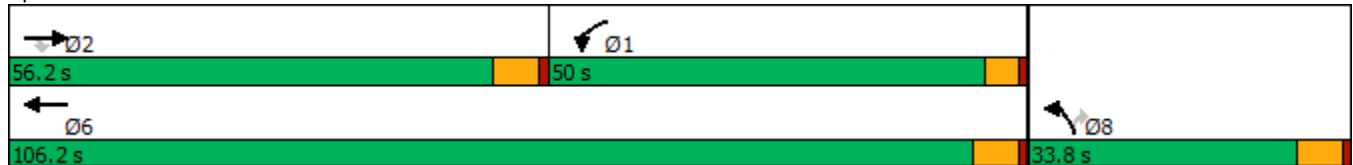


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓↓	↓
Traffic Volume (vph)	1938	193	1083	1849	193	1000
Future Volume (vph)	1938	193	1083	1849	193	1000
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	32.8	32.8	10.6	15.8	33.8	33.8
Total Split (s)	56.2	56.2	50.0	106.2	33.8	33.8
Total Split (%)	40.1%	40.1%	35.7%	75.9%	24.1%	24.1%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 137  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	1938	193	1083	1849	193	1000
Future Volume (veh/h)	1938	193	1083	1849	193	1000
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2130	179	1190	2032	212	973
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1268	553	573	2557	353	629
Arrive On Green	0.36	0.36	0.32	0.72	0.20	0.20
Sat Flow, veh/h	3647	1550	1781	3647	1781	3170
Grp Volume(v), veh/h	2130	179	1190	2032	212	973
Grp Sat Flow(s),veh/h/ln	1777	1550	1781	1777	1781	1585
Q Serve(g_s), s	50.4	11.9	45.4	52.9	15.3	28.0
Cycle Q Clear(g_c), s	50.4	11.9	45.4	52.9	15.3	28.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1268	553	573	2557	353	629
V/C Ratio(X)	1.68	0.32	2.08	0.79	0.60	1.55
Avail Cap(c_a), veh/h	1268	553	573	2557	353	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	33.0	47.9	13.0	51.5	56.6
Incr Delay (d2), s/veh	309.1	0.4	491.0	1.9	3.6	254.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	75.8	4.4	97.6	18.4	7.1	33.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	354.5	33.5	538.9	14.9	55.1	311.0
LnGrp LOS	F	C	F	B	E	F
Approach Vol, veh/h	2309			3222	1185	
Approach Delay, s/veh	329.6			208.4	265.2	
Approach LOS	F			F	F	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	51.2	56.2			107.4	33.8
Change Period (Y+Rc), s	5.8	* 5.8			5.8	5.8
Max Green Setting (Gmax), s	45.4	* 50			100.4	28.0
Max Q Clear Time (g_c+I1), s	47.4	52.4			54.9	30.0
Green Ext Time (p_c), s	0.0	0.0			32.3	0.0

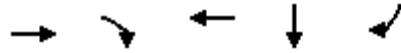
Intersection Summary

HCM 6th Ctrl Delay	260.1
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
4: I-215 SB Ramps & Clinton Keith Rd.

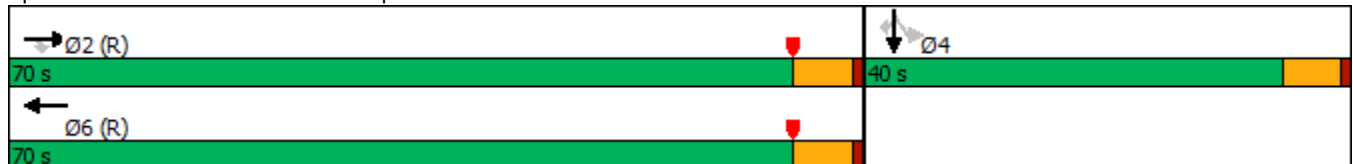


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑↑
Traffic Volume (vph)	2285	799	2142	1	842
Future Volume (vph)	2285	799	2142	1	842
Turn Type	NA	Perm	NA	NA	Perm
Protected Phases	2		6	4	
Permitted Phases		2			4
Detector Phase	2	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.8	32.8	23.8	23.8	23.8
Total Split (s)	70.0	70.0	70.0	40.0	40.0
Total Split (%)	63.6%	63.6%	63.6%	36.4%	36.4%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated













Splits and Phases: 4: I-215 SB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 4: I-215 SB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗		↑↑↑						↖	↗↗
Traffic Volume (veh/h)	0	2285	799	0	2142	808	0	0	0	508	1	842
Future Volume (veh/h)	0	2285	799	0	2142	808	0	0	0	508	1	842
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	2380	832	0	2231	842				529	1	877
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	2980	910	0	2201	728				553	1	867
Arrive On Green	0.00	0.58	0.58	0.00	1.00	1.00				0.31	0.31	0.31
Sat Flow, veh/h	0	5274	1560	0	3939	1248				1778	3	2790
Grp Volume(v), veh/h	0	2380	832	0	1983	1090				530	0	877
Grp Sat Flow(s),veh/h/ln	0	1702	1560	0	1702	1615				1781	0	1395
Q Serve(g_s), s	0.0	40.0	52.4	0.0	0.0	64.2				32.1	0.0	34.2
Cycle Q Clear(g_c), s	0.0	40.0	52.4	0.0	0.0	64.2				32.1	0.0	34.2
Prop In Lane	0.00		1.00	0.00		0.77				1.00		1.00
Lane Grp Cap(c), veh/h	0	2980	910	0	1987	942				554	0	867
V/C Ratio(X)	0.00	0.80	0.91	0.00	1.00	1.16				0.96	0.00	1.01
Avail Cap(c_a), veh/h	0	2980	910	0	1987	942				554	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.09	0.09				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.9	20.4	0.0	0.0	0.0				37.2	0.0	37.9
Incr Delay (d2), s/veh	0.0	2.3	15.1	0.0	5.7	71.6				27.5	0.0	33.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.3	20.2	0.0	1.6	18.7				17.8	0.0	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.2	35.6	0.0	5.7	71.6				64.7	0.0	71.2
LnGrp LOS	A	C	D	A	A	F				E	A	F
Approach Vol, veh/h		3212			3073						1407	
Approach Delay, s/veh		24.2			29.0						68.8	
Approach LOS		C			C						E	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		70.0		40.0		70.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		64.2		34.2		64.2						
Max Q Clear Time (g_c+I1), s		54.4		36.2		66.2						
Green Ext Time (p_c), s		8.2		0.0		0.0						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			34.3									
HCM 6th LOS			C									



Timings  
5: I-215 NB Ramps & Clinton Keith Rd.

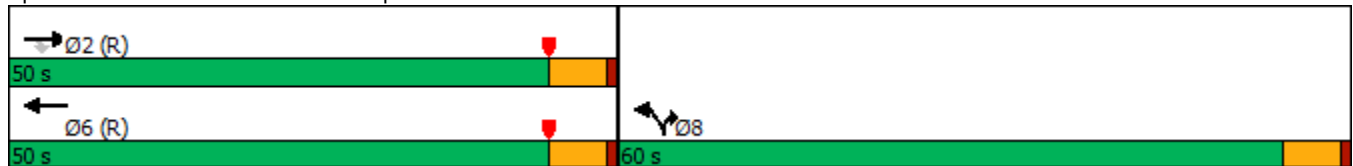


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑	↑
Traffic Volume (vph)	1868	883	1856	1099	1217
Future Volume (vph)	1868	883	1856	1099	1217
Turn Type	NA	Perm	NA	Prot	Prot
Protected Phases	2		6	8	8
Permitted Phases		2			
Detector Phase	2	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.8	23.8	10.8	10.8	10.8
Total Split (s)	50.0	50.0	50.0	60.0	60.0
Total Split (%)	45.5%	45.5%	45.5%	54.5%	54.5%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated

Splits and Phases: 5: I-215 NB Ramps & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 5: I-215 NB Ramps & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑		↑↑↑	↑	↑
Traffic Volume (veh/h)	1868	883	0	1856	1099	1217
Future Volume (veh/h)	1868	883	0	1856	1099	1217
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	1966	0	0	1954	1157	597
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2255		0	2255	878	781
Arrive On Green	0.80	0.00	0.00	0.40	0.49	0.49
Sat Flow, veh/h	5611	1585	0	5611	1781	1585
Grp Volume(v), veh/h	1966	0	0	1954	1157	597
Grp Sat Flow(s),veh/h/ln	1870	1585	0	1870	1781	1585
Q Serve(g_s), s	25.3	0.0	0.0	35.2	54.2	33.7
Cycle Q Clear(g_c), s	25.3	0.0	0.0	35.2	54.2	33.7
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2255		0	2255	878	781
V/C Ratio(X)	0.87		0.00	0.87	1.32	0.76
Avail Cap(c_a), veh/h	2255		0	2255	878	781
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.00	0.00	0.09	1.00	1.00
Uniform Delay (d), s/veh	8.9	0.0	0.0	30.2	27.9	22.7
Incr Delay (d2), s/veh	2.6	0.0	0.0	0.5	151.2	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.0	14.8	58.3	12.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.5	0.0	0.0	30.7	179.1	26.8
LnGrp LOS	B		A	C	F	C
Approach Vol, veh/h	1966	A		1954	1754	
Approach Delay, s/veh	11.5			30.7	127.3	
Approach LOS	B			C	F	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		50.0			50.0	60.0
Change Period (Y+Rc), s		5.8			5.8	5.8
Max Green Setting (Gmax), s		44.2			44.2	54.2
Max Q Clear Time (g_c+I1), s		27.3			37.2	56.2
Green Ext Time (p_c), s		9.1			4.9	0.0

Intersection Summary

HCM 6th Ctrl Delay	53.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.  
 Unsignalized Delay for [EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

Timings  
6: Antelope Rd. & Scott Rd.

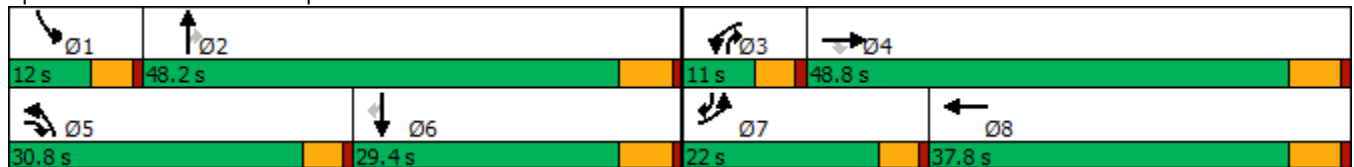


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	657	1070	389	116	908	514	320	140	120	150	395
Future Volume (vph)	657	1070	389	116	908	514	320	140	120	150	395
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.6	34.8	9.6	9.6	37.8	9.6	47.8	9.6	9.6	15.8	9.6
Total Split (s)	22.0	48.8	30.8	11.0	37.8	30.8	48.2	11.0	12.0	29.4	22.0
Total Split (%)	18.3%	40.7%	25.7%	9.2%	31.5%	25.7%	40.2%	9.2%	10.0%	24.5%	18.3%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	3.6	4.8	3.6	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	4.6	5.8	4.6	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 100.9  
 Natural Cycle: 125  
 Control Type: Actuated-Uncoordinated
























Splits and Phases: 6: Antelope Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
6: Antelope Rd. & Scott Rd.

Discovery Village (JN:14073)

12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	657	1070	389	116	908	167	514	320	140	120	150	395
Future Volume (veh/h)	657	1070	389	116	908	167	514	320	140	120	150	395
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	670	1092	280	118	927	160	524	327	95	122	153	344
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	573	1336	870	176	1144	197	600	1081	556	126	376	581
Arrive On Green	0.17	0.38	0.38	0.05	0.26	0.26	0.17	0.30	0.30	0.07	0.20	0.20
Sat Flow, veh/h	3456	3554	1583	3456	4385	754	3456	3554	1562	1781	1870	1585
Grp Volume(v), veh/h	670	1092	280	118	719	368	524	327	95	122	153	344
Grp Sat Flow(s),veh/h/ln	1728	1777	1583	1728	1702	1735	1728	1777	1562	1781	1870	1585
Q Serve(g_s), s	17.4	29.0	10.2	3.5	20.7	20.9	15.5	7.4	4.4	7.2	7.5	18.4
Cycle Q Clear(g_c), s	17.4	29.0	10.2	3.5	20.7	20.9	15.5	7.4	4.4	7.2	7.5	18.4
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	573	1336	870	176	888	453	600	1081	556	126	376	581
V/C Ratio(X)	1.17	0.82	0.32	0.67	0.81	0.81	0.87	0.30	0.17	0.97	0.41	0.59
Avail Cap(c_a), veh/h	573	1457	924	211	1039	529	863	1437	713	126	421	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	29.5	12.9	48.9	36.3	36.3	42.2	28.0	23.2	48.6	36.5	26.8
Incr Delay (d2), s/veh	93.4	3.5	0.2	3.8	4.2	8.2	5.2	0.2	0.1	70.5	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.6	12.2	3.3	1.6	8.7	9.4	6.8	3.0	1.6	5.5	3.4	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	137.1	33.0	13.1	52.7	40.5	44.6	47.4	28.1	23.4	119.1	37.2	28.2
LnGrp LOS	F	C	B	D	D	D	D	C	C	F	D	C
Approach Vol, veh/h		2042			1205			946			619	
Approach Delay, s/veh		64.4			43.0			38.3			48.3	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	37.7	10.0	45.2	22.8	26.9	22.0	33.2				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	7.4	42.4	6.4	43.0	26.2	23.6	17.4	32.0				
Max Q Clear Time (g_c+1), s	9.2	9.4	5.5	31.0	17.5	20.4	19.4	22.9				
Green Ext Time (p_c), s	0.0	2.3	0.0	6.2	0.7	0.7	0.0	4.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				51.9								
HCM 6th LOS				D								

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	38	422	5	15	320
Future Vol, veh/h	13	38	422	5	15	320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	41	459	5	16	348

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	842	462	0	0	464
Stage 1	462	-	-	-	-
Stage 2	380	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	334	600	-	-	1097
Stage 1	634	-	-	-	-
Stage 2	691	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	328	600	-	-	1097
Mov Cap-2 Maneuver	449	-	-	-	-
Stage 1	634	-	-	-	-
Stage 2	679	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	553	1097
HCM Lane V/C Ratio	-	-	0.1	0.015
HCM Control Delay (s)	-	-	12.2	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Timings  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)

03/28/2022

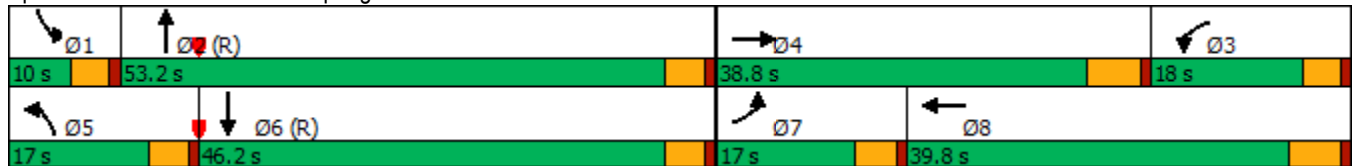


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↶↷	↶	↶↷	↶	↶↷	↶	↶↷
Traffic Volume (vph)	194	588	223	318	195	1199	82	1016
Future Volume (vph)	194	588	223	318	195	1199	82	1016
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	38.8	9.5	38.8	9.5	25.6	9.5	25.6
Total Split (s)	17.0	38.8	18.0	39.8	17.0	53.2	10.0	46.2
Total Split (%)	14.2%	32.3%	15.0%	33.2%	14.2%	44.3%	8.3%	38.5%
Yellow Time (s)	3.6	4.8	3.5	4.8	3.5	3.6	3.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.5	5.8	4.5	4.6	4.5	4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary






















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 7 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 145  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: Warm Springs Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)  
03/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	588	381	223	318	103	195	1199	309	82	1016	169
Future Volume (veh/h)	194	588	381	223	318	103	195	1199	309	82	1016	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	639	278	242	346	85	212	1303	200	89	1104	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	663	288	200	834	202	186	2357	359	82	2292	234
Arrive On Green	0.10	0.28	0.28	0.11	0.29	0.29	0.10	0.76	0.76	0.05	0.70	0.70
Sat Flow, veh/h	1781	2410	1048	1781	2835	687	1781	3092	471	1781	3255	333
Grp Volume(v), veh/h	211	471	446	242	215	216	212	745	758	89	602	615
Grp Sat Flow(s),veh/h/ln	1781	1777	1682	1781	1777	1746	1781	1777	1786	1781	1777	1810
Q Serve(g_s), s	12.4	31.4	31.4	13.5	11.7	11.9	12.5	20.6	21.0	5.5	18.2	18.3
Cycle Q Clear(g_c), s	12.4	31.4	31.4	13.5	11.7	11.9	12.5	20.6	21.0	5.5	18.2	18.3
Prop In Lane	1.00		0.62	1.00		0.39	1.00		0.26	1.00		0.18
Lane Grp Cap(c), veh/h	184	489	462	200	523	514	186	1355	1362	82	1251	1275
V/C Ratio(X)	1.15	0.96	0.96	1.21	0.41	0.42	1.14	0.55	0.56	1.09	0.48	0.48
Avail Cap(c_a), veh/h	184	489	462	200	523	514	186	1355	1362	82	1251	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	42.9	42.9	53.3	34.0	34.1	53.8	5.8	5.9	57.2	7.9	8.0
Incr Delay (d2), s/veh	111.2	31.8	32.9	130.8	0.8	0.9	109.6	1.6	1.6	126.2	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	17.5	16.7	13.2	5.0	5.0	11.3	7.4	7.6	5.3	6.6	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	165.0	74.7	75.8	184.0	34.8	35.0	163.4	7.4	7.5	183.5	9.3	9.3
LnGrp LOS	F	E	E	F	C	C	F	A	A	F	A	A
Approach Vol, veh/h		1128			673			1715			1306	
Approach Delay, s/veh		92.0			88.5			26.8			21.1	
Approach LOS		F			F			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	97.4	19.3	38.8	17.0	90.4	17.0	41.1				
Change Period (Y+Rc), s	4.5	4.6	5.8	* 5.8	4.5	4.6	4.6	5.8				
Max Green Setting (Gmax), s	5.5	48.6	13.5	* 33	12.5	41.6	12.4	34.0				
Max Q Clear Time (g_c+I1), s	7.5	23.0	15.5	33.4	14.5	20.3	14.4	13.9				
Green Ext Time (p_c), s	0.0	13.5	0.0	0.0	0.0	8.5	0.0	3.5				

Intersection Summary

HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	38	0	1703	1615	5
Future Vol, veh/h	0	38	0	1703	1615	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	0	1851	1755	5

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	880	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	*375	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %		1		-	-
Mov Cap-1 Maneuver	-	*375	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	375	-	-
HCM Lane V/C Ratio	-	0.11	-	-
HCM Control Delay (s)	-	15.8	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	
Traffic Vol, veh/h	63	63	59	1640	1648	5
Future Vol, veh/h	63	63	59	1640	1648	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	68	64	1783	1791	5

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	2814	898	1796	0	0
Stage 1	1794	-	-	-	-
Stage 2	1020	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-
Pot Cap-1 Maneuver	*~ 9	*375	*561	-	-
Stage 1	*354	-	-	-	-
Stage 2	*309	-	-	-	-
Platoon blocked, %	1	1	1	-	-
Mov Cap-1 Maneuver	*~ 8	*375	*561	-	-
Mov Cap-2 Maneuver	*199	-	-	-	-
Stage 1	*313	-	-	-	-
Stage 2	*309	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.3	0.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 561	-	260	-	-
HCM Lane V/C Ratio	0.114	-	0.527	-	-
HCM Control Delay (s)	12.2	-	33.3	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.4	-	2.8	-	-

Notes  
~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	38	0	1699	1701	10
Future Vol, veh/h	0	38	0	1699	1701	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	0	1847	1849	11

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	930	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	*348	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %		1		-	-
Mov Cap-1 Maneuver	-	*348	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 348	-	-
HCM Lane V/C Ratio	- 0.119	-	-
HCM Control Delay (s)	- 16.7	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.4	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↵		↵	↵		↵	↕↕		↵	↕↕	
Traffic Vol, veh/h	0	0	0	0	0	116	0	1583	0	139	1600	0
Future Vol, veh/h	0	0	0	0	0	116	0	1583	0	139	1600	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	126	0	1721	0	151	1739	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2902	3762	870	2893	3762	861	1739	0	0	1721	0	0
Stage 1	2041	2041	-	1721	1721	-	-	-	-	-	-	-
Stage 2	861	1721	-	1172	2041	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	7	4	295	7	4	299	358	-	-	364	-	-
Stage 1	58	98	-	93	143	-	-	-	-	-	-	-
Stage 2	317	143	-	204	98	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	3	2	295	5	2	299	358	-	-	364	-	-
Mov Cap-2 Maneuver	3	2	-	5	2	-	-	-	-	-	-	-
Stage 1	58	57	-	93	143	-	-	-	-	-	-	-
Stage 2	183	143	-	119	57	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	25.5	0	1.7
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	358	-	-	-	-	-	-	299	364	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.422	0.415	-
HCM Control Delay (s)	0	-	-	0	0	0	0	25.5	21.7	-
HCM Lane LOS	A	-	-	A	A	A	A	D	C	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	2	2	-

Intersection						
Int Delay, s/veh	7.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	38	0	5	15	0
Future Vol, veh/h	13	38	0	5	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	41	0	5	16	0

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	35	3	0	0	5
Stage 1	3	-	-	-	-
Stage 2	32	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	978	1081	-	-	1616
Stage 1	1020	-	-	-	-
Stage 2	991	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	968	1081	-	-	1616
Mov Cap-2 Maneuver	893	-	-	-	-
Stage 1	1020	-	-	-	-
Stage 2	981	-	-	-	-

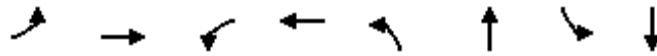
Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1026	1616
HCM Lane V/C Ratio	-	-	0.054	0.01
HCM Control Delay (s)	-	-	8.7	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Timings  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)

03/28/2022

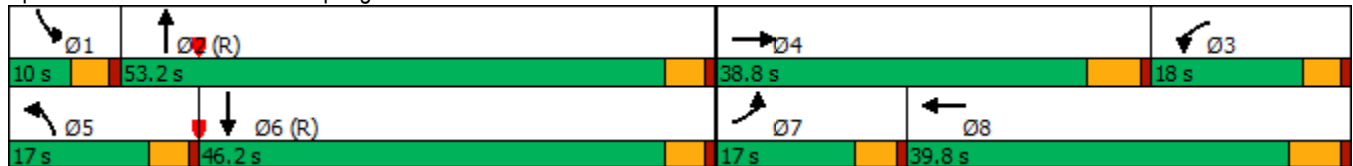


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↶↷	↶	↶↷	↶	↶↷	↶	↶↷
Traffic Volume (vph)	194	588	223	318	195	1199	82	1016
Future Volume (vph)	194	588	223	318	195	1199	82	1016
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	38.8	9.5	38.8	9.5	25.6	9.5	25.6
Total Split (s)	17.0	38.8	18.0	39.8	17.0	53.2	10.0	46.2
Total Split (%)	14.2%	32.3%	15.0%	33.2%	14.2%	44.3%	8.3%	38.5%
Yellow Time (s)	3.6	4.8	3.5	4.8	3.5	3.6	3.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.5	5.8	4.5	4.6	4.5	4.6
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 7 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 145  
 Control Type: Actuated-Coordinated

Splits and Phases: 8: Warm Springs Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
8: Warm Springs Rd. & Baxter Rd.

Discovery Village (JN:14073)  
03/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗↘	
Traffic Volume (veh/h)	194	588	381	223	318	103	195	1199	309	82	1016	169
Future Volume (veh/h)	194	588	381	223	318	103	195	1199	309	82	1016	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	639	278	242	346	85	212	1303	200	89	1104	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	663	288	200	834	202	186	2357	359	82	2292	234
Arrive On Green	0.10	0.28	0.28	0.11	0.29	0.29	0.10	0.76	0.76	0.05	0.70	0.70
Sat Flow, veh/h	1781	2410	1048	1781	2835	687	1781	3092	471	1781	3255	333
Grp Volume(v), veh/h	211	471	446	242	215	216	212	745	758	89	602	615
Grp Sat Flow(s),veh/h/ln	1781	1777	1682	1781	1777	1746	1781	1777	1786	1781	1777	1810
Q Serve(g_s), s	12.4	31.4	31.4	13.5	11.7	11.9	12.5	20.6	21.0	5.5	18.2	18.3
Cycle Q Clear(g_c), s	12.4	31.4	31.4	13.5	11.7	11.9	12.5	20.6	21.0	5.5	18.2	18.3
Prop In Lane	1.00		0.62	1.00		0.39	1.00		0.26	1.00		0.18
Lane Grp Cap(c), veh/h	184	489	462	200	523	514	186	1355	1362	82	1251	1275
V/C Ratio(X)	1.15	0.96	0.96	1.21	0.41	0.42	1.14	0.55	0.56	1.09	0.48	0.48
Avail Cap(c_a), veh/h	184	489	462	200	523	514	186	1355	1362	82	1251	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	42.9	42.9	53.3	34.0	34.1	53.8	5.8	5.9	57.2	7.9	8.0
Incr Delay (d2), s/veh	111.2	31.8	32.9	130.8	0.8	0.9	109.6	1.6	1.6	126.2	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	17.5	16.7	13.2	5.0	5.0	11.3	7.4	7.6	5.3	6.6	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	165.0	74.7	75.8	184.0	34.8	35.0	163.4	7.4	7.5	183.5	9.3	9.3
LnGrp LOS	F	E	E	F	C	C	F	A	A	F	A	A
Approach Vol, veh/h		1128			673			1715			1306	
Approach Delay, s/veh		92.0			88.5			26.8			21.1	
Approach LOS		F			F			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	97.4	19.3	38.8	17.0	90.4	17.0	41.1				
Change Period (Y+Rc), s	4.5	4.6	5.8	* 5.8	4.5	4.6	4.6	5.8				
Max Green Setting (Gmax), s	5.5	48.6	13.5	* 33	12.5	41.6	12.4	34.0				
Max Q Clear Time (g_c+I1), s	7.5	23.0	15.5	33.4	14.5	20.3	14.4	13.9				
Green Ext Time (p_c), s	0.0	13.5	0.0	0.0	0.0	8.5	0.0	3.5				

Intersection Summary

HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	38	0	1703	1615	5
Future Vol, veh/h	0	38	0	1703	1615	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	0	1851	1755	5

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	880	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	*375	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %		1		-	-
Mov Cap-1 Maneuver	-	*375	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 375	-	-
HCM Lane V/C Ratio	- 0.11	-	-
HCM Control Delay (s)	- 15.8	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.4	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	63	59	1640	1648	5
Future Vol, veh/h	63	63	59	1640	1648	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	68	64	1783	1791	5

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2814	898	1796	0	-	0
Stage 1	1794	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*~ 9	*375	*561	-	-	-
Stage 1	*354	-	-	-	-	-
Stage 2	*309	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*~ 8	*375	*561	-	-	-
Mov Cap-2 Maneuver	*199	-	-	-	-	-
Stage 1	*313	-	-	-	-	-
Stage 2	*309	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.3	0.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 561	-	260	-	-
HCM Lane V/C Ratio	0.114	-	0.527	-	-
HCM Control Delay (s)	12.2	-	33.3	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.4	-	2.8	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	38	0	1699	1701	10
Future Vol, veh/h	0	38	0	1699	1701	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	0	1847	1849	11

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	930	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	*348	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %		1		-	-
Mov Cap-1 Maneuver	-	*348	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	348	-	-
HCM Lane V/C Ratio	-	0.119	-	-
HCM Control Delay (s)	-	16.7	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↵		↵	↵		↵	↕↕		↵	↕↕	
Traffic Vol, veh/h	0	0	0	0	0	116	0	1583	0	139	1600	0
Future Vol, veh/h	0	0	0	0	0	116	0	1583	0	139	1600	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	126	0	1721	0	151	1739	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2902	3762	870	2893	3762	861	1739	0	0	1721	0	0
Stage 1	2041	2041	-	1721	1721	-	-	-	-	-	-	-
Stage 2	861	1721	-	1172	2041	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	7	4	295	7	4	299	358	-	-	364	-	-
Stage 1	58	98	-	93	143	-	-	-	-	-	-	-
Stage 2	317	143	-	204	98	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	3	2	295	5	2	299	358	-	-	364	-	-
Mov Cap-2 Maneuver	3	2	-	5	2	-	-	-	-	-	-	-
Stage 1	58	57	-	93	143	-	-	-	-	-	-	-
Stage 2	183	143	-	119	57	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	25.5	0	1.7
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	358	-	-	-	-	-	-	299	364	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.422	0.415	-
HCM Control Delay (s)	0	-	-	0	0	0	0	25.5	21.7	-
HCM Lane LOS	A	-	-	A	A	A	A	D	C	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	2	2	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	958	20	0	643	0	12
Future Vol, veh/h	958	20	0	643	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1041	22	0	699	0	13

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	532
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	492
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	492
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	492	-	-	-
HCM Lane V/C Ratio	0.027	-	-	-
HCM Control Delay (s)	12.5	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	939	31	0	643	0	18
Future Vol, veh/h	939	31	0	643	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1021	34	0	699	0	20

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	528
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	495
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	495
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	495	-	-	-
HCM Lane V/C Ratio	0.04	-	-	-
HCM Control Delay (s)	12.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

15: Running Rabbit Rd. & Street G

03/28/2022

Intersection							
Int Delay, s/veh	1.6						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	4		4		
Traffic Vol, veh/h	0	139	116	102	61	0	
Future Vol, veh/h	0	139	116	102	61	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	0	151	126	111	66	0	

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	237	0	0	333
Stage 1	-	-	-	182
Stage 2	-	-	-	151
Critical Hdwy	4.12	-	-	6.42
Critical Hdwy Stg 1	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	3.518
Pot Cap-1 Maneuver	1330	-	-	662
Stage 1	-	-	-	849
Stage 2	-	-	-	877
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	662
Mov Cap-2 Maneuver	-	-	-	662
Stage 1	-	-	-	849
Stage 2	-	-	-	877

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	1330	-	-	-	-	662
HCM Lane V/C Ratio	-	-	-	-	-	0.1
HCM Control Delay (s)	0	-	-	-	-	11
HCM Lane LOS	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	0	199	212	10	0	6
Future Vol, veh/h	0	199	212	10	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	216	230	11	0	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	241	0	-	0	452 236
Stage 1	-	-	-	-	236 -
Stage 2	-	-	-	-	216 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1326	-	-	-	565 803
Stage 1	-	-	-	-	803 -
Stage 2	-	-	-	-	820 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1326	-	-	-	565 803
Mov Cap-2 Maneuver	-	-	-	-	565 -
Stage 1	-	-	-	-	803 -
Stage 2	-	-	-	-	820 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1326	-	-	-	803
HCM Lane V/C Ratio	-	-	-	-	0.008
HCM Control Delay (s)	0	-	-	-	9.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings  
17: Menifee Rd. & Scott Rd.

Discovery Village (JN:14073)  
12/07/2021

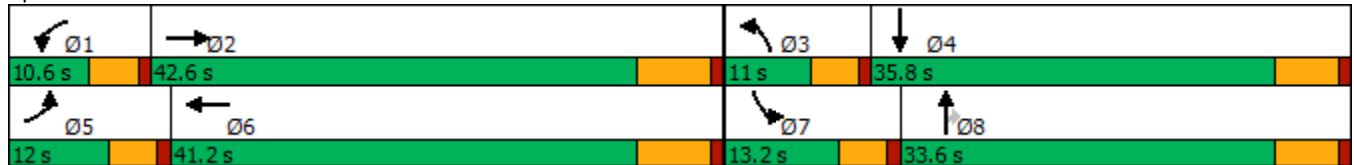


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↙	↕	↙	↕	↙	↕	↗	↙	↕
Traffic Volume (vph)	304	993	159	969	275	495	259	107	222
Future Volume (vph)	304	993	159	969	275	495	259	107	222
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	5	2	1	6	3	8		7	4
Permitted Phases							8		
Detector Phase	5	2	1	6	3	8	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	10.6	15.8	15.8	10.6	35.8
Total Split (s)	12.0	42.6	10.6	41.2	11.0	33.6	33.6	13.2	35.8
Total Split (%)	12.0%	42.6%	10.6%	41.2%	11.0%	33.6%	33.6%	13.2%	35.8%
Yellow Time (s)	3.6	5.5	3.6	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	None	None	None	None	None

Intersection Summary























Cycle Length: 100  
 Actuated Cycle Length: 99.8  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Menifee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

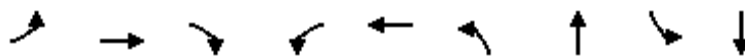
Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	993	365	159	969	149	275	495	259	107	222	133
Future Volume (veh/h)	304	993	365	159	969	149	275	495	259	107	222	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	310	1013	361	162	989	146	281	505	205	109	227	117
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	936	330	108	1089	161	115	525	440	136	340	175
Arrive On Green	0.07	0.36	0.36	0.06	0.35	0.35	0.06	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1781	2566	904	1781	3106	458	1781	1870	1565	1781	1163	599
Grp Volume(v), veh/h	310	698	676	162	565	570	281	505	205	109	0	344
Grp Sat Flow(s),veh/h/ln	1781	1777	1693	1781	1777	1788	1781	1870	1565	1781	0	1762
Q Serve(g_s), s	7.4	36.1	36.1	6.0	30.0	30.1	6.4	26.3	10.7	6.0	0.0	17.0
Cycle Q Clear(g_c), s	7.4	36.1	36.1	6.0	30.0	30.1	6.4	26.3	10.7	6.0	0.0	17.0
Prop In Lane	1.00		0.53	1.00		0.26	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	133	648	618	108	623	627	115	525	440	136	0	516
V/C Ratio(X)	2.33	1.08	1.09	1.50	0.91	0.91	2.44	0.96	0.47	0.80	0.00	0.67
Avail Cap(c_a), veh/h	133	648	618	108	623	627	115	525	440	155	0	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	31.4	31.4	46.5	30.6	30.6	46.3	35.1	29.4	45.0	0.0	30.8
Incr Delay (d2), s/veh	620.2	57.9	64.8	267.2	19.4	19.4	673.3	30.5	2.9	22.6	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.0	24.1	24.2	10.5	14.8	14.9	24.3	15.7	4.2	3.4	0.0	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	666.0	89.3	96.2	313.7	50.0	50.0	719.6	65.6	32.4	67.6	0.0	36.7
LnGrp LOS	F	F	F	F	D	D	F	E	C	E	A	D
Approach Vol, veh/h		1684			1297			991			453	
Approach Delay, s/veh		198.2			82.9			244.1			44.1	
Approach LOS		F			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	42.6	11.0	34.8	12.0	41.2	12.2	33.6				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	6.0	36.1	6.4	30.0	7.4	34.7	8.6	27.8				
Max Q Clear Time (g_c+I1), s	8.0	38.1	8.4	19.0	9.4	32.1	8.0	28.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.0	2.4	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				158.9								
HCM 6th LOS				F								



Timings  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/07/2021

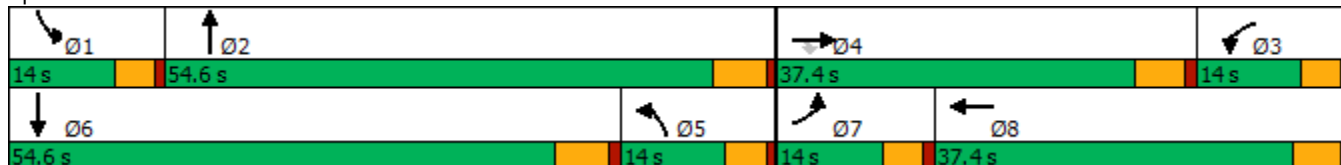


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	107	111	89	152	332	130	870	88	577
Future Volume (vph)	107	111	89	152	332	130	870	88	577
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	44.8	14.0	53.5
Total Split (s)	14.0	37.4	37.4	14.0	37.4	14.0	54.6	14.0	54.6
Total Split (%)	11.7%	31.2%	31.2%	11.7%	31.2%	11.7%	45.5%	11.7%	45.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 110.7  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Whitewood Rd./Menifee Rd. & Keller Rd.



HCM 6th Signalized Intersection Summary  
18: Whitewood Rd./Menifee Rd. & Keller Rd.

Discovery Village (JN:14073)  
12/07/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	111	89	152	332	101	130	870	184	88	577	71
Future Volume (veh/h)	107	111	89	152	332	101	130	870	184	88	577	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	121	75	165	361	107	141	946	198	96	627	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	213	177	305	572	167	335	1265	264	122	971	113
Arrive On Green	0.08	0.11	0.11	0.17	0.21	0.21	0.19	0.43	0.43	0.07	0.30	0.30
Sat Flow, veh/h	1781	1870	1551	1781	2699	788	1781	2913	609	1781	3207	373
Grp Volume(v), veh/h	116	121	75	165	236	232	141	577	567	96	347	353
Grp Sat Flow(s),veh/h/ln	1781	1870	1551	1781	1777	1711	1781	1777	1745	1781	1777	1803
Q Serve(g_s), s	6.4	6.1	4.5	8.4	12.0	12.4	7.0	27.1	27.2	5.3	16.9	16.9
Cycle Q Clear(g_c), s	6.4	6.1	4.5	8.4	12.0	12.4	7.0	27.1	27.2	5.3	16.9	16.9
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.35	1.00		0.21
Lane Grp Cap(c), veh/h	144	213	177	305	377	363	335	772	758	122	538	546
V/C Ratio(X)	0.80	0.57	0.42	0.54	0.63	0.64	0.42	0.75	0.75	0.79	0.65	0.65
Avail Cap(c_a), veh/h	168	600	497	305	570	548	335	869	853	168	869	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	41.9	41.2	37.8	35.7	35.9	35.7	23.6	23.7	45.8	30.2	30.2
Incr Delay (d2), s/veh	21.4	10.5	7.3	1.9	7.6	8.4	0.8	5.8	6.0	15.6	4.9	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.4	2.0	3.7	5.8	5.8	3.0	11.6	11.4	2.8	7.5	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.5	52.4	48.5	39.7	43.4	44.3	36.6	29.5	29.6	61.4	35.1	35.1
LnGrp LOS	E	D	D	D	D	D	D	C	C	E	D	D
Approach Vol, veh/h		312			633			1285			796	
Approach Delay, s/veh		56.7			42.8			30.3			38.2	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	49.2	22.5	16.8	24.6	36.0	12.7	26.6				
Change Period (Y+Rc), s	4.6	5.8	5.4	* 5.4	5.8	* 5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.4	48.8	9.4	* 32	9.4	* 49	9.4	32.0				
Max Q Clear Time (g_c+I1), s	7.3	29.2	10.4	8.1	9.0	18.9	8.4	14.4				
Green Ext Time (p_c), s	0.0	14.1	0.0	2.7	0.0	11.1	0.0	6.5				

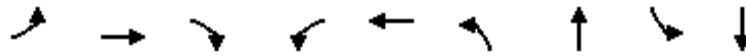
Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
19: Whitewood Rd. & Baxter Rd.

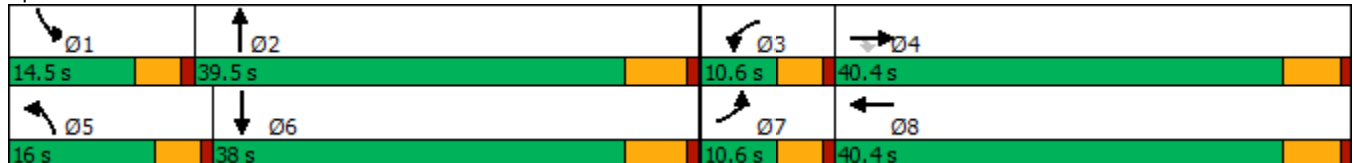


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↙	↑	↘	↙	↑↓	↙	↑↓	↙	↑↓
Traffic Volume (vph)	628	33	296	66	20	350	1214	13	856
Future Volume (vph)	628	33	296	66	20	350	1214	13	856
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	40.4	10.6	40.4	16.0	39.5	14.5	38.0
Total Split (%)	10.1%	38.5%	38.5%	10.1%	38.5%	15.2%	37.6%	13.8%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary























Cycle Length: 105  
 Actuated Cycle Length: 80  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 03/28/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	628	33	296	66	20	16	350	1214	59	13	856	273
Future Volume (veh/h)	628	33	296	66	20	16	350	1214	59	13	856	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	654	34	231	69	21	17	365	1265	57	14	892	283
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	344	288	102	334	240	244	1707	77	36	996	315
Arrive On Green	0.07	0.18	0.18	0.06	0.17	0.17	0.14	0.49	0.49	0.02	0.38	0.38
Sat Flow, veh/h	1781	1870	1564	1781	1974	1415	1781	3459	156	1781	2645	837
Grp Volume(v), veh/h	654	34	231	69	19	19	365	649	673	14	598	577
Grp Sat Flow(s),veh/h/ln	1781	1870	1564	1781	1777	1613	1781	1777	1838	1781	1777	1706
Q Serve(g_s), s	6.0	1.3	11.8	3.2	0.7	0.8	11.4	24.3	24.3	0.6	26.3	26.5
Cycle Q Clear(g_c), s	6.0	1.3	11.8	3.2	0.7	0.8	11.4	24.3	24.3	0.6	26.3	26.5
Prop In Lane	1.00		1.00	1.00		0.88	1.00		0.08	1.00		0.49
Lane Grp Cap(c), veh/h	128	344	288	102	301	273	244	877	907	36	669	642
V/C Ratio(X)	5.09	0.10	0.80	0.67	0.06	0.07	1.50	0.74	0.74	0.39	0.89	0.90
Avail Cap(c_a), veh/h	128	787	658	128	747	678	244	877	907	212	688	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	28.2	32.5	38.4	29.0	29.1	35.9	16.8	16.8	40.3	24.4	24.4
Incr Delay (d2), s/veh	1858.5	0.2	7.0	9.4	0.1	0.1	243.4	3.7	3.7	7.0	14.5	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	68.8	0.5	4.8	1.6	0.3	0.3	21.1	9.2	9.6	0.3	12.5	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1897.1	28.4	39.5	47.8	29.1	29.2	279.3	20.6	20.5	47.2	38.9	39.9
LnGrp LOS	F	C	D	D	C	C	F	C	C	D	D	D
Approach Vol, veh/h		919			107			1687			1189	
Approach Delay, s/veh		1361.0			41.2			76.5			39.5	
Approach LOS		F			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	46.9	9.4	20.7	16.0	37.1	10.6	19.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	11.4	32.2	6.0	35.0				
Max Q Clear Time (g_c+I1), s	2.6	26.3	5.2	13.8	13.4	28.5	8.0	2.8				
Green Ext Time (p_c), s	0.0	5.6	0.0	1.3	0.0	2.8	0.0	0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			366.8									
HCM 6th LOS			F									

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	24	0	1623	1177	41
Future Vol, veh/h	0	24	0	1623	1177	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	0	1764	1279	45

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	662	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	404	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	404	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 404	-	-
HCM Lane V/C Ratio	- 0.065	-	-
HCM Control Delay (s)	- 14.5	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.2	-	-

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	5	0	199	15	0	15	222	1608	15	15	1187	0
Future Vol, veh/h	5	0	199	15	0	15	222	1608	15	15	1187	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	209	16	0	16	234	1693	16	16	1249	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2596	3458	625	2826	3450	855	1249	0	0	1709	0	0
Stage 1	1281	1281	-	2169	2169	-	-	-	-	-	-	-
Stage 2	1315	2177	-	657	1281	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	4.6	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	4.4	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	5	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	2	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	12	7	428	96	7	302	553	-	-	368	-	-
Stage 1	175	235	-	219	85	-	-	-	-	-	-	-
Stage 2	167	84	-	863	235	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	7	4	428	32	4	302	553	-	-	368	-	-
Mov Cap-2 Maneuver	56	30	-	103	~-7	-	-	-	-	-	-	-
Stage 1	101	225	-	126	49	-	-	-	-	-	-	-
Stage 2	91	48	-	421	225	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.6	34.3	1.9	0.2
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	553	-	-	368	154	368	-
HCM Lane V/C Ratio	0.423	-	-	0.584	0.205	0.043	-
HCM Control Delay (s)	16.2	-	-	27.6	34.3	15.2	-
HCM Lane LOS	C	-	-	D	D	C	-
HCM 95th %tile Q(veh)	2.1	-	-	3.5	0.7	0.1	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
12/07/2021

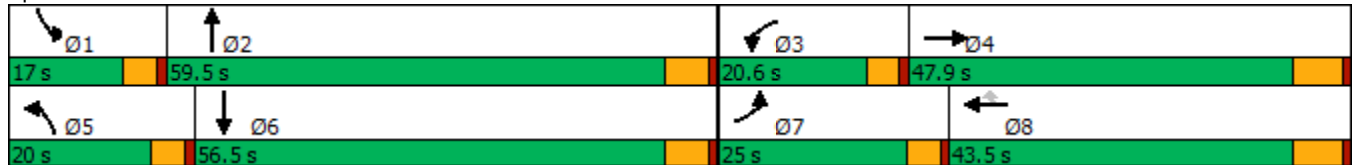


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↕↕↕	↔↔	↕↕↕	↔	↔	↕↕	↔	↕↕
Traffic Volume (vph)	855	1206	471	899	219	327	1227	349	818
Future Volume (vph)	855	1206	471	899	219	327	1227	349	818
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	10.6	43.5	43.5	10.6	52.8	10.6	45.8
Total Split (s)	25.0	47.9	20.6	43.5	43.5	20.0	59.5	17.0	56.5
Total Split (%)	17.2%	33.0%	14.2%	30.0%	30.0%	13.8%	41.0%	11.7%	39.0%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None

Intersection Summary































Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 12/07/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 		 	 	
Traffic Volume (veh/h)	855	1206	418	471	899	219	327	1227	473	349	818	628
Future Volume (veh/h)	855	1206	418	471	899	219	327	1227	473	349	818	628
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	972	1370	440	535	1022	231	372	1394	358	397	930	709
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	1094	349	381	1303	403	189	1043	261	152	689	494
Arrive On Green	0.14	0.29	0.29	0.11	0.26	0.26	0.11	0.37	0.37	0.09	0.35	0.35
Sat Flow, veh/h	3456	3830	1223	3456	5106	1578	1781	2817	704	1781	1970	1412
Grp Volume(v), veh/h	972	1217	593	535	1022	231	372	865	887	397	833	806
Grp Sat Flow(s),veh/h/ln	1728	1702	1649	1728	1702	1578	1781	1777	1744	1781	1777	1605
Q Serve(g_s), s	20.4	41.4	41.4	16.0	27.0	18.5	15.4	53.7	53.7	12.4	50.7	50.7
Cycle Q Clear(g_c), s	20.4	41.4	41.4	16.0	27.0	18.5	15.4	53.7	53.7	12.4	50.7	50.7
Prop In Lane	1.00		0.74	1.00		1.00	1.00		0.40	1.00		0.88
Lane Grp Cap(c), veh/h	486	972	471	381	1303	403	189	658	646	152	621	561
V/C Ratio(X)	2.00	1.25	1.26	1.40	0.78	0.57	1.97	1.31	1.37	2.61	1.34	1.44
Avail Cap(c_a), veh/h	486	972	471	381	1303	403	189	658	646	152	621	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	51.8	51.8	64.5	50.3	47.1	64.8	45.7	45.7	66.3	47.2	47.2
Incr Delay (d2), s/veh	457.0	121.9	133.4	196.5	3.7	3.2	453.4	152.0	177.9	741.5	164.0	206.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	39.6	33.6	34.1	17.3	11.7	7.5	30.7	50.5	54.3	36.9	49.9	51.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	519.3	173.7	185.2	261.0	54.0	50.3	518.2	197.7	223.6	807.8	211.2	253.6
LnGrp LOS	F	F	F	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		2782			1788			2124			2036	
Approach Delay, s/veh		296.9			115.5			264.6			344.3	
Approach LOS		F			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	59.5	20.6	47.9	20.0	56.5	25.0	43.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	12.4	53.7	16.0	41.4	15.4	50.7	20.4	37.0				
Max Q Clear Time (g_c+I1), s	14.4	55.7	18.0	43.4	17.4	52.7	22.4	29.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			262.9									
HCM 6th LOS			F									
<b>Notes</b>												
User approved changes to right turn type.												



Timings  
23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

Discovery Village (JN:14073)  
12/07/2021

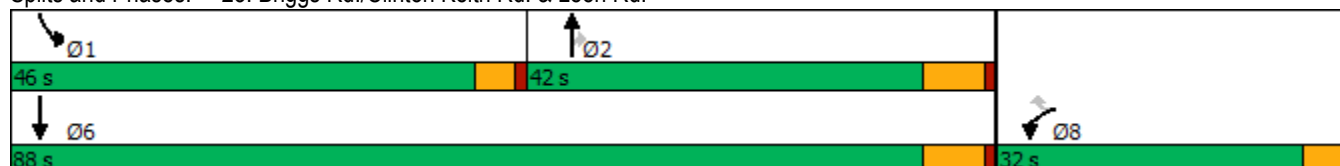


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔	↗	↕↕	↗	↔↔	↕↕
Traffic Volume (vph)	236	629	588	224	856	847
Future Volume (vph)	236	629	588	224	856	847
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	28.5	28.5	9.6	16.5
Total Split (s)	32.0	32.0	42.0	42.0	46.0	88.0
Total Split (%)	26.7%	26.7%	35.0%	35.0%	38.3%	73.3%
Yellow Time (s)	3.6	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	6.5	6.5	4.6	6.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
Actuated Cycle Length: 82.3  
Natural Cycle: 80  
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.



HCM 6th Signalized Intersection Summary  
 23: Briggs Rd./Clinton Keith Rd. & Leon Rd.

Discovery Village (JN:14073)  
 12/07/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶↶	↶	↕↕	↷	↶↶	↕↕
Traffic Volume (veh/h)	236	629	588	224	856	847
Future Volume (veh/h)	236	629	588	224	856	847
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	662	619	236	901	892
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	457	814	862	384	1023	2127
Arrive On Green	0.26	0.26	0.24	0.24	0.30	0.60
Sat Flow, veh/h	1781	3170	3647	1585	3456	3647
Grp Volume(v), veh/h	248	662	619	236	901	892
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1728	1777
Q Serve(g_s), s	9.2	15.0	12.2	10.2	19.0	10.3
Cycle Q Clear(g_c), s	9.2	15.0	12.2	10.2	19.0	10.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	457	814	862	384	1023	2127
V/C Ratio(X)	0.54	0.81	0.72	0.61	0.88	0.42
Avail Cap(c_a), veh/h	637	1133	1646	734	1867	3779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	26.8	26.6	25.8	25.7	8.2
Incr Delay (d2), s/veh	1.0	3.2	1.1	1.6	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	5.3	4.7	3.5	6.8	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.6	30.0	27.8	27.4	26.7	8.4
LnGrp LOS	C	C	C	C	C	A
Approach Vol, veh/h	910		855			1793
Approach Delay, s/veh	28.8		27.7			17.6
Approach LOS	C		C			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	27.3	25.1			52.4	24.3
Change Period (Y+Rc), s	4.6	6.5			6.5	4.6
Max Green Setting (Gmax), s	41.4	35.5			81.5	27.4
Max Q Clear Time (g_c+I1), s	21.0	14.2			12.3	17.0
Green Ext Time (p_c), s	1.7	4.3			6.4	2.6

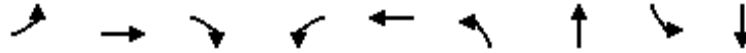
Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
24: Max Gilliss Blvd & Leon Rd.

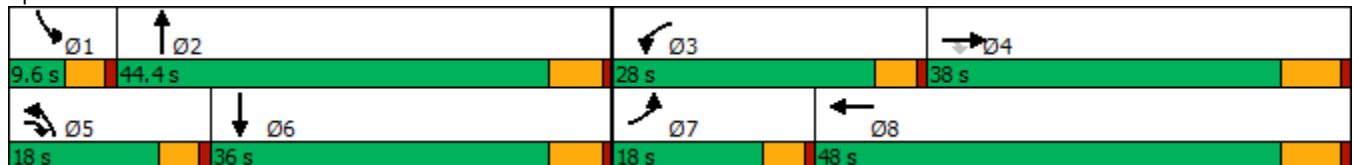


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖↗	↑↑	↖↗	↑↑
Traffic Volume (vph)	225	1029	607	712	700	393	551	27	639
Future Volume (vph)	225	1029	607	712	700	393	551	27	639
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4								
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	33.5	9.6	9.6	33.5	9.6	34.8	9.6	34.8
Total Split (s)	18.0	38.0	18.0	28.0	48.0	18.0	44.4	9.6	36.0
Total Split (%)	15.0%	31.7%	15.0%	23.3%	40.0%	15.0%	37.0%	8.0%	30.0%
Yellow Time (s)	3.6	5.5	3.6	3.6	5.5	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	4.6	6.5	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None

Intersection Summary































Cycle Length: 120  
 Actuated Cycle Length: 119  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Max Gilliss Blvd & Leon Rd.



HCM 6th Signalized Intersection Summary  
 24: Max Gilliss Blvd & Leon Rd.

Discovery Village (JN:14073)  
 12/07/2021

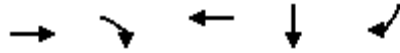
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	225	1029	607	712	700	27	393	551	730	27	639	179
Future Volume (veh/h)	225	1029	607	712	700	27	393	551	730	27	639	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	230	1050	364	727	714	14	401	562	337	28	652	117
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	1005	607	711	1416	28	407	707	424	91	722	129
Arrive On Green	0.12	0.40	0.40	0.30	0.58	0.58	0.17	0.48	0.48	0.04	0.35	0.35
Sat Flow, veh/h	3563	3741	1585	3563	3656	72	3563	2191	1313	3563	3088	553
Grp Volume(v), veh/h	230	1050	364	727	365	363	401	480	419	28	395	374
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1857	1781	1870	1634	1781	1870	1771
Q Serve(g_s), s	7.4	31.5	20.7	23.4	13.6	13.6	13.1	25.2	25.2	0.9	23.5	23.6
Cycle Q Clear(g_c), s	7.4	31.5	20.7	23.4	13.6	13.6	13.1	25.2	25.2	0.9	23.5	23.6
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.80	1.00		0.31
Lane Grp Cap(c), veh/h	289	1005	607	711	724	719	407	603	527	91	437	414
V/C Ratio(X)	0.80	1.04	0.60	1.02	0.50	0.50	0.98	0.79	0.80	0.31	0.90	0.90
Avail Cap(c_a), veh/h	407	1005	607	711	724	719	407	616	538	152	482	456
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	35.0	23.4	41.1	17.9	17.9	48.4	27.0	27.0	55.4	36.8	36.8
Incr Delay (d2), s/veh	4.6	40.7	1.6	39.4	0.6	0.6	40.3	7.0	8.0	0.7	19.0	20.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	17.0	6.2	12.6	4.8	4.7	7.6	10.1	9.0	0.4	11.4	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	75.6	25.0	80.5	18.4	18.4	88.7	34.0	35.0	56.1	55.8	56.9
LnGrp LOS	E	F	C	F	B	B	F	C	C	E	E	E
Approach Vol, veh/h		1644			1455			1300			797	
Approach Delay, s/veh		61.6			49.4			51.2			56.3	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	43.6	28.0	38.0	18.0	33.2	14.1	51.9				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	5.0	38.6	23.4	31.5	13.4	30.2	13.4	41.5				
Max Q Clear Time (g_c+I1), s	2.9	27.2	25.4	33.5	15.1	25.6	9.4	15.6				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0	0.0	1.8	0.1	4.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			54.8									
HCM 6th LOS			D									

**APPENDIX 6.3:**

**HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING  
ANALYSIS WORKSHEETS**

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## 4: I-215 SB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2403	911	2301	474	597
v/c Ratio	0.79	0.70	0.88dr	0.91	0.68
Control Delay	19.4	4.1	14.3	60.6	33.4
Queue Delay	0.1	0.0	0.0	0.1	0.0
Total Delay	19.5	4.1	14.3	60.7	33.4
Queue Length 50th (ft)	461	0	194	314	177
Queue Length 95th (ft)	529	51	m253	#494	245
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	3057	1299	2955	551	924
Starvation Cap Reductn	0	0	14	0	0
Spillback Cap Reductn	50	0	0	1	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.70	0.78	0.86	0.65

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1777	1107	1833	836	781
v/c Ratio	0.75	0.84	0.77	1.15	1.21
Control Delay	17.6	12.4	26.9	111.7	137.5
Queue Delay	0.0	7.2	0.0	0.0	0.0
Total Delay	17.6	19.5	26.9	111.7	137.5
Queue Length 50th (ft)	338	584	371	~714	~729
Queue Length 95th (ft)	332	742	430	#956	#981
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	2459	1328	2459	730	647
Starvation Cap Reductn	0	187	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.72	0.97	0.75	1.15	1.21

#### Intersection Summary

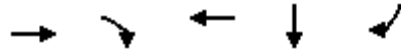
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.





Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2318	832	2910	489	877
v/c Ratio	0.78	0.66	1.01	0.89	0.99
Control Delay	19.9	3.7	21.2	55.8	65.3
Queue Delay	0.0	0.0	4.9	0.0	0.0
Total Delay	19.9	3.7	26.2	55.8	65.3
Queue Length 50th (ft)	431	0	~369	327	340
Queue Length 95th (ft)	495	50	m267	#518	#493
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	2967	1252	2894	551	885
Starvation Cap Reductn	0	0	46	0	0
Spillback Cap Reductn	3	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.78	0.66	1.02	0.89	0.99

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

## 5: I-215 NB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1860	929	1791	1278	1085
v/c Ratio	1.07	0.85	1.03	1.18	1.00
Control Delay	66.8	8.6	67.7	113.2	50.7
Queue Delay	0.0	8.7	0.0	0.0	0.0
Total Delay	66.8	17.3	67.7	113.2	50.7
Queue Length 50th (ft)	~486	12	~453	~1082	718
Queue Length 95th (ft)	#566	m94	#540	#1339	#1049
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	1737	1099	1737	1087	1087
Starvation Cap Reductn	0	147	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.07	0.98	1.03	1.18	1.00

## Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

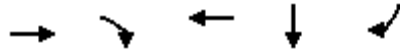
m Volume for 95th percentile queue is metered by upstream signal.

**APPENDIX 6.4:**

**HORIZON YEAR (2040) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS  
WORKSHEETS**

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## 4: I-215 SB Ramps &amp; Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2483	911	2413	518	597
v/c Ratio	0.83	0.71	0.95dr	0.96	0.66
Control Delay	21.4	4.2	15.8	67.8	32.9
Queue Delay	0.1	0.0	0.0	0.2	0.0
Total Delay	21.5	4.2	15.8	68.0	32.9
Queue Length 50th (ft)	491	0	236	355	181
Queue Length 95th (ft)	564	51	m288	#564	249
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	2997	1292	2902	551	917
Starvation Cap Reductn	0	0	15	0	0
Spillback Cap Reductn	41	0	0	1	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.71	0.84	0.94	0.65

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1903	1107	1948	874	829
v/c Ratio	0.79	0.84	0.81	1.22	1.31
Control Delay	17.2	10.9	27.7	143.4	179.5
Queue Delay	0.0	8.1	0.0	0.0	0.0
Total Delay	17.2	19.0	27.7	143.4	179.5
Queue Length 50th (ft)	384	568	408	~775	~807
Queue Length 95th (ft)	m368	m710	473	#1019	#1062
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	2459	1328	2459	714	633
Starvation Cap Reductn	0	194	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.98	0.79	1.22	1.31

#### Intersection Summary

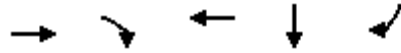
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	2380	832	3073	530	877
v/c Ratio	0.80	0.66	1.06	0.96	0.99
Control Delay	20.6	3.7	46.8	68.2	65.3
Queue Delay	0.0	0.0	7.3	0.0	0.0
Total Delay	20.6	3.7	54.1	68.2	65.3
Queue Length 50th (ft)	453	0	~467	367	340
Queue Length 95th (ft)	520	50	m267	#584	#493
Internal Link Dist (ft)	3704		655	1955	
Turn Bay Length (ft)		415			460
Base Capacity (vph)	2967	1252	2891	551	885
Starvation Cap Reductn	0	0	46	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.66	1.08	0.96	0.99

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

5: I-215 NB Ramps & Clinton Keith Rd.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1966	929	1954	1285	1153
v/c Ratio	1.15	0.87	1.14	1.17	1.05
Control Delay	99.0	9.6	107.3	112.0	66.1
Queue Delay	0.0	13.1	0.0	0.0	0.0
Total Delay	99.0	22.7	107.3	112.0	66.1
Queue Length 50th (ft)	~538	18	~539	~1086	~891
Queue Length 95th (ft)	m#618	m#94	#627	#1343	#1146
Internal Link Dist (ft)	655		3090	1627	
Turn Bay Length (ft)					1000
Base Capacity (vph)	1711	1062	1711	1095	1095
Starvation Cap Reductn	0	134	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.15	1.00	1.14	1.17	1.05

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



**APPENDIX 6.5:**

**HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT  
ANALYSIS**

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**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)**

Traffic Conditions = **HY (2040) NP Conditions - Weekday PM Peak Hour**

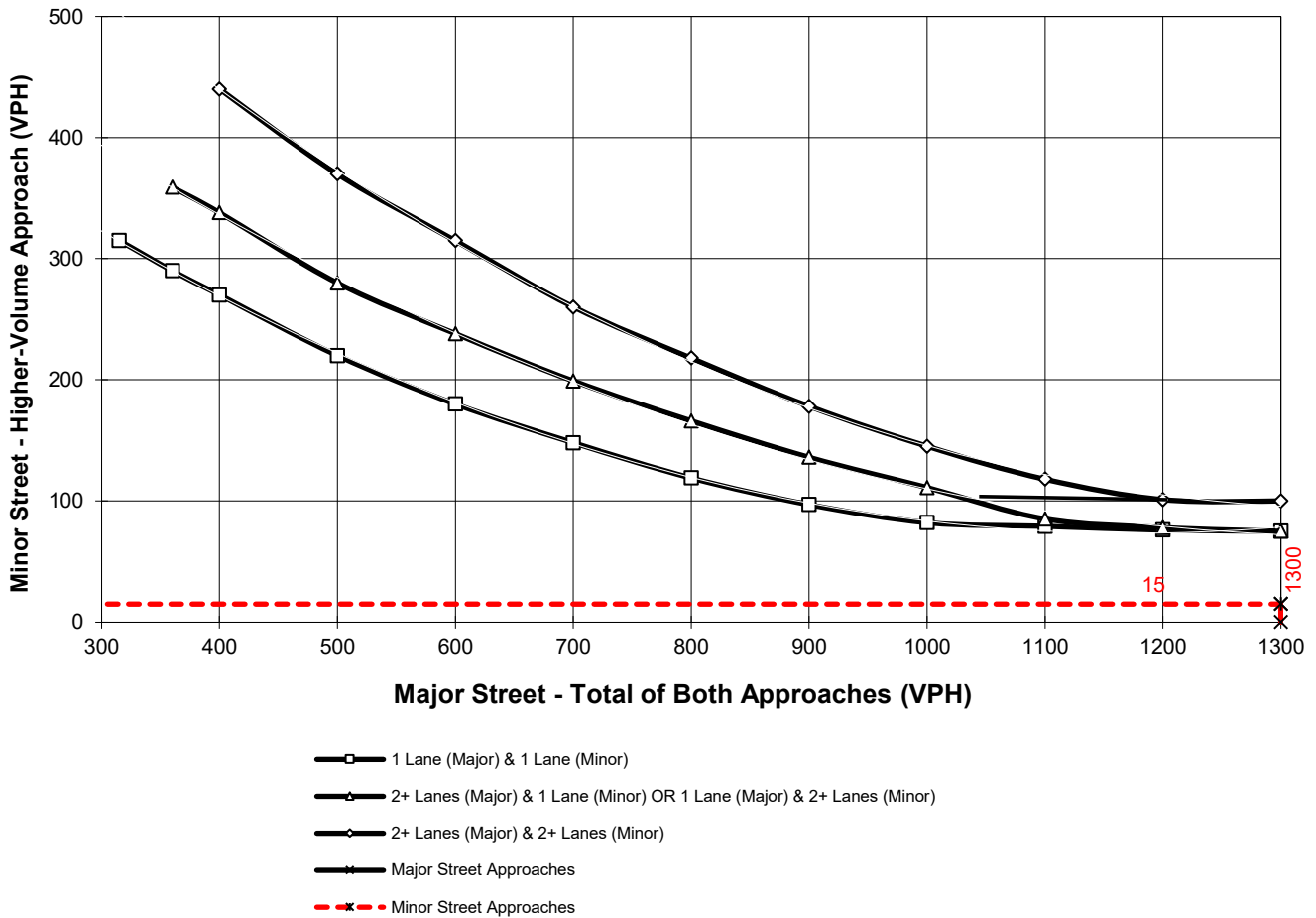
Major Street Name = **Whitewood Road**

Total of Both Approaches (VPH) = **2758**  
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Running Rabbit Road**

High Volume Approach (VPH) = **15**  
 Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane



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**APPENDIX 6.6:**

**HORIZON YEAR (2040) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT  
ANALYSIS**

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### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Antelope Road</u>					Critical Approach Speed (Major)	<u>30</u> mph
Minor Street: <u>Street A</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =		<u>1</u>	lane	Minor Street Approach Lanes =		<u>1</u> lane
Major Street Future ADT =		<u>352</u>	vpd	Minor Street Future ADT =		<u>352</u> vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						<input type="checkbox"/>
						or
In built up area of isolated community of < 10,000 population .....						<input type="checkbox"/>

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
<b>XX</b>					
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1 <b>352</b>	1 <b>352</b>	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1 <b>352</b>	1 <b>352</b>	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	<b>XX</b>				
No one condition satisfied, but following conditions fulfilled 80% of more .....					
	<u>A</u>				
	<b>4%</b>				
	<u>B</u>				
	<b>3%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Warm Springs Road</u>					Critical Approach Speed (Major)	<u>30</u> mph
Minor Street: <u>Street C</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =			<u>1</u>	lane	Minor Street Approach Lanes:	<u>1</u> lane
Major Street Future ADT =			<u>1,992</u>	vpd	Minor Street Future ADT =	<u>1,014</u> vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						<input type="checkbox"/>
						or
In built up area of isolated community of < 10,000 population .....						<input type="checkbox"/>

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements			
<b>XX</b>		<b>EADT</b>			
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>1,992</b>	1 <b>1,014</b>	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>1,992</b>	1 <b>1,014</b>	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>	<u>Not Satisfied</u>	80%		80%	
No one condition satisfied, but following conditions fulfilled 80% of more .....	<b>XX</b>				
	<b>A</b>				
	<b>25%</b>				
	<b>B</b>				
	<b>17%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.





### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Warm Springs Road</u>					Critical Approach Speed (Major)	<u>30</u> mph
Minor Street: <u>Running Rabbit Road</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =			<u>1</u>	lane	Minor Street Approach Lanes:	<u>1</u> lane
Major Street Future ADT =			<u>1,283</u>	vpd	Minor Street Future ADT =	<u>1,283</u> vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						<input type="checkbox"/>
						or
In built up area of isolated community of < 10,000 population .....						<input type="checkbox"/>

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
<b>XX</b>					
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>1,283</b>	1 <b>1,283</b>	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1 <b>1,283</b>	1 <b>1,283</b>	12,000	8,400	1,200 *	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>	<u>Not Satisfied</u>	80%		80%	
No one condition satisfied, but following conditions fulfilled 80% of more .....	<b>XX</b>				
	<b>A</b>				
	<b>16%</b>				
	<b>B</b>				
	<b>11%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Runng Rabbit Rd.</u>					Critical Approach Speed (Major)	<u>25</u> mph
Minor Street: <u>Street G</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =			<u>1</u> lane		Minor Street Approach Lanes:	<u>1</u> lane
Major Street Future ADT =			<u>3,460</u> vpd		Minor Street Future ADT =	<u>895</u> vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						
						or
In built up area of isolated community of < 10,000 population .....						

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements			
<b>XX</b>		EADT			
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1 3,460</u>	<u>1 895</u>	8,000	5,600	2,400	1,680
<u>2+</u>	<u>1</u>	9,600	6,720	2,400	1,680
<u>2+</u>	<u>2+</u>	9,600	6,720	3,200	2,240
<u>1</u>	<u>2+</u>	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
	<b>XX</b>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1 3,460</u>	<u>1 895</u>	12,000	8,400	1,200	850
<u>2+</u>	<u>1</u>	14,400	10,080	1,200	850
<u>2+</u>	<u>2+</u>	14,400	10,080	1,600	1,120
<u>1</u>	<u>2+</u>	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>	<u>Not Satisfied</u>	80%		80%	
No one condition satisfied, but following conditions fulfilled 80% of more .....	<b>XX</b>				
	<u>A</u>				
	<b>37%</b>				
	<u>B</u>				
	<b>29%</b>				

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>MT</u>	TRAFFIC CONDITIONS	<u>(2027) WP Condit</u>
Jurisdiction: <u>City of Murrieta</u>				CHK <u>MT</u>		DATE <u>11/05/21</u>
Major Street: <u>Runngg Rabbit Rd.</u>					Critical Approach Speed (Major)	<u>25</u> mph
Minor Street: <u>Street H</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes =		<u>1</u>	lane	Minor Street Approach Lanes:	<u>1</u>	lane
Major Street Future ADT =		<u>4,353</u>	vpd	Minor Street Future ADT =	<u>89</u>	vpd
Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .....						
						or
In built up area of isolated community of < 10,000 population .....						
<b>URBAN (U)</b>						

**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements			
<b>XX</b>		<b>EADT</b>			
<b>CONDITION A - Minimum Vehicular Volume</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>		(Total of Both Approaches)		(One Direction Only)	
<u>Not Satisfied</u>		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1 4,353</u>	<u>1 89</u>	8,000	5,600	2,400	1,680
<u>2 +</u>	<u>1</u>	9,600	6,720	2,400	1,680
<u>2 +</u>	<u>2 +</u>	9,600	6,720	3,200	2,240
<u>1</u>	<u>2 +</u>	8,000	5,600	3,200	2,240
<b>CONDITION B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>		(Total of Both Approaches)		(One Direction Only)	
<u>Not Satisfied</u>		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
<b>XX</b>					
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1 4,353</u>	<u>1 89</u>	12,000	8,400	1,200	850
<u>2 +</u>	<u>1</u>	14,400	10,080	1,200	850
<u>2 +</u>	<u>2 +</u>	14,400	10,080	1,600	1,120
<u>1</u>	<u>2 +</u>	12,000	8,400	1,600	1,120
<b>Combination of CONDITIONS A + B</b>		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>		80%		80%	
<u>Not Satisfied</u>					
<b>XX</b>					
No one condition satisfied, but following conditions fulfilled 80% of more .....					
	<u>A</u>	<u>B</u>			
	<b>4%</b>	<b>7%</b>			

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **HY (2040) WP Conditions - Weekday PM Peak Hour**

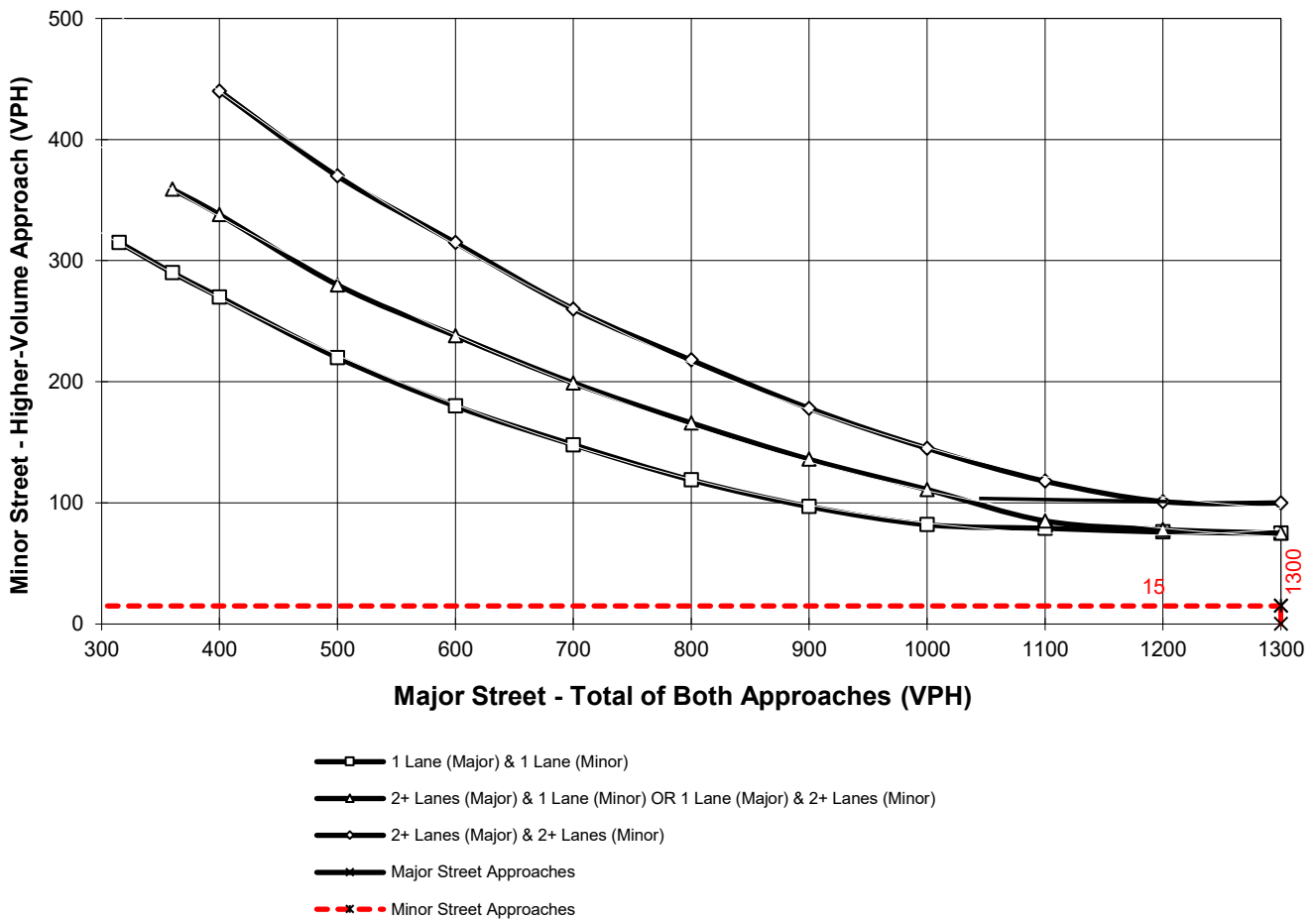
Major Street Name = **Whitewood Road**

Total of Both Approaches (VPH) = **3047**  
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Running Rabbit Road**

High Volume Approach (VPH) = **15**  
 Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



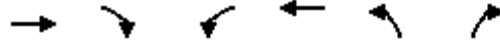
\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

**APPENDIX 6.7:**

**HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS  
ANALYSIS WORKSHEETS WITH IMPROVEMENTS**

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Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

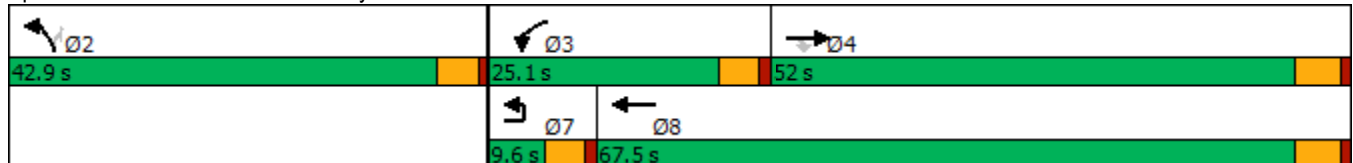


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑↑	↑	↵	↑↑↑	↵	↵	
Traffic Volume (vph)	1501	626	165	1891	334	94	
Future Volume (vph)	1501	626	165	1891	334	94	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	52.0	52.0	25.1	67.5	42.9	42.9	9.6
Total Split (%)	43.3%	43.3%	20.9%	56.3%	35.8%	35.8%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 98.7  
 Natural Cycle: 55  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↱
Traffic Volume (veh/h)	0	1501	626	165	1891	334	94
Future Volume (veh/h)	0	1501	626	165	1891	334	94
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		1564	518	172	1970	348	89
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2408	748	211	3309	408	363
Arrive On Green		0.47	0.47	0.12	0.65	0.23	0.23
Sat Flow, veh/h		5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h		1564	518	172	1970	348	89
Grp Sat Flow(s),veh/h/ln		1702	1585	1781	1702	1781	1585
Q Serve(g_s), s		18.6	20.4	7.5	17.6	14.9	3.7
Cycle Q Clear(g_c), s		18.6	20.4	7.5	17.6	14.9	3.7
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2408	748	211	3309	408	363
V/C Ratio(X)		0.65	0.69	0.81	0.60	0.85	0.25
Avail Cap(c_a), veh/h		3007	934	459	4001	854	760
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		16.0	16.5	34.2	8.0	29.4	25.1
Incr Delay (d2), s/veh		0.3	1.6	2.9	0.2	5.1	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		6.5	6.9	3.3	5.1	6.7	1.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		16.4	18.1	37.1	8.2	34.6	25.4
LnGrp LOS		B	B	D	A	C	C
Approach Vol, veh/h		2082			2142	437	
Approach Delay, s/veh		16.8			10.5	32.7	
Approach LOS		B			B	C	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		22.9	14.0	42.7			56.7
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 38	20.5	46.9			62.4
Max Q Clear Time (g_c+I1), s		16.9	9.5	22.4			19.6
Green Ext Time (p_c), s		1.3	0.2	15.1			23.2

Intersection Summary

HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

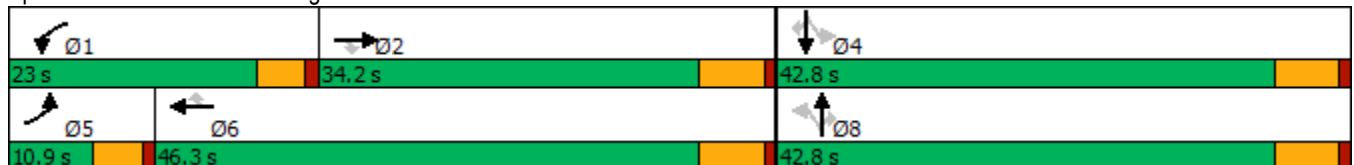
12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1179	157	468	1437	106	154	111	598	190	76	63
Future Volume (vph)	34	1179	157	468	1437	106	154	111	598	190	76	63
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	34.8	34.8	42.8	42.8	42.8	11.8	11.8	11.8
Total Split (s)	10.9	34.2	34.2	23.0	46.3	46.3	42.8	42.8	42.8	42.8	42.8	42.8
Total Split (%)	10.9%	34.2%	34.2%	23.0%	46.3%	46.3%	42.8%	42.8%	42.8%	42.8%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 86.6  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated






























Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



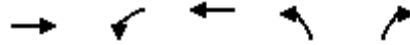
HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (veh/h)	34	1179	157	468	1437	106	154	111	598	190	76	63
Future Volume (veh/h)	34	1179	157	468	1437	106	154	111	598	190	76	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1228	138	488	1497	85	160	116	482	198	79	61
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	1582	434	351	2471	680	476	651	540	326	651	544
Arrive On Green	0.04	0.28	0.28	0.20	0.44	0.44	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	5611	1540	1781	5611	1544	1249	1870	1552	818	1870	1564
Grp Volume(v), veh/h	35	1228	138	488	1497	85	160	116	482	198	79	61
Grp Sat Flow(s),veh/h/ln	1781	1870	1540	1781	1870	1544	1249	1870	1552	818	1870	1564
Q Serve(g_s), s	1.8	18.8	6.6	18.4	19.0	3.0	9.4	4.0	27.5	20.8	2.7	2.5
Cycle Q Clear(g_c), s	1.8	18.8	6.6	18.4	19.0	3.0	12.0	4.0	27.5	24.8	2.7	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	1582	434	351	2471	680	476	651	540	326	651	544
V/C Ratio(X)	0.51	0.78	0.32	1.39	0.61	0.13	0.34	0.18	0.89	0.61	0.12	0.11
Avail Cap(c_a), veh/h	120	1705	468	351	2471	680	535	740	614	365	740	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	30.9	26.5	37.5	20.0	15.5	24.8	21.2	28.8	29.8	20.7	20.7
Incr Delay (d2), s/veh	5.8	2.3	0.6	192.9	0.5	0.1	0.5	0.2	14.6	2.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	8.2	2.4	26.3	7.6	1.0	2.8	1.8	12.0	4.2	1.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	33.2	27.0	230.4	20.5	15.6	25.4	21.3	43.4	32.6	20.8	20.8
LnGrp LOS	D	C	C	F	C	B	C	C	D	C	C	C
Approach Vol, veh/h		1401			2070			758			338	
Approach Delay, s/veh		33.0			69.7			36.2			27.7	
Approach LOS		C			E			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	32.1		38.3	8.2	47.0		38.3				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	18.4	28.4		37.0	6.3	40.5		37.0				
Max Q Clear Time (g_c+I1), s	20.4	20.8		26.8	3.8	21.0		29.5				
Green Ext Time (p_c), s	0.0	5.4		1.6	0.0	12.8		2.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				49.8								
HCM 6th LOS				D								

Timings  
3: California Oaks St. & Clinton Keith Rd.



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↵	↑↑↑	↵	↵↵
Traffic Volume (vph)	1925	766	1591	235	631
Future Volume (vph)	1925	766	1591	235	631
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	32.8	10.6	15.8	33.8	10.6
Total Split (s)	51.2	45.0	96.2	33.8	45.0
Total Split (%)	39.4%	34.6%	74.0%	26.0%	34.6%
Yellow Time (s)	4.8	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8	4.6
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	None	None

Intersection Summary

Cycle Length: 130  
 Actuated Cycle Length: 123.9  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 06/20/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	↵↵
Traffic Volume (veh/h)	1925	238	766	1591	235	631
Future Volume (veh/h)	1925	238	766	1591	235	631
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1964	82	782	1623	240	608
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1965	82	582	4105	311	1590
Arrive On Green	0.48	0.48	0.42	0.95	0.23	0.23
Sat Flow, veh/h	5348	223	1781	5611	1781	3170
Grp Volume(v), veh/h	1372	674	782	1623	240	608
Grp Sat Flow(s),veh/h/ln	1870	1830	1781	1870	1781	1585
Q Serve(g_s), s	45.3	45.4	40.4	2.8	15.6	14.7
Cycle Q Clear(g_c), s	45.3	45.4	40.4	2.8	15.6	14.7
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1374	672	582	4105	311	1590
V/C Ratio(X)	1.00	1.00	1.34	0.40	0.77	0.38
Avail Cap(c_a), veh/h	1374	672	582	4105	404	1755
HCM Platoon Ratio	1.30	1.30	1.30	1.30	1.30	1.30
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	32.3	35.5	0.9	45.5	17.8
Incr Delay (d2), s/veh	23.9	35.3	165.6	0.1	8.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.0	23.7	42.1	0.6	7.2	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	56.2	67.5	201.1	1.0	53.9	18.1
LnGrp LOS	E	F	F	A	D	B
Approach Vol, veh/h	2046			2405	848	
Approach Delay, s/veh	59.9			66.0	28.2	
Approach LOS	E			E	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	45.0	51.2			96.2	27.4
Change Period (Y+Rc), s	4.6	5.8			5.8	5.8
Max Green Setting (Gmax), s	40.4	45.4			90.4	28.0
Max Q Clear Time (g_c+I1), s	42.4	47.4			4.8	17.6
Green Ext Time (p_c), s	0.0	0.0			26.8	4.0

Intersection Summary

HCM 6th Ctrl Delay	57.6
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Timings  
17: Menifee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

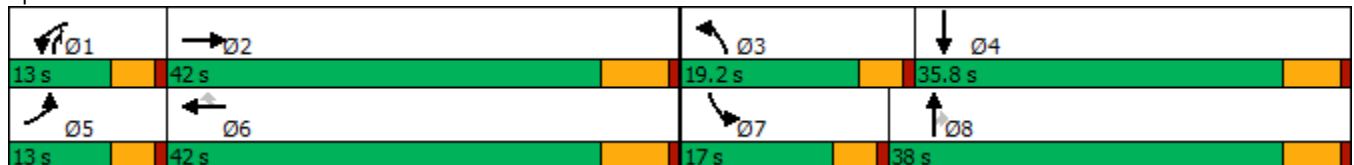


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↑↑↓	↖↗	↑↑↑	↖	↖	↑↑	↖	↖↗	↑↓
Traffic Volume (vph)	89	792	294	1049	151	278	273	298	175	518
Future Volume (vph)	89	792	294	1049	151	278	273	298	175	518
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6		3	8	1	7	4
Permitted Phases					6			8		
Detector Phase	5	2	1	6	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	29.5	10.6	15.8	10.6	10.6	35.8
Total Split (s)	13.0	42.0	13.0	42.0	42.0	19.2	38.0	13.0	17.0	35.8
Total Split (%)	11.8%	38.2%	11.8%	38.2%	38.2%	17.5%	34.5%	11.8%	15.5%	32.5%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	Min	Min	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 107.8  
 Natural Cycle: 110  
 Control Type: Actuated-Uncoordinated

































Splits and Phases: 17: Menifee Rd. & Scott Rd.

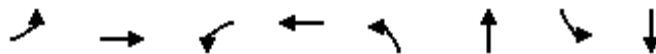


HCM 6th Signalized Intersection Summary  
17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 		 	 	
Traffic Volume (veh/h)	89	792	197	294	1049	151	278	273	298	175	518	157
Future Volume (veh/h)	89	792	197	294	1049	151	278	273	298	175	518	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	870	205	323	1153	154	305	300	123	192	569	169
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1351	316	291	1875	523	253	1226	642	264	717	212
Arrive On Green	0.05	0.31	0.31	0.08	0.33	0.33	0.14	0.33	0.33	0.07	0.26	0.26
Sat Flow, veh/h	3563	4396	1030	3563	5611	1565	1781	3741	1563	3563	2759	817
Grp Volume(v), veh/h	98	740	335	323	1153	154	305	300	123	192	385	353
Grp Sat Flow(s),veh/h/ln	1781	1870	1685	1781	1870	1565	1781	1870	1563	1781	1870	1705
Q Serve(g_s), s	2.7	17.6	17.7	8.4	17.7	7.5	14.6	6.0	5.2	5.4	19.7	19.9
Cycle Q Clear(g_c), s	2.7	17.6	17.7	8.4	17.7	7.5	14.6	6.0	5.2	5.4	19.7	19.9
Prop In Lane	1.00		0.61	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	195	1149	518	291	1875	523	253	1226	642	264	486	443
V/C Ratio(X)	0.50	0.64	0.65	1.11	0.61	0.29	1.21	0.24	0.19	0.73	0.79	0.80
Avail Cap(c_a), veh/h	291	1291	582	291	1937	540	253	1226	642	430	546	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	30.8	30.8	47.2	28.7	25.3	44.1	25.3	19.5	46.6	35.5	35.5
Incr Delay (d2), s/veh	2.0	2.8	6.2	85.6	1.5	1.4	123.9	0.4	0.6	3.8	11.3	12.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.7	7.5	7.0	7.5	2.8	14.9	2.6	1.9	2.4	9.9	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	33.5	37.0	132.8	30.2	26.7	168.0	25.7	20.0	50.4	46.8	48.1
LnGrp LOS	D	C	D	F	C	C	F	C	C	D	D	D
Approach Vol, veh/h		1173			1630			728			930	
Approach Delay, s/veh		35.8			50.2			84.3			48.0	
Approach LOS		D			D			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	38.1	19.2	32.5	10.2	40.9	12.2	39.5				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	8.4	35.5	14.6	30.0	8.4	35.5	12.4	32.2				
Max Q Clear Time (g_c+I1), s	10.4	19.7	16.6	21.9	4.7	19.7	7.4	8.0				
Green Ext Time (p_c), s	0.0	11.9	0.0	4.9	0.1	13.1	0.2	5.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			51.5									
HCM 6th LOS			D									

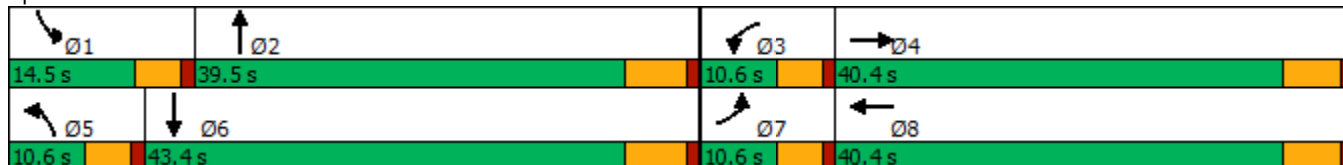


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↑↓	↔	↑↓	↔↔	↑↓	↔	↑↓
Traffic Volume (vph)	276	13	54	45	285	574	13	1087
Future Volume (vph)	276	13	54	45	285	574	13	1087
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	10.6	40.4	10.6	37.8	14.5	37.8
Total Split (s)	10.6	40.4	10.6	40.4	10.6	39.5	14.5	43.4
Total Split (%)	10.1%	38.5%	10.1%	38.5%	10.1%	37.6%	13.8%	41.3%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary





















Cycle Length: 105  
 Actuated Cycle Length: 82.9  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 11/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	13	183	54	45	6	285	574	45	13	1087	710
Future Volume (veh/h)	276	13	183	54	45	6	285	574	45	13	1087	710
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	288	14	135	56	47	3	297	598	24	14	1132	428
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	265	237	95	445	28	267	1866	75	36	1215	447
Arrive On Green	0.07	0.15	0.15	0.05	0.13	0.13	0.07	0.52	0.52	0.02	0.47	0.47
Sat Flow, veh/h	3456	1777	1585	1781	3478	219	3563	3569	143	1781	2596	956
Grp Volume(v), veh/h	288	14	135	56	25	25	297	313	309	14	807	753
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1827	1781	1870	1842	1781	1870	1682
Q Serve(g_s), s	6.0	0.5	6.3	2.5	0.9	1.0	6.0	7.7	7.7	0.6	32.4	34.6
Cycle Q Clear(g_c), s	6.0	0.5	6.3	2.5	0.9	1.0	6.0	7.7	7.7	0.6	32.4	34.6
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.08	1.00		0.57
Lane Grp Cap(c), veh/h	259	265	237	95	239	234	267	978	963	36	875	787
V/C Ratio(X)	1.11	0.05	0.57	0.59	0.10	0.11	1.11	0.32	0.32	0.39	0.92	0.96
Avail Cap(c_a), veh/h	259	776	692	133	817	798	267	978	963	220	877	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	29.2	31.7	37.1	30.9	30.9	37.1	11.0	11.0	38.8	20.0	20.5
Incr Delay (d2), s/veh	89.8	0.1	3.0	5.7	0.3	0.3	89.1	0.3	0.3	6.9	15.2	22.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.2	2.5	1.2	0.4	0.4	5.8	2.7	2.7	0.3	15.4	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.9	29.3	34.7	42.8	31.2	31.2	126.2	11.3	11.3	45.6	35.1	42.8
LnGrp LOS	F	C	C	D	C	C	F	B	B	D	D	D
Approach Vol, veh/h		437			106			919			1574	
Approach Delay, s/veh		95.3			37.3			48.4			38.9	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	47.7	8.9	17.4	10.6	43.3	10.6	15.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	9.9	33.7	6.0	35.0	6.0	37.6	6.0	35.0				
Max Q Clear Time (g_c+I1), s	2.6	9.7	4.5	8.3	8.0	36.6	8.0	3.0				
Green Ext Time (p_c), s	0.0	5.6	0.0	1.1	0.0	0.9	0.0	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.8									
HCM 6th LOS			D									



Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
03/29/2022

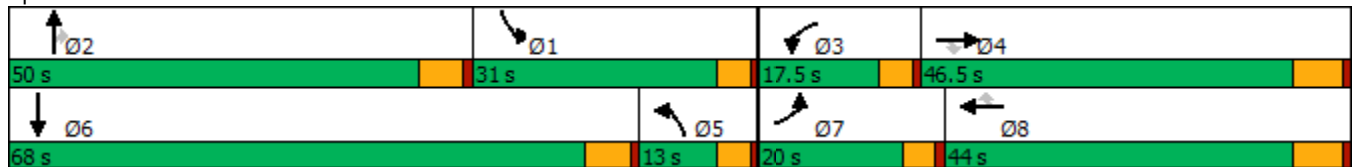


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↑↑↑	↗	↖↗	↑↑↑	↗	↖↗	↑↑	↗	↖↗	↑↗
Traffic Volume (vph)	400	1093	387	291	1386	217	203	1145	488	644	1563
Future Volume (vph)	400	1093	387	291	1386	217	203	1145	488	644	1563
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	46.5	10.6	43.5	43.5	10.6	45.8	45.8	10.6	45.8
Total Split (s)	20.0	46.5	46.5	17.5	44.0	44.0	13.0	50.0	50.0	31.0	68.0
Total Split (%)	13.8%	32.1%	32.1%	12.1%	30.3%	30.3%	9.0%	34.5%	34.5%	21.4%	46.9%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	6.5	4.6	6.5	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary



































Cycle Length: 145  
 Actuated Cycle Length: 145  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 03/29/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Traffic Volume (veh/h)	400	1093	387	291	1386	217	203	1145	488	644	1563	278
Future Volume (veh/h)	400	1093	387	291	1386	217	203	1145	488	644	1563	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.94	1.00		0.91	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	408	1115	99	297	1414	55	207	1168	125	657	1595	71
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	378	1548	382	317	1451	384	206	1140	438	649	1521	67
Arrive On Green	0.21	0.55	0.55	0.18	0.52	0.52	0.12	0.61	0.61	0.36	0.86	0.86
Sat Flow, veh/h	3563	5611	1383	3563	5611	1484	3563	3741	1435	3563	3546	157
Grp Volume(v), veh/h	408	1115	99	297	1414	55	207	1168	125	657	837	829
Grp Sat Flow(s),veh/h/ln	1781	1870	1383	1781	1870	1484	1781	1870	1435	1781	1870	1833
Q Serve(g_s), s	15.4	21.4	4.4	11.9	35.6	1.8	8.4	44.2	4.6	26.4	62.2	62.2
Cycle Q Clear(g_c), s	15.4	21.4	4.4	11.9	35.6	1.8	8.4	44.2	4.6	26.4	62.2	62.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	378	1548	382	317	1451	384	206	1140	438	649	802	786
V/C Ratio(X)	1.08	0.72	0.26	0.94	0.97	0.14	1.00	1.02	0.29	1.01	1.04	1.05
Avail Cap(c_a), veh/h	378	1548	382	317	1451	384	206	1140	438	649	802	786
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	28.3	16.4	59.2	34.5	11.3	64.1	28.3	12.3	46.1	10.3	10.3
Incr Delay (d2), s/veh	68.8	1.7	0.4	34.4	17.8	0.2	63.4	33.0	0.4	38.6	43.7	47.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	7.0	1.7	6.3	14.1	1.0	5.3	17.8	1.8	12.9	14.1	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	125.9	30.0	16.8	93.6	52.3	11.5	127.5	61.3	12.7	84.7	54.0	57.6
LnGrp LOS	F	C	B	F	D	B	F	F	B	F	F	F
Approach Vol, veh/h		1622			1766			1500			2323	
Approach Delay, s/veh		53.3			58.0			66.4			63.9	
Approach LOS		D			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	50.0	17.5	46.5	13.0	68.0	20.0	44.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	4.6	5.8	4.6	6.5				
Max Green Setting (Gmax), s	26.4	44.2	12.9	40.0	8.4	62.2	15.4	37.5				
Max Q Clear Time (g_c+I1), s	28.4	46.2	13.9	23.4	10.4	64.2	17.4	37.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			60.6									
HCM 6th LOS			E									
<b>Notes</b>												
User approved changes to right turn type.												

Timings  
1: Inland Valley Dr. & Clinton Keith Rd.

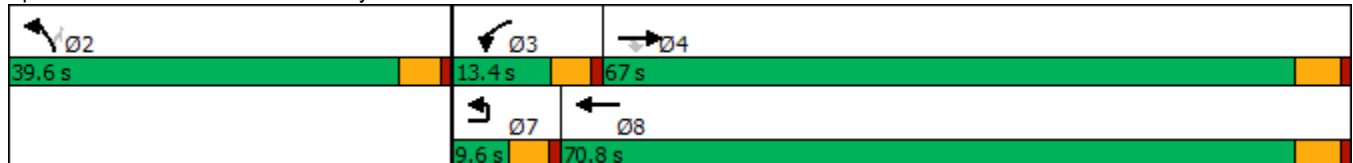


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø7
Lane Configurations	↑↑↑	↑	↓	↑↑↑	↓	↓	
Traffic Volume (vph)	2500	453	115	2075	470	189	
Future Volume (vph)	2500	453	115	2075	470	189	
Turn Type	NA	Perm	Prot	NA	Prot	Perm	
Protected Phases	4		3	8	2		7
Permitted Phases		4				2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	5.0
Minimum Split (s)	22.1	22.1	9.6	15.1	14.7	14.7	9.6
Total Split (s)	67.0	67.0	13.4	70.8	39.6	39.6	9.6
Total Split (%)	55.8%	55.8%	11.2%	59.0%	33.0%	33.0%	8%
Yellow Time (s)	4.1	4.1	3.6	4.1	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.1	5.1	4.6	5.1	4.7	4.7	
Lead/Lag	Lag	Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 119.6  
 Natural Cycle: 120  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Inland Valley Dr. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 1: Inland Valley Dr. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 12/06/2021



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐	⇑⇑⇑	⇑	⇑	⇑⇑⇑	⇑	⇑
Traffic Volume (veh/h)	0	2500	453	115	2075	470	189
Future Volume (veh/h)	0	2500	453	115	2075	470	189
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		2632	368	121	2184	495	180
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2636	818	131	3207	517	460
Arrive On Green		0.52	0.52	0.07	0.63	0.29	0.29
Sat Flow, veh/h		5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h		2632	368	121	2184	495	180
Grp Sat Flow(s),veh/h/ln		1702	1585	1781	1702	1781	1585
Q Serve(g_s), s		61.7	17.5	8.1	33.3	32.7	10.9
Cycle Q Clear(g_c), s		61.7	17.5	8.1	33.3	32.7	10.9
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2636	818	131	3207	517	460
V/C Ratio(X)		1.00	0.45	0.93	0.68	0.96	0.39
Avail Cap(c_a), veh/h		2636	818	131	3207	519	461
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		28.9	18.3	55.2	14.5	41.8	34.1
Incr Delay (d2), s/veh		17.1	0.4	55.5	0.6	29.0	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		27.7	6.3	5.6	12.0	18.4	4.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		46.1	18.7	110.8	15.1	70.8	34.6
LnGrp LOS		D	B	F	B	E	C
Approach Vol, veh/h		3000			2305	675	
Approach Delay, s/veh		42.7			20.1	61.1	
Approach LOS		D			C	E	
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		39.5	13.4	67.0			80.4
Change Period (Y+Rc), s		* 4.7	4.6	5.1			5.1
Max Green Setting (Gmax), s		* 35	8.8	61.9			65.7
Max Q Clear Time (g_c+I1), s		34.7	10.1	63.7			35.3
Green Ext Time (p_c), s		0.0	0.0	0.0			21.3

Intersection Summary

HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

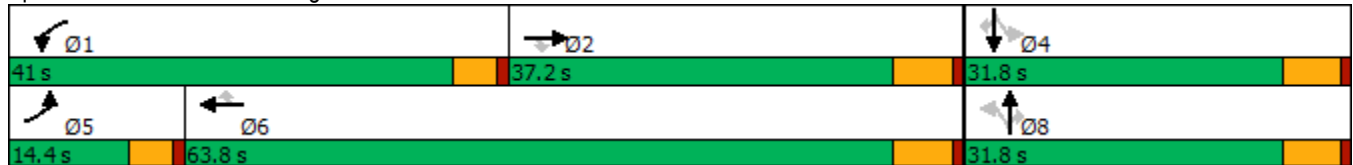
12/06/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1447	163	678	1260	131	132	105	551	162	78	36
Future Volume (vph)	64	1447	163	678	1260	131	132	105	551	162	78	36
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.6	33.8	33.8	10.6	31.8	31.8	31.8	31.8	31.8	11.8	11.8	11.8
Total Split (s)	14.4	37.2	37.2	41.0	63.8	63.8	31.8	31.8	31.8	31.8	31.8	31.8
Total Split (%)	13.1%	33.8%	33.8%	37.3%	58.0%	58.0%	28.9%	28.9%	28.9%	28.9%	28.9%	28.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 104  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Nutmeg St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
2: Nutmeg St. & Clinton Keith Rd.

Discovery Village (JN:14073)

12/06/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	1447	163	678	1260	131	132	105	551	162	78	36
Future Volume (veh/h)	64	1447	163	678	1260	131	132	105	551	162	78	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1539	152	721	1340	105	140	112	268	172	83	35
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	1603	439	590	3185	880	321	441	367	253	441	369
Arrive On Green	0.05	0.29	0.29	0.33	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	5611	1538	1781	5611	1550	1274	1870	1557	1000	1870	1565
Grp Volume(v), veh/h	68	1539	152	721	1340	105	140	112	268	172	83	35
Grp Sat Flow(s),veh/h/ln	1781	1870	1538	1781	1870	1550	1274	1870	1557	1000	1870	1565
Q Serve(g_s), s	4.1	29.7	8.6	36.4	14.9	3.5	10.9	5.4	17.5	18.6	3.9	1.9
Cycle Q Clear(g_c), s	4.1	29.7	8.6	36.4	14.9	3.5	14.8	5.4	17.5	23.9	3.9	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	1603	439	590	3185	880	321	441	367	253	441	369
V/C Ratio(X)	0.78	0.96	0.35	1.22	0.42	0.12	0.44	0.25	0.73	0.68	0.19	0.09
Avail Cap(c_a), veh/h	159	1603	439	590	3185	880	322	442	368	253	442	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	38.6	31.1	36.8	13.5	11.0	39.5	34.1	38.8	43.9	33.6	32.8
Incr Delay (d2), s/veh	13.6	14.2	0.6	114.7	0.1	0.1	1.2	0.4	7.5	7.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	15.0	3.2	33.7	5.7	1.1	3.5	2.5	7.4	5.1	1.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.2	52.9	31.8	151.4	13.6	11.1	40.7	34.5	46.3	51.5	33.8	33.0
LnGrp LOS	E	D	C	F	B	B	D	C	D	D	C	C
Approach Vol, veh/h		1759			2166			520			290	
Approach Delay, s/veh		51.5			59.4			42.2			44.2	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	41.0	37.2		31.7	10.0	68.2		31.7				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		5.8				
Max Green Setting (Gmax), s	36.4	31.4		26.0	9.8	58.0		26.0				
Max Q Clear Time (g_c+I1), s	38.4	31.7		25.9	6.1	16.9		19.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	17.4		1.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				53.7								
HCM 6th LOS				D								

Timings

3: California Oaks St. & Clinton Keith Rd.



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↵	↑↑↑	↵	↵↵
Traffic Volume (vph)	1938	1083	1849	193	1000
Future Volume (vph)	1938	1083	1849	193	1000
Turn Type	NA	Prot	NA	Prot	pm+ov
Protected Phases	2	1	6	8	1
Permitted Phases					8
Detector Phase	2	1	6	8	1
Switch Phase					
Minimum Initial (s)	10.0	6.0	10.0	6.0	6.0
Minimum Split (s)	32.8	10.6	15.8	33.8	10.6
Total Split (s)	49.2	57.0	106.2	33.8	57.0
Total Split (%)	35.1%	40.7%	75.9%	24.1%	40.7%
Yellow Time (s)	4.8	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8	4.6
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Recall Mode	None	None	None	None	None

Intersection Summary

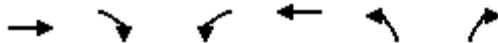
Cycle Length: 140  
 Actuated Cycle Length: 132.9  
 Natural Cycle: 150  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 3: California Oaks St. & Clinton Keith Rd.



HCM 6th Signalized Intersection Summary  
 3: California Oaks St. & Clinton Keith Rd.

Discovery Village (JN:14073)  
 06/20/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	↵↵
Traffic Volume (veh/h)	1938	193	1083	1849	193	1000
Future Volume (veh/h)	1938	193	1083	1849	193	1000
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2040	47	1140	1946	203	264
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1798	41	708	4327	251	1707
Arrive On Green	0.43	0.43	0.52	1.00	0.18	0.18
Sat Flow, veh/h	5459	126	1781	5611	1781	3170
Grp Volume(v), veh/h	1397	690	1140	1946	203	264
Grp Sat Flow(s),veh/h/ln	1870	1844	1781	1870	1781	1585
Q Serve(g_s), s	43.4	43.4	52.4	0.0	14.4	0.0
Cycle Q Clear(g_c), s	43.4	43.4	52.4	0.0	14.4	0.0
Prop In Lane		0.07	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1232	607	708	4327	251	1707
V/C Ratio(X)	1.13	1.14	1.61	0.45	0.81	0.15
Avail Cap(c_a), veh/h	1232	607	708	4327	379	1934
HCM Platoon Ratio	1.30	1.30	1.30	1.30	1.30	1.30
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	37.7	31.8	0.0	52.1	14.5
Incr Delay (d2), s/veh	70.6	80.3	280.7	0.1	10.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.6	30.9	74.4	0.0	6.8	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	108.3	117.9	312.5	0.1	62.7	14.6
LnGrp LOS	F	F	F	A	E	B
Approach Vol, veh/h	2087			3086	467	
Approach Delay, s/veh	111.5			115.5	35.5	
Approach LOS	F			F	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	58.2	49.2			107.4	24.4
Change Period (Y+Rc), s	5.8	* 5.8			5.8	5.8
Max Green Setting (Gmax), s	52.4	* 43			100.4	28.0
Max Q Clear Time (g_c+I1), s	54.4	45.4			2.0	16.4
Green Ext Time (p_c), s	0.0	0.0			40.6	2.2

Intersection Summary

HCM 6th Ctrl Delay	107.4
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Timings  
17: Meniffee Rd. & Scott Rd.

Discovery Village (JN:14073)

12/06/2021

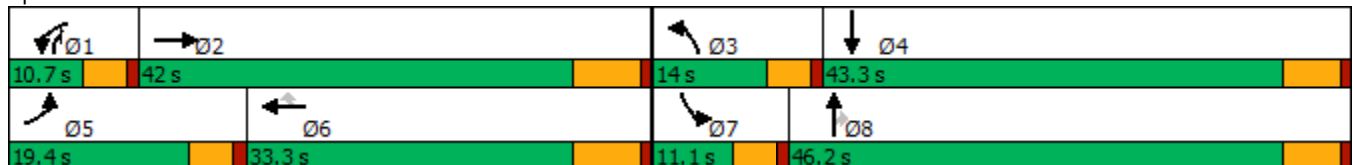


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↔↔	↕↕↕	↔↔	↕↕↕	↔	↔	↕↕	↔	↔↔	↕↕
Traffic Volume (vph)	304	993	159	969	149	275	495	259	107	222
Future Volume (vph)	304	993	159	969	149	275	495	259	107	222
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	2	1	6		3	8	1	7	4
Permitted Phases					6			8		
Detector Phase	5	2	1	6	6	3	8	1	7	4
Switch Phase										
Minimum Initial (s)	6.0	10.0	6.0	10.0	10.0	6.0	10.0	6.0	6.0	10.0
Minimum Split (s)	10.6	41.5	10.6	29.5	29.5	10.6	15.8	10.6	10.6	35.8
Total Split (s)	19.4	42.0	10.7	33.3	33.3	14.0	46.2	10.7	11.1	43.3
Total Split (%)	17.6%	38.2%	9.7%	30.3%	30.3%	12.7%	42.0%	9.7%	10.1%	39.4%
Yellow Time (s)	3.6	5.5	3.6	5.5	5.5	3.6	4.8	3.6	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	4.6	6.5	6.5	4.6	5.8	4.6	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None

Intersection Summary


































Cycle Length: 110  
 Actuated Cycle Length: 91.9  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 17: Meniffee Rd. & Scott Rd.



HCM 6th Signalized Intersection Summary  
 17: Meniffee Rd. & Scott Rd.

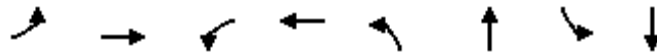
Discovery Village (JN:14073)  
 12/06/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 		 	 	 
Traffic Volume (veh/h)	304	993	365	159	969	149	275	495	259	107	222	133
Future Volume (veh/h)	304	993	365	159	969	149	275	495	259	107	222	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	310	1013	361	162	989	146	281	505	146	109	227	117
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	401	1494	532	237	1872	529	189	929	494	225	485	240
Arrive On Green	0.11	0.38	0.38	0.07	0.33	0.33	0.11	0.25	0.25	0.06	0.21	0.21
Sat Flow, veh/h	3563	3935	1402	3563	5611	1585	1781	3741	1565	3563	2358	1170
Grp Volume(v), veh/h	310	963	411	162	989	146	281	505	146	109	178	166
Grp Sat Flow(s),veh/h/ln	1781	1870	1596	1781	1870	1585	1781	1870	1565	1781	1870	1658
Q Serve(g_s), s	7.5	19.1	19.1	3.9	12.6	6.0	9.4	10.4	6.3	2.6	7.4	7.8
Cycle Q Clear(g_c), s	7.5	19.1	19.1	3.9	12.6	6.0	9.4	10.4	6.3	2.6	7.4	7.8
Prop In Lane	1.00		0.88	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	401	1420	606	237	1872	529	189	929	494	225	384	341
V/C Ratio(X)	0.77	0.68	0.68	0.68	0.53	0.28	1.49	0.54	0.30	0.49	0.46	0.49
Avail Cap(c_a), veh/h	595	1498	639	245	1872	529	189	1704	818	261	791	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	23.0	23.0	40.5	23.9	21.7	39.6	29.0	23.0	40.2	30.9	31.1
Incr Delay (d2), s/veh	3.7	2.6	6.0	7.4	1.1	1.3	245.6	1.9	1.3	1.6	3.3	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	7.8	7.3	1.9	5.1	2.3	16.8	4.6	2.3	1.1	3.5	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	25.6	29.0	47.8	25.0	23.0	285.3	30.9	24.2	41.8	34.3	35.2
LnGrp LOS	D	C	C	D	C	C	F	C	C	D	C	D
Approach Vol, veh/h		1684			1297			932			453	
Approach Delay, s/veh		29.4			27.6			106.5			36.4	
Approach LOS		C			C			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	40.2	14.0	24.0	14.6	36.1	10.2	27.8				
Change Period (Y+Rc), s	4.6	6.5	4.6	5.8	4.6	6.5	4.6	5.8				
Max Green Setting (Gmax), s	6.1	35.5	9.4	37.5	14.8	26.8	6.5	40.4				
Max Q Clear Time (g_c+I1), s	5.9	21.1	11.4	9.8	9.5	14.6	4.6	12.4				
Green Ext Time (p_c), s	0.0	12.6	0.0	4.8	0.5	9.7	0.0	9.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			46.1									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

Timings  
19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)

11/14/2022

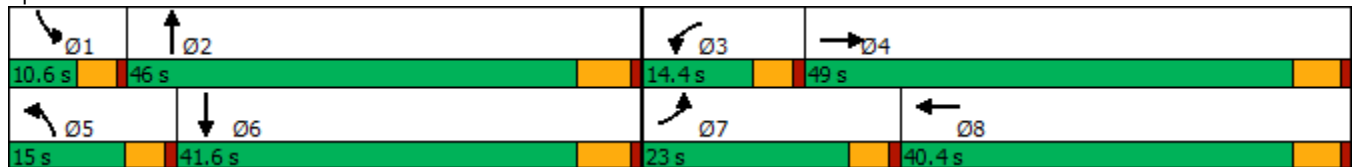


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖↗	↕	↖	↕	↖↗	↕	↖	↕
Traffic Volume (vph)	628	33	66	20	350	1214	13	856
Future Volume (vph)	628	33	66	20	350	1214	13	856
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	10.0	6.0	10.0	6.0	10.0	6.0	10.0
Minimum Split (s)	10.6	40.4	10.6	40.4	10.6	37.8	10.6	37.8
Total Split (s)	23.0	49.0	14.4	40.4	15.0	46.0	10.6	41.6
Total Split (%)	19.2%	40.8%	12.0%	33.7%	12.5%	38.3%	8.8%	34.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None

Intersection Summary





























Cycle Length: 120  
 Actuated Cycle Length: 94.7  
 Natural Cycle: 140  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Whitewood Rd. & Baxter Rd.



HCM 6th Signalized Intersection Summary  
 19: Whitewood Rd. & Baxter Rd.

Discovery Village (JN:14073)  
 11/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	628	33	296	66	20	16	350	1214	59	13	856	273
Future Volume (veh/h)	628	33	296	66	20	16	350	1214	59	13	856	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	654	34	231	69	21	17	365	1265	57	14	892	283
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	675	448	394	95	223	159	393	1628	73	35	998	316
Arrive On Green	0.20	0.25	0.25	0.05	0.11	0.11	0.11	0.46	0.46	0.02	0.37	0.37
Sat Flow, veh/h	3456	1777	1565	1781	2030	1446	3563	3549	160	1781	2713	859
Grp Volume(v), veh/h	654	34	231	69	19	19	365	666	656	14	614	561
Grp Sat Flow(s),veh/h/ln	1728	1777	1565	1781	1870	1605	1781	1870	1839	1781	1870	1701
Q Serve(g_s), s	17.7	1.4	12.2	3.6	0.9	1.0	9.6	28.2	28.3	0.7	29.1	29.3
Cycle Q Clear(g_c), s	17.7	1.4	12.2	3.6	0.9	1.0	9.6	28.2	28.3	0.7	29.1	29.3
Prop In Lane	1.00		1.00	1.00		0.90	1.00		0.09	1.00		0.50
Lane Grp Cap(c), veh/h	675	448	394	95	205	176	393	858	843	35	688	626
V/C Ratio(X)	0.97	0.08	0.59	0.73	0.09	0.11	0.93	0.78	0.78	0.40	0.89	0.90
Avail Cap(c_a), veh/h	675	823	724	185	695	597	393	858	843	113	711	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	26.9	30.9	43.9	37.7	37.8	41.5	21.4	21.4	45.6	28.0	28.1
Incr Delay (d2), s/veh	26.9	0.1	1.9	10.1	0.3	0.4	28.0	4.9	5.0	7.3	13.9	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	0.6	4.5	1.8	0.4	0.4	5.5	12.1	12.0	0.4	14.5	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	27.0	32.8	54.0	38.0	38.1	69.5	26.3	26.5	52.9	41.9	43.5
LnGrp LOS	E	C	C	D	D	D	E	C	C	D	D	D
Approach Vol, veh/h		919			107			1687			1189	
Approach Delay, s/veh		55.1			48.4			35.7			42.8	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	49.0	9.6	29.1	15.0	40.4	23.0	15.7				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	5.4				
Max Green Setting (Gmax), s	6.0	40.2	9.8	43.6	10.4	35.8	18.4	35.0				
Max Q Clear Time (g_c+1), s	2.7	30.3	5.6	14.2	11.6	31.3	19.7	3.0				
Green Ext Time (p_c), s	0.0	7.2	0.0	2.2	0.0	3.4	0.0	0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			42.8									
HCM 6th LOS			D									

Timings  
22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
03/29/2022

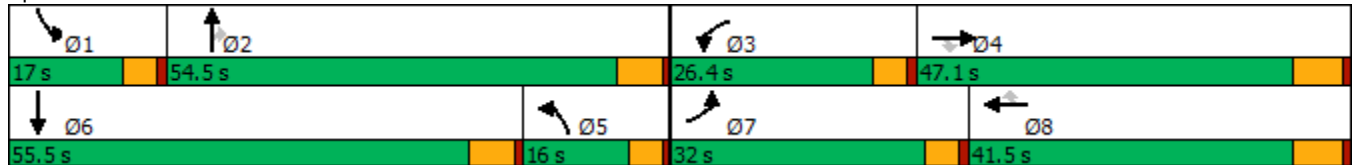


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↑↑↑	↗	↖↗	↑↑↑	↗	↖↗	↑↑	↗	↖↗	↑↔
Traffic Volume (vph)	855	1206	418	471	899	219	327	1227	473	349	818
Future Volume (vph)	855	1206	418	471	899	219	327	1227	473	349	818
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	10.6	46.5	46.5	10.6	41.5	41.5	10.6	45.8	45.8	10.6	45.8
Total Split (s)	32.0	47.1	47.1	26.4	41.5	41.5	16.0	54.5	54.5	17.0	55.5
Total Split (%)	22.1%	32.5%	32.5%	18.2%	28.6%	28.6%	11.0%	37.6%	37.6%	11.7%	38.3%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	5.5	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.5	6.5	4.6	6.5	6.5	4.6	5.8	5.8	4.6	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 145  
 Actuated Cycle Length: 143  
 Natural Cycle: 145  
 Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Clinton Keith Rd. & Whitewood Rd.



HCM 6th Signalized Intersection Summary  
 22: Clinton Keith Rd. & Whitewood Rd.

Discovery Village (JN:14073)  
 03/29/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘	↑↑↑	↗	↗↘	↑↑↑	↗	↗↘	↑↑	↗	↗↘	↑↑	↗↘
Traffic Volume (veh/h)	855	1206	418	471	899	219	327	1227	473	349	818	628
Future Volume (veh/h)	855	1206	418	471	899	219	327	1227	473	349	818	628
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	872	1231	107	481	917	35	334	1252	121	356	835	160
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	719	1431	404	527	1130	317	471	1299	551	325	907	174
Arrive On Green	0.40	0.51	0.51	0.30	0.40	0.40	0.26	0.69	0.69	0.18	0.60	0.60
Sat Flow, veh/h	3563	5611	1583	3563	5611	1576	3563	3741	1585	3563	3046	584
Grp Volume(v), veh/h	872	1231	107	481	917	35	334	1252	121	356	513	482
Grp Sat Flow(s),veh/h/ln	1781	1870	1583	1781	1870	1576	1781	1870	1585	1781	1870	1760
Q Serve(g_s), s	27.4	26.0	3.6	17.7	19.7	1.9	11.5	42.0	3.7	12.4	33.3	33.3
Cycle Q Clear(g_c), s	27.4	26.0	3.6	17.7	19.7	1.9	11.5	42.0	3.7	12.4	33.3	33.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	719	1431	404	527	1130	317	471	1299	551	325	557	524
V/C Ratio(X)	1.21	0.86	0.26	0.91	0.81	0.11	0.71	0.96	0.22	1.09	0.92	0.92
Avail Cap(c_a), veh/h	719	1677	473	572	1446	406	471	1341	568	325	684	644
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	31.1	12.8	47.0	38.3	33.0	47.6	19.9	14.1	55.5	26.0	26.0
Incr Delay (d2), s/veh	108.6	4.2	0.3	18.3	2.8	0.2	4.9	16.4	0.2	77.7	15.8	16.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	8.9	1.8	7.7	7.3	0.7	4.8	11.3	1.3	8.4	11.7	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	149.2	35.4	13.2	65.2	41.1	33.1	52.5	36.4	14.3	133.2	41.8	42.6
LnGrp LOS	F	D	B	E	D	C	D	D	B	F	D	D
Approach Vol, veh/h		2210			1433			1707			1351	
Approach Delay, s/veh		79.2			49.0			38.0			66.2	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	53.0	24.7	41.2	23.7	46.2	32.0	33.9				
Change Period (Y+Rc), s	4.6	5.8	4.6	6.5	5.8	* 5.8	4.6	6.5				
Max Green Setting (Gmax), s	12.4	48.7	21.8	40.6	11.4	* 50	27.4	35.0				
Max Q Clear Time (g_c+I1), s	14.4	44.0	19.7	28.0	13.5	35.3	29.4	21.7				
Green Ext Time (p_c), s	0.0	3.2	0.4	6.5	0.0	5.1	0.0	4.9				

Intersection Summary

HCM 6th Ctrl Delay	59.6
HCM 6th LOS	E

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
 User approved changes to right turn type.