

## Attachment 4

### *Traffic Impact Study*

# El Dorado Senior Resort County of El Dorado, California

October 17, 2018

### Prepared for:

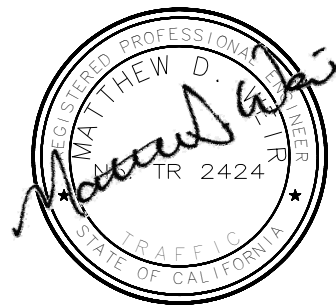
El Dorado Sr. Housing, LLC.

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## EXECUTIVE SUMMARY

This report documents the results of a traffic impact analysis completed for the El Dorado Senior Resort project proposed to be located west of Koki Lane just south of State Route (SR) 49 in El Dorado County, California (the “proposed project” or “project”). The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performed in accordance with the El Dorado County Community Development Agency’s *Transportation Impact Study Guidelines*, and the scope of work provided by a representative of the County.

The 8.2-acre project site is proposed to be developed with an assisted living/memory care facility (84 beds<sup>1</sup>), senior apartments (63 units), single family residences (9 units), and 7,500 square feet of retail, restaurant, and office buildings. Access to the site will be provided via one full access driveway along Koki Lane. The following intersections are included in this evaluation:

1. SR-49 @ Pleasant Valley Road
2. SR-49 @ Forni Road
3. SR-49 @ Koki Lane
4. SR-49 @ Patterson Drive
5. SR-49 @ Missouri Flat Road
6. SR-49/ Fowler Lane @ Pleasant Valley Road
7. Koki Lane @ Project Site Access Driveway (Project Only)

Based on the County’s requirements, this LOS analysis was conducted for the above facilities for the following scenarios:

- A. Existing (2018) Conditions
- B. Existing (2018) plus Proposed Project Conditions<sup>+</sup>
- C. Near-Term (2028) Conditions<sup>++</sup>
- D. Near-Term (2028) plus Proposed Project Conditions<sup>+++</sup>
- E. Cumulative (2035) Conditions<sup>++++</sup>
- F. Cumulative (2035) plus Proposed Project Conditions<sup>+++++</sup>

<sup>+</sup> Scenario adds currently proposed project to Existing (2018) Conditions

<sup>++</sup> Scenario established by interpolating between the current El Dorado County Travel Demand Model (TDM) existing and Cumulative year volumes for the study area roadway segments

<sup>+++</sup> Scenario adds currently proposed project to Near-Term (2028) Conditions

<sup>++++</sup> Scenario considers the current El Dorado County Travel Demand Model (TDM) land uses.

<sup>+++++</sup> Scenario adds currently proposed project to Cumulative (2035) Conditions

Significant findings of this study include:

- The proposed project is estimated to generate 787 total new daily trips, with 41 new trips occurring during the AM peak-hour, and 62 new trips occurring during the PM peak-hour.
- As defined by the County, the addition of the proposed project to the Existing (2018) and Cumulative (2035) scenarios worsen conditions at study Intersection #1 (SR 49 @ Pleasant Valley Road). These impacts can be mitigated to less than significant. As a result, the project’s potential environmental impacts to transportation facilities are considered to be ***less than significant***.

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<sup>1</sup> The project site plan (Email from Roger Lewis on 6/4/18) shows 74 assisted living beds, revised from 84 beds.

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## INTRODUCTION

This report documents the results of a traffic impact analysis completed for the El Dorado Senior Resort project proposed to be located west of Koki Lane just south of State Route (SR) 49 in El Dorado County, California (the “proposed project” or “project”). The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performed in accordance with the El Dorado County Community Development Agency’s *Transportation Impact Study Guidelines*, and the scope of work provided by a representative of the County<sup>2</sup>. The remaining sections of this report document the proposed project, analysis methodologies, impacts and mitigation, and general study conclusions.

## PROJECT DESCRIPTION

The 8.2-acre project site is proposed to be developed with an assisted living/memory care facility (84 beds), senior apartments (63 units), single family residences (9 units), and 7,500 square feet of retail, restaurant, and office buildings. Access to the site will be provided via one full access driveway along Koki Lane. The project location is shown in **Figure 1**, and the proposed project site plan is shown in **Figure 2**. **Figure 3** illustrates the study facilities, existing traffic control, and existing lane configurations. The following intersections are included in this evaluation:

1. SR-49 @ Pleasant Valley Road
2. SR-49 @ Forni Road
3. SR-49 @ Koki Lane
4. SR-49 @ Patterson Drive
5. SR-49 @ Missouri Flat Road
6. SR-49/ Fowler Lane @ Pleasant Valley Road
7. Koki Lane @ Project Site Access Driveway (Project Only)

In addition, roadway segment counts were collected for the following segments:

1. SR 49, between Forni Road and Koki Lane
2. Koki Lane, between SR 49 and Union Mine Road

## PROJECT AREA ROADWAYS

The following are descriptions of the primary roadways in the vicinity of the project.

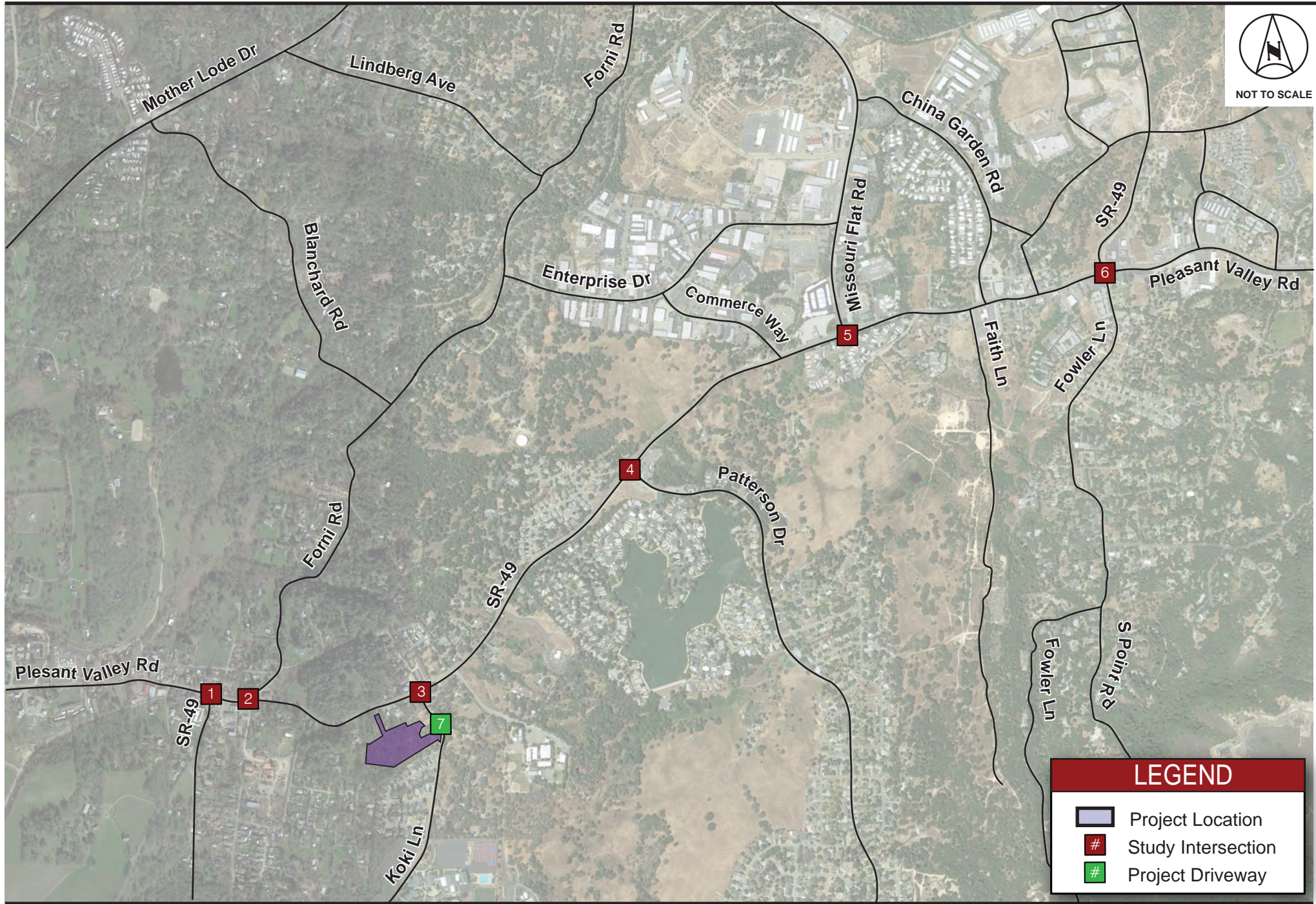
**State Route 49 (SR 49)** is an east-west highway located north of the project site. Generally, SR 49 serves all of El Dorado County’s major population centers and provides connections to Amador County to the south and the Placer County to the north. Primary access to the project site from SR 49 is provided at the Koki Lane/SR 49 intersection. Within the general project area, SR 49 currently serves approximately 8,500 vehicles per day (vpd) with one travel lane in each direction, between Forni Road and Koki Lane.

**Pleasant Valley Road** is an east-west arterial roadway that has its western terminus at Mother Lode Drive near Kingsville, and eastern terminus in Pleasant Valley in eastern El Dorado County. Through the project area, Pleasant Valley Road transitions to SR 49 for approximately 2 miles, and transitions back to Pleasant Valley Road east of Diamond Springs.

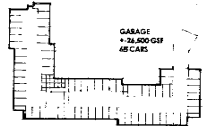
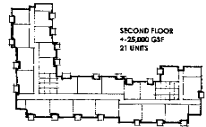
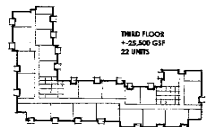
**Missouri Flat Road** is a north-south collector roadway that provides access to US-50 north of SR 49. Missouri Flat Road has one travel lane in each direction near the project location, and transitions to two lanes in each direction near US-50.

<sup>2</sup> Memorandum from Natalie Porter and Katie Jackson, El Dorado County, March 19, 2019.

# El Dorado Senior Resort - Traffic Impact Analysis



# El Dorado Senior Resort - Traffic Impact Analysis



**SENIOR INDEPENDENT APARTMENTS**  
+102,500 GSF 64 UNITS 65 PARKING SPACES

**FOOTAGE SUMMARY**  
Assisted Living Facility  
Garage: +25,800 gsf  
Residential: +99,300 gsf  
Total: +125,100 gsf

**Apartment Facility**  
Garage: +25,800 gsf  
Residential: +75,000 gsf  
Total: +100,800 gsf

**Community Center**  
+3,750 gsf

**Commercial Building 1**  
+3,000 gsf

**Commercial Building 2**  
+2,500 gsf

**Single Family**  
9 Units @ +1,500 gsf = +13,500 gsf

**TOTAL PROPOSED FOOTAGE** = +243,150 GSF

**PARKING SUMMARY**  
Assisted Living Facility  
+60 Garage Spaces  
+ 4 On-Grade Spaces  
Total = 64 Spaces

**Apartment Facility**  
+58 Garage Spaces

**Community Center**  
+7 On-Grade Spaces

**Single Family**  
+2 Garage Spaces/Unit = 18 Spaces  
+2 Admin Spaces/Unit = 18 Spaces  
Total = 36 Spaces

**On-Street**  
= 53 Spaces

**TOTAL PROPOSED PARKING** = +228 SPACES

- GENERAL NOTES:**
- Service yards contain propane tanks and trash collection.
  - All local lanes shall be constructed around the perimeter of the project site. See landscape drawings.
  - All smaller than 1/2" electrical all the way to conforming to listing Ordinance 130.16.
  - See utility plans for lighting, water, sewer, and fire hydrants.
  - Commercial buildings are open to the public.
  - Site features such as rock outcroppings, lava caps, storage coves, lakes, canals, reservoirs, rivers, streams, spring areas subject to evaluation and wetlands are not present on the site.
  - The TRCA National Flood Hazard Overlay, the project is in the area of minor flood hazard.
  - There are no known or proposed faults on the project site.

**EL DORADO TOWNSITE BLOCK 8**  
A.P.N. 331-151-16  
**TRACT 3 RS 25-128**  
CORP. PRES. BISHOP CH. JESUS  
A101.530 D.F.

**EL DORADO TOWNSITE PORTION BLOCK 16**  
A.P.N. 331-221-22  
**TRACT 1 RS 25-52**  
FRANK FERROGGI  
DOC. 2008-001056

**COMMERCIAL BUILDING #1**  
2 Story / +3,000 gsf

**COMMUNITY CENTER**  
2 Story / +3,750 gsf

**SENIOR INDEPENDENT APARTMENTS**  
Garage: +25,800 gsf + 48 cars  
Residential: +75,000 gsf

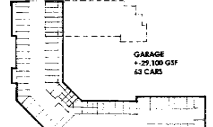
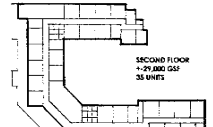
**ASSISTED AND MEMORY CARE FACILITY**  
Garage: +29,100 gsf + 45 cars  
Residential: +79,300 gsf 8 Memory Care Units  
66 Assisted Care Units

**SINGLE FAMILY RESIDENTIAL**  
9 Units @ +1,500 gsf = +13,500 gsf

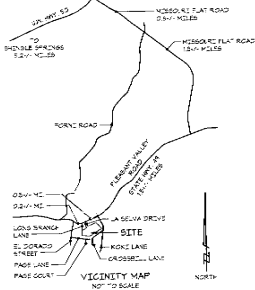
**COMMERCIAL BUILDING #2**  
2 Story / +2,500 gsf

**SITE STATISTICS**  
LOCATION: HIGHWAY 49 AT KOKI LANE  
EL DORADO, CALIFORNIA  
APN: 331-221-30, -32  
SITE SIZE: 1/2 = 3.2 ACRES (397,000 GSF)  
ZONING: COMMERCIAL AND MULTIFAMILY  
RESIDENTIAL WITH DESIGN CONTROL  
USE: VACANT

## SITE PLAN



**ASSISTED LIVING AND MEMORY CARE FACILITY**  
+108,400 GSF 74 UNITS 67 PARKING SPACES



Robert Wright NCARB  
Wright Architecture Studio  
101 Lucas Valley Road, Suite 313  
San Rafael, CA 94903  
(415) 491-4447 / FAX (415) 491-4445  
email: bob@wrightarchitecturestudio.com

**El Dorado Senior Resort**  
Highway 49 at Koki Lane  
El Dorado, California

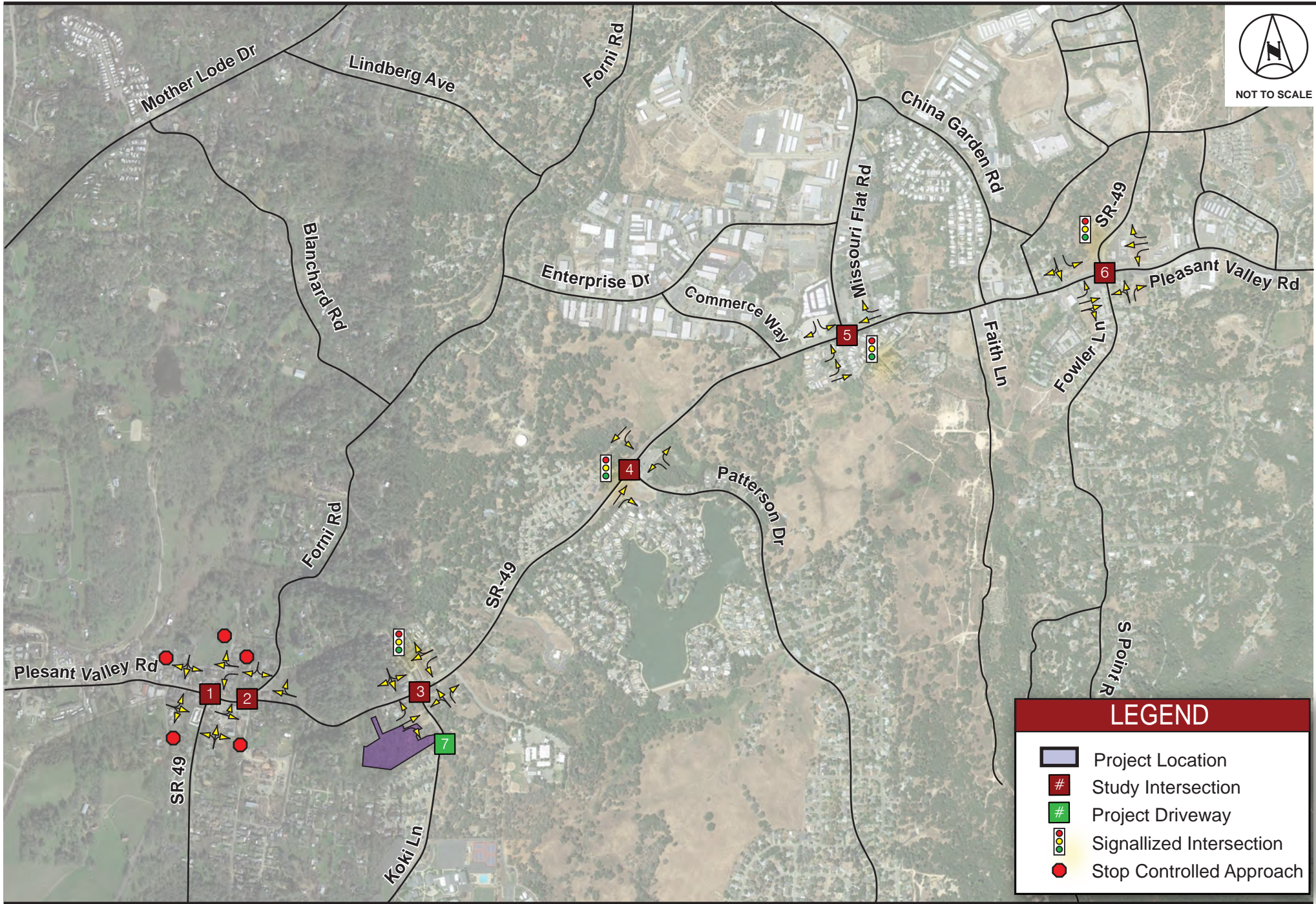
El Dorado Senior Housing LLC  
854 Diablo Road  
Danville, CA 94526  
(281) 772-3772

AUGUST 15, 2016 REVISION 3  
MAY 2016 REVISION 2  
MARCH 2016 REVISION 1  
FEBRUARY 2016  
WAS 17112

SCALE: 1" = 40' - 0"

**A1.0**

# El Dorado Senior Resort - Traffic Impact Analysis





## ASSESSMENT OF PROPOSED PROJECT

### Proposed Project Trip Generation

The proposed project includes an assisted living/memory care facility with 84-beds (14 of which are designated for memory care and 70 of which are designated for assisted living)<sup>1</sup>. Assisted living/memory care facilities provide a living environment with intensive, long-term medical care for seniors with serious health and dementia conditions in a fully-staffed and monitored facility. Due to the nature of these facilities, residents are comprised of older adults who typically do not drive; thus, the site trip generation is anticipated to be low and predominantly composed of employee and visitor trips.

Trip generation for development projects is typically calculated based on rates contained in the Institute of Transportation Engineer’s (ITE) publication, *Trip Generation Manual*. The *Trip Generation Manual* is a standard reference used by jurisdictions throughout the country for the estimation of trip generation potential of proposed developments. A trip is defined in the *Trip Generation Manual* as a single or one-directional vehicle movement with either the origin or destination at the project site. In other words, a trip can be either “to” or “from” the site. In addition, a single customer visit to a site is counted as two trips (i.e., one to and one from the site).

Trip generation for the proposed project was estimated using ITE’s *Trip Generation Manual, 10<sup>th</sup> Edition* based on the “Assisted Living” category (ITE Land Use 254). The proposed project also includes senior apartments (ITE Land Use 252) and single-family residences (ITE Land Use 210), and retail, restaurant, and office buildings (ITE Land Use 820). A 19% internal capture rate<sup>3</sup> was applied to PM peak-hour project volumes according to National Cooperative Highway Research Program (NCHRP) Report 684 methodologies. A 5% internal capture rate was applied for daily and AM peak-hour project volumes according to County standards<sup>4</sup>. The anticipated trip generation for this project is shown in **Table 1**.

**Table 1 – Proposed Project Trip Generation**

Land Use (ITE Code)	Land Use	Size	Units	Daily Trips	AM Peak			PM Peak		
					Total	In	Out	Total	In	Out
210	Single-Family Detached Housing	9	DU	86	7	2	5	9	6	3
252	Senior Adult Housing-Attached	64	DU	238	13	5	8	17	9	8
254	Assisted Living <sup>1</sup>	84	Bed(s)	220	16	10	6	22	8	14
<b>Total Residential Trips</b>				<b>544</b>	<b>36</b>	<b>17</b>	<b>19</b>	<b>48</b>	<b>23</b>	<b>25</b>
820	Shopping Center (Retail, Restaurant, and Office)	7.5	ksf	284	7	4	3	29	14	15
<b>Total Shopping Center Trips</b>				<b>284</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>29</b>	<b>14</b>	<b>15</b>
<b>Total Project Trips</b>				<b>828</b>	<b>43</b>	<b>21</b>	<b>22</b>	<b>77</b>	<b>37</b>	<b>40</b>
Internal Capture*				-41	-2	-1	-1	-15	-7	-8
<b>Total Project Trips</b>				<b>787</b>	<b>41</b>	<b>20</b>	<b>21</b>	<b>62</b>	<b>30</b>	<b>32</b>

Source: *Trip Generation Manual, 10th Edition, ITE*.

\* Internal capture PM peak hour rate is 19%<sup>3</sup> per National Cooperative Highway Research Program (NCHRP) Report 684. Internal capture rate for Daily and AM peak hour is 5% based on County standards<sup>4</sup>.

As shown in **Table 1**, the proposed project is estimated to generate 787 total new daily trips, with 41 new trips occurring during the AM peak-hour, and 62 new trips occurring during the PM peak-hour.

<sup>1</sup> The project site plan (Email from Roger Lewis on 6/4/18) shows 74 assisted living beds, revised from 84 beds.

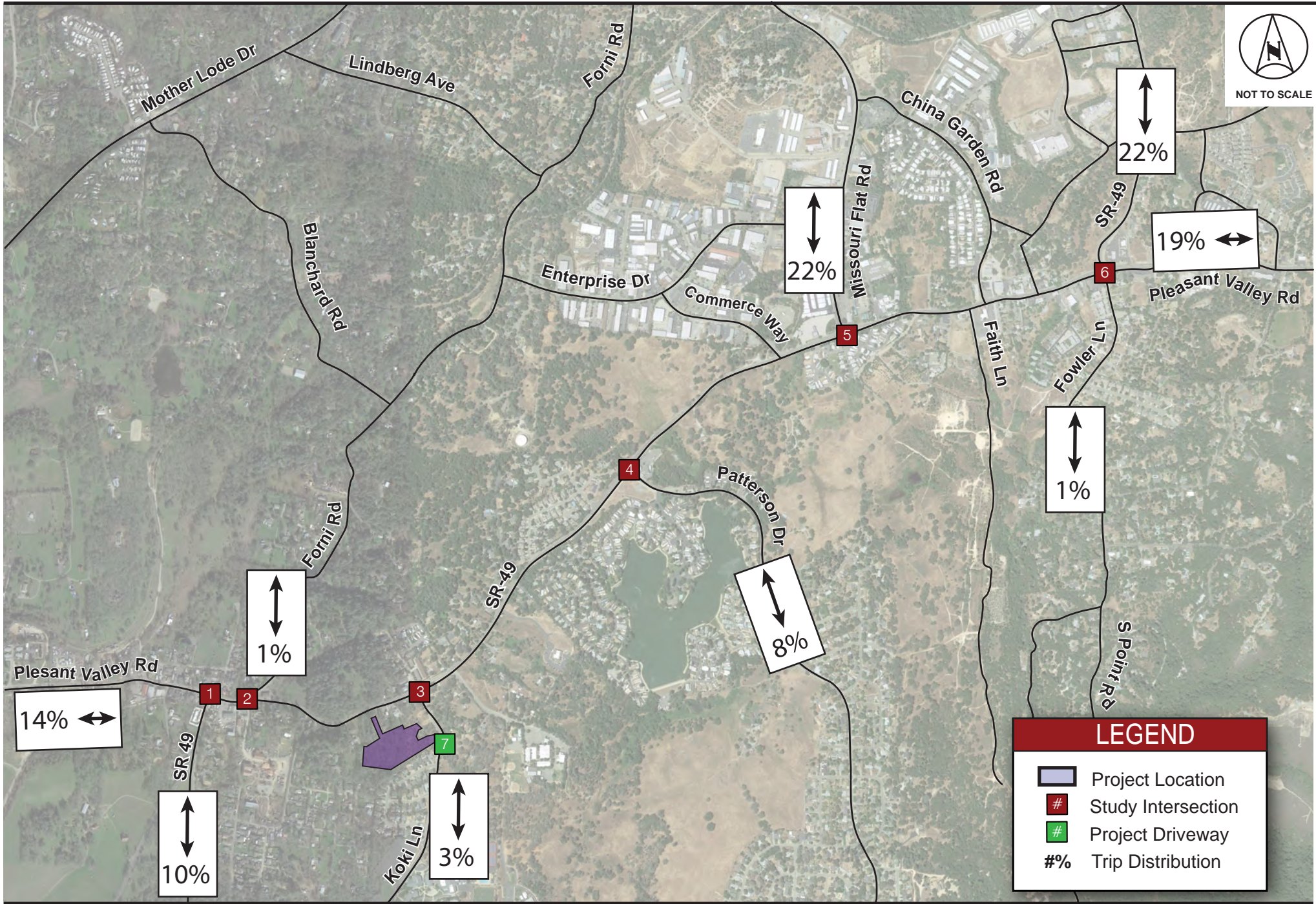
<sup>3</sup> See **Appendix K**.

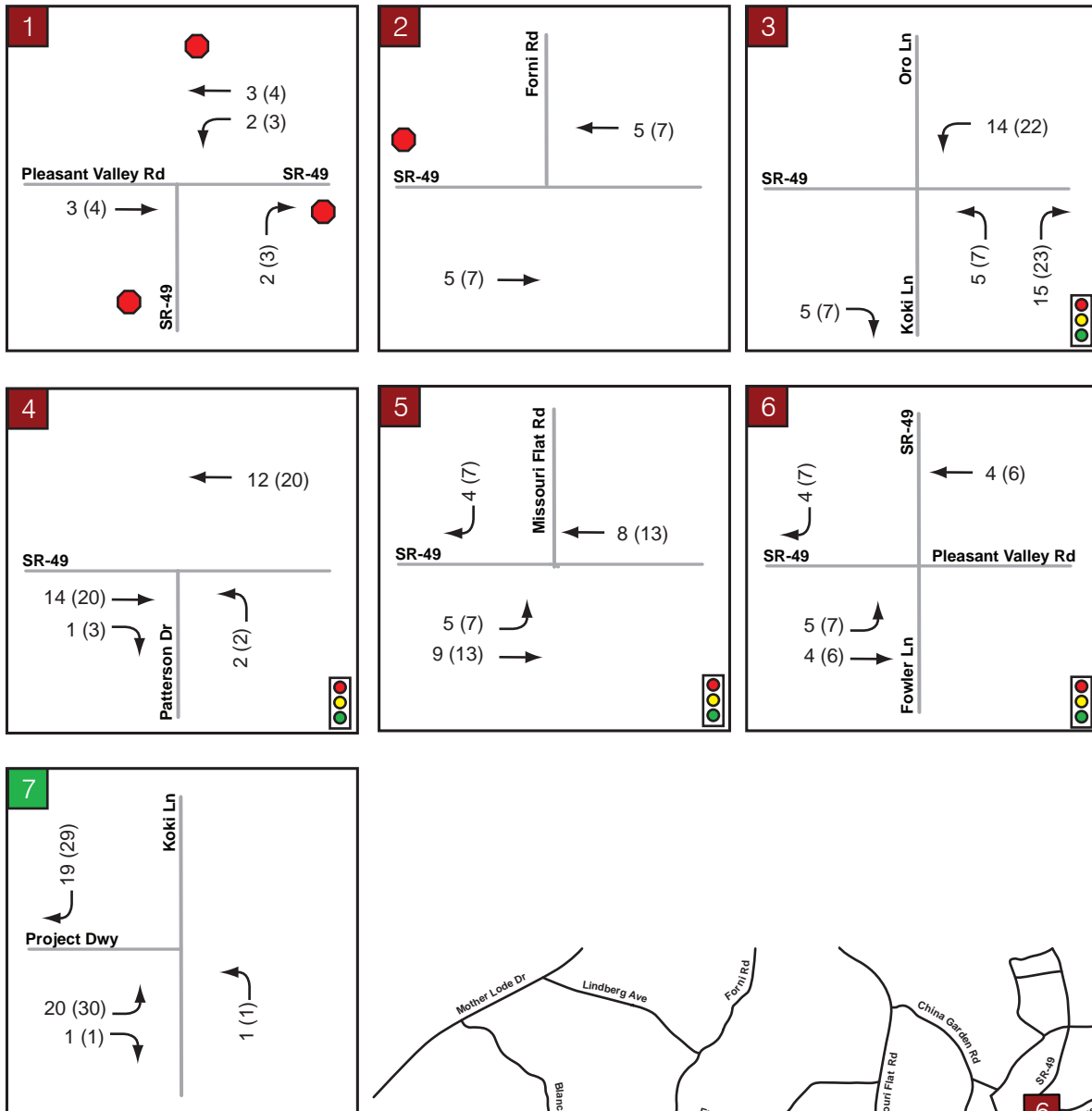
<sup>4</sup> *Review of the El Dorado Senior Resort Trip Generation memo, DKS, June 8, 2018.*

### Proposed Project Trip Distribution

The El Dorado County Travel Demand Model (TDM) was used both as the basis to establish the relative assignment of proposed project trips, and to establish background traffic estimates for analysis scenarios (additional discussion on the specific application of the TDM can be found within each scenario's discussion section). The distribution of project traffic was based on existing traffic volumes and general knowledge of the travel patterns in western El Dorado County. The project trip distribution percentages are illustrated in **Figure 4**. The resulting AM and PM peak-hour traffic volumes attributed to the proposed project are illustrated in **Figure 5**.

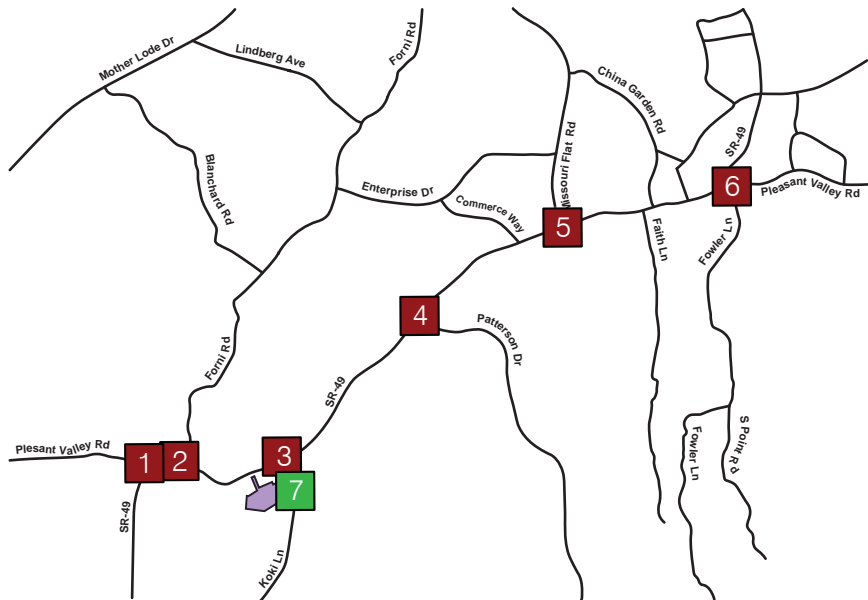
# El Dorado Senior Resort - Traffic Impact Analysis





NOT TO SCALE

LEGEND	
#	Study Intersection
#	Project Driveway
	Project Site
	Signallized Intersection
	Stop Controlled Approach
XX (XX)	AM (PM) Peak-hour Volumes



## TRAFFIC IMPACT ANALYSIS METHODOLOGY

Analysis of transportation facility significant environmental impacts is based on the concept of Level of Service (LOS). The LOS of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual, 2010* (HCM) and appropriate traffic analysis software.

### Intersection Analysis

The HCM includes procedures for analyzing side-street stop controlled (SSSC), all-way stop controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection as a whole. **Table 2** presents intersection LOS definitions as defined in the HCM.

**Table 2 – Intersection Level of Service Criteria**

Level of Service (LOS)	Un-Signalized	Signalized
	Average Control Delay* (sec/veh)	Control Delay per Vehicle (sec/veh)
A	≤ 10	≤ 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

*Source: Highway Capacity Manual, 2010*  
\* Applied to the worst lane/lane group(s) for SSSC

### Roadway Segment Analysis

The HCM also includes procedures for analyzing multi-lane and two-lane roadway segments. For multilane roadways segments, LOS is determined based on the density of the traffic stream. For two-lane highways, the LOS calculation is dependent on the class of the roadway. Class I two-lane highways are highways generally have high speeds, Class II two-lane highways are lower speed highways that typically serve scenic routes or areas of rugged terrain, and Class III two-lane highways typically serve moderately developed areas with higher densities of local traffic and access. Specifically, for Class III highways, the percent of free-flow speed, which is the measure representing the ability of vehicles to travel at the posted speed limit, is used to determine LOS. SR 4 is considered a Class II facility, and Koki Lane is considered a Class III facility, in the project vicinity. The LOS criteria for multi-lane (Class II and III) segments are shown in **Table 3**.

**Table 3 – Two-Lane Roadway Segment (Class II & III) Level of Service Criteria**

Level of Service (LOS)	Percent Free-Flow Speed (PFFS) (%)	Percent Time Spent Following (PTSF) (%)
A	> 91.7	≤ 40
B	> 83.3 – 91.7	> 40 – 55
C	> 75.0 – 83.3	> 55 – 70
D	> 66.7 – 75.0	> 70 – 85
E	≤ 66.7	> 85

*Source: Highway Capacity Manual, 2010*

Based on the above information and direction from County's representative, this LOS analysis was conducted for the study facilities for the following scenarios:

- A. Existing (2018) Conditions
- B. Existing (2018) plus Proposed Project Conditions<sup>+</sup>
- C. Near-Term (2028) Conditions<sup>++</sup>
- D. Near-Term (2028) plus Proposed Project Conditions<sup>+++</sup>
- E. Cumulative (2035) Conditions<sup>++++</sup>
- F. Cumulative (2035) plus Proposed Project Conditions<sup>+++++</sup>

<sup>+</sup> Scenario adds currently proposed project to Existing (2018) Conditions

<sup>++</sup> Scenario established by interpolating between the current El Dorado County Travel Demand Model (TDM) existing and Cumulative year volumes for the study area roadway segments

<sup>+++</sup> Scenario adds currently proposed project to Near-Term (2028) Conditions

<sup>++++</sup> Scenario considers the current El Dorado County Travel Demand Model (TDM) land uses.

<sup>+++++</sup> Scenario adds currently proposed project to Cumulative (2035) Conditions

The following is a discussion of the analyses for these scenarios.

## EXISTING (2018) CONDITIONS

Six (6) new weekday AM and PM peak period intersection turning movement traffic counts were conducted in May 2018 for the study intersections. These counts were conducted between the hours of 6:00 a.m. and 9:00 a.m. and 4:00 p.m. and 7:00 p.m. Existing roadway segments counts were collected over two weekdays in May 2018. It is worth noting that a two percent heavy vehicle factor was incorporated in this, and all subsequent analysis scenarios.

Existing (2018) peak-hour turn movement volumes are presented in **Figure 6**, and the traffic count data sheets are provided in **Appendix A**. Analysis worksheets for this scenario are provided in **Appendix B**. **Table 4** presents the peak-hour intersection operating conditions for this analysis scenario.

**Table 4 – Existing (2018) Intersection Levels of Service**

ID	Intersection	Control	Peak Hour	Existing (2018)	
				Delay (sec)	LOS
1	SR-49 @ Pleasant Valley Road	AWSC	AM	70.3	F
			PM	23.5	C
2	SR-49 @ Forni Road	SSSC	AM	37.2	E
			PM	14.7	B
3	SR-49 @ Koki Lane	Signal	AM	24.1	C
			PM	11.6	B
4	SR-49 @ Patterson Drive	Signal	AM	12.9	B
			PM	13.7	B
5	SR-49 @ Missouri Flat Drive	Signal	AM	12.2	B
			PM	14.2	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	AM	19.9	B
			PM	16.7	B

SSSC control delay is shown for the worst minor approach. **Bold** = Substandard operations based on El Dorado County guidelines.

**Table 5** presents the peak-hour roadway operating conditions for this analysis scenario.

**Table 5 – Existing (2018) Roadway Levels of Service**

Location	Peak-Hour	Analysis Direction	Existing (2018)			
			LOS	PTSF (%)	PFFS (%)	v/c
SR 49 between Forni Rd and Koki Ln	AM	EB	D	76.0		0.35
		WB	C	68.2		0.28
	PM	EB	C	69.8		0.29
		WB	D	76.9		0.38
Koki Ln south of SR 49	AM	NB	C		81.6	0.22
		SB	C		79.2	0.40
	PM	NB	C		81.2	0.32
		SB	B		83.4	0.19

As shown in **Table 4**, the study intersections operate from LOS B to LOS F during the AM and PM peak-hours. As shown in **Table 5**, the study roadway segments operate from LOS B to LOS D during the AM and PM peak-hours.

### EXISTING (2018) PLUS PROPOSED PROJECT CONDITIONS

Peak-hour traffic associated with the proposed project was added to the existing traffic volumes and levels of service were determined at the study intersections. The analysis worksheets for this scenario are provided in **Appendix C. Table 6** provides a summary of the intersection analysis and **Figure 7** provides the AM and PM peak-hour traffic volumes at the study intersections for this analysis scenario.

**Table 6 – Existing (2018) and Existing (2018) plus Proposed Project Intersection Levels of Service**

ID	Intersection	Control	Peak Hour	Existing (2018)		Existing (2018) plus Proposed Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	SR-49 @ Pleasant Valley Road	AWSC	AM	70.3	<b>F</b>	72.0	<b>F</b>
			PM	23.5	C	24.3	C
2	SR-49 @ Forni Road	SSSC	AM	37.2	E	38.3	E
			PM	14.7	B	14.9	B
3	SR-49 @ Koki Lane	Signal	AM	24.1	C	24.6	C
			PM	11.6	B	12.9	B
4	SR-49 @ Patterson Drive	Signal	AM	12.9	B	13.1	B
			PM	13.7	B	13.8	B
5	SR-49 @ Missouri Flat Drive	Signal	AM	12.2	B	12.3	B
			PM	14.2	B	14.7	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	AM	19.9	B	20.5	C
			PM	16.7	B	16.9	B
7	Koki Lane @ Project Site Access Driveway	SSSC	AM	-	-	17.0	C
			PM	-	-	9.8	A

SSSC control delay is shown for the worst minor approach. **Bold** = Substandard operations based on El Dorado County guidelines. Shaded = significant impact.

**Table 7** presents the peak-hour roadway operating conditions for this analysis scenario.

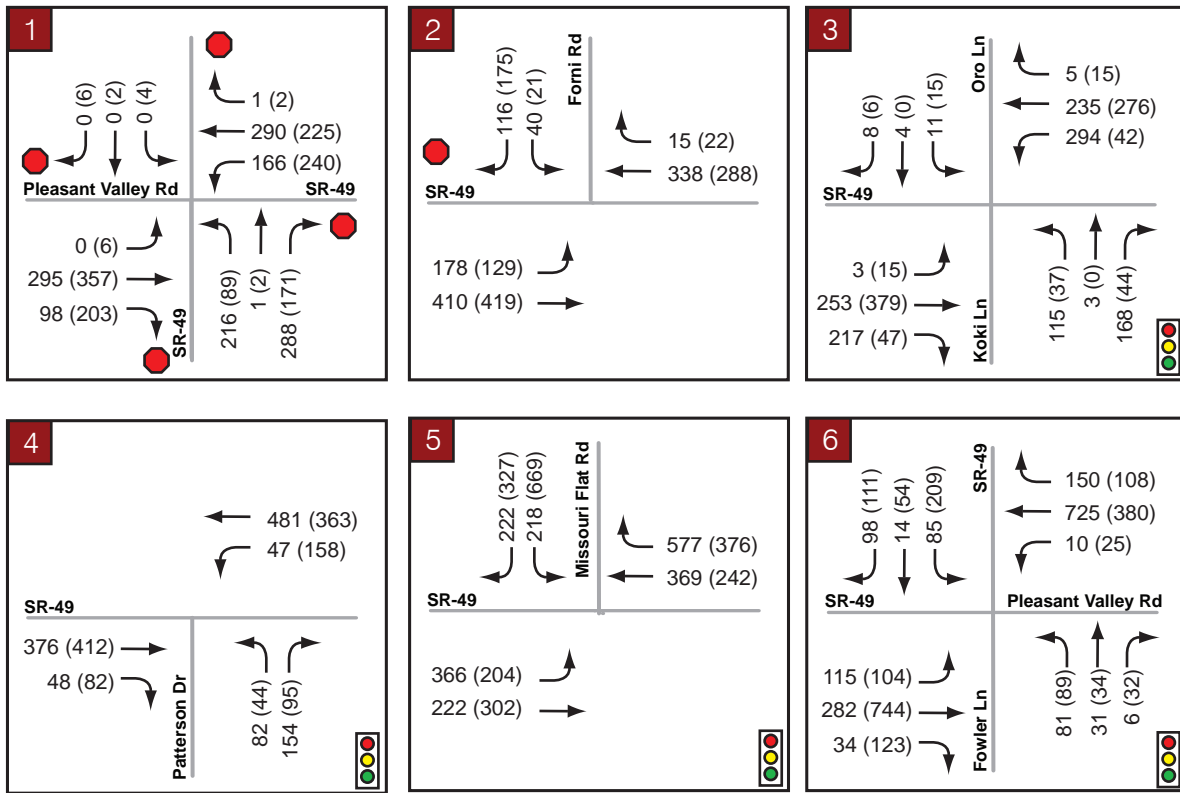
**Table 7 – Existing (2018) and Existing (2018) plus Proposed Project Roadway Levels of Service**

Location	Peak-Hour	Analysis Direction	Existing (2018)				Existing (2018) plus Project			
			LOS	PTSF (%)	PFFS (%)	v/c	LOS	PTSF (%)	PFFS (%)	v/c
SR 49 between Forni Rd and Koki Ln	AM	EB	D	76.0		0.35	D	76.4		0.35
		WB	C	68.2		0.28	C	68.2		0.28
	PM	EB	C	69.8		0.29	D	70.6		0.29
		WB	D	76.9		0.38	D	77.7		0.39
Koki Ln south of SR 49	AM	NB	C		81.6	0.22	C		81.0	0.23
		SB	C		79.2	0.40	C		78.4	0.43
	PM	NB	C		81.2	0.32	C		80.6	0.34
		SB	B		83.4	0.19	C		82.5	0.21

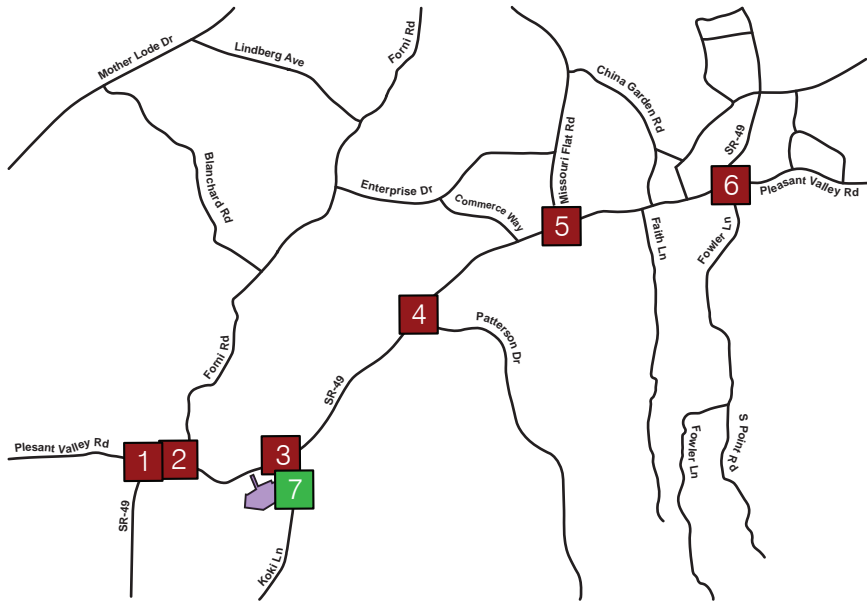
As shown in **Table 6**, the study intersections operate from LOS A to LOS F with the addition of project traffic during the AM and PM peak-hours. As shown in **Table 7**, the study roadway segments operate from LOS B to LOS D in the AM and PM peak-hours.



# El Dorado Senior Resort - Traffic Impact Analysis



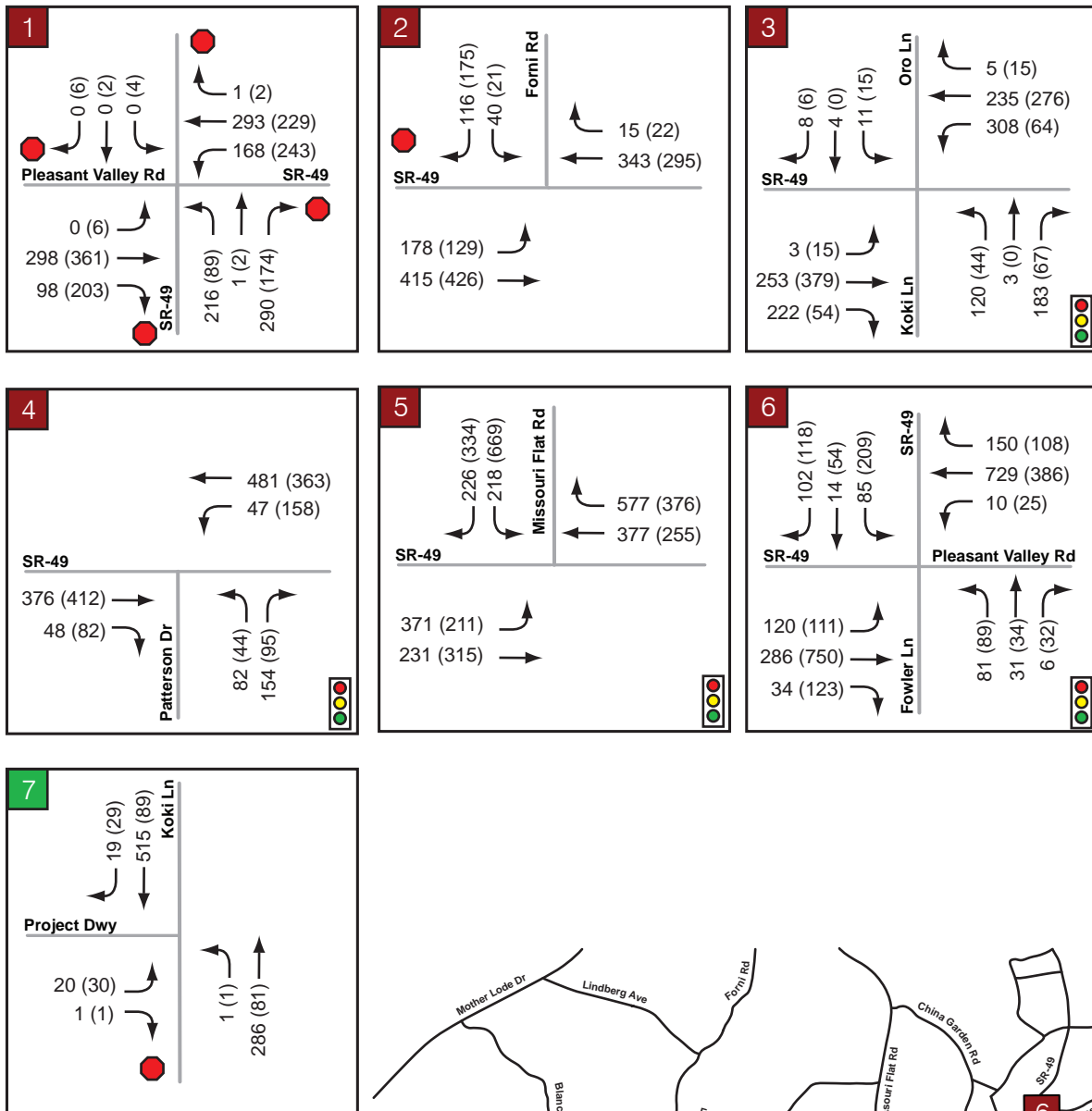
**7** Existing/Cumulative plus Project Conditions only



**LEGEND**

- # Study Intersection
- # Project Driveway
- Project Site
- Signallized Intersection
- Stop Controlled Approach
- XX (XX) AM (PM) Peak-hour Volumes

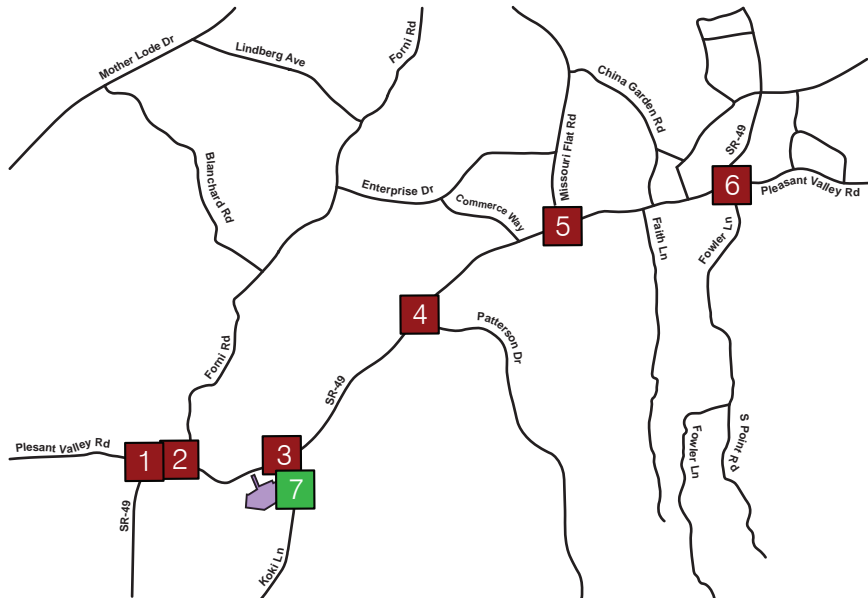
# El Dorado Senior Resort - Traffic Impact Analysis



NOT TO SCALE

**LEGEND**

- Study Intersection
- Project Driveway
- Project Site
- Signalized Intersection
- Stop Controlled Approach
- XX (XX) AM (PM) Peak-hour Volumes



## NEAR-TERM (2028) CONDITIONS

Based on the availability of model data and as directed by the County, traffic volume estimates for the Near-Term (2028) Condition were determined by interpolating selected El Dorado County TDM 2010 and 2035 analysis results based on the most recent version of the model including updates mentioned previously. Specifically, these volumes were achieved by estimating turning movements using 2010 and 2035 land use scenarios and then conducting a straight-line analysis to establish year 2028 turning movement estimates. The difference between the resulting 2028 traffic estimate and the 2010 model results (the growth) was interpolated to represent ten (10) years of growth, and was then added to Existing (2018) traffic volumes to establish base Near-Term (2028) traffic estimates for this study.

Near-Term (2028) conditions include improvements to the transportation system in the project vicinity, such as the construction of the Diamond Springs Parkway between SR 49 and Missouri Flat Road. Construction is anticipated to be completed in 2022.

The analysis worksheets for this scenario are provided in **Appendix D. Table 8** provides a summary of the intersection analysis and **Figure 8** provides the AM and PM traffic volumes for this analysis scenario.

**Table 8 – Near-Term (2028) Intersection Levels of Service**

ID	Intersection	Control	Peak Hour	Near-Term (2028)	
				Delay (sec)	LOS
1	SR-49 @ Pleasant Valley Road	AWSC	AM	69.9	<b>F</b>
			PM	40.3	E
2	SR-49 @ Forni Road	SSSC	AM	35.0	E
			PM	16.6	C
3	SR-49 @ Koki Lane	Signal	AM	24.3	C
			PM	12.8	B
4	SR-49 @ Patterson Drive	Signal	AM	14.6	B
			PM	15.7	B
5	SR-49 @ Missouri Flat Drive	Signal	AM	14.3	B
			PM	16.7	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	AM	27.9	C
			PM	20.5	C

SSSC control delay is shown for the worst minor approach. **Bold** = Substandard operations based on El Dorado County guidelines.

**Table 9** presents the peak-hour roadway operating conditions for this analysis scenario.

**Table 9 – Near-Term (2028) Roadway Levels of Service**

Location	Peak-Hour	Analysis Direction	Near-Term (2028)			
			LOS	PTSF (%)	PFFS (%)	v/c
SR 49 between Forni Rd and Koki Ln	AM	EB	D	73.9		0.32
		WB	C	68.1		0.41
	PM	EB	D	70.8		0.30
		WB	D	78.5		0.40
Koki Ln south of SR 49	AM	NB	C		83.0	0.19
		SB	C		80.8	0.34
	PM	NB	C		82.4	0.28
		SB	B		84.4	0.16

As shown in **Table 8**, the study intersections operate from LOS B to LOS E during the AM and PM peak-hours. As shown in **Table 9**, the study roadway segments operate from LOS B to LOS D in the AM and PM peak-hours.

### NEAR-TERM (2028) PLUS PROPOSED PROJECT CONDITIONS

Peak-hour traffic associated with the proposed project was added to the Near-Term (2028) traffic volumes, and levels of service were determined at the study facilities. The analysis worksheets for this scenario are provided in **Appendix E. Table 10** provides a summary of the intersection operating conditions for this analysis scenario. **Figure 9** provides the AM and PM traffic volumes for this analysis scenario.

**Table 10 – Near-Term (2028) and Near-Term (2028) plus Proposed Project Intersection Levels of Service**

ID	Intersection	Control	Peak Hour	Near-Term (2028)		Near-Term (2028) plus Proposed Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	SR-49 @ Pleasant Valley Road	AWSC	AM	69.9	F	71.9	F
			PM	40.3	E	41.9	E
2	SR-49 @ Forni Road	SSSC	AM	35.0	E	36.2	E
			PM	16.6	C	16.9	C
3	SR-49 @ Koki Lane	Signal	AM	24.3	C	24.7	C
			PM	12.8	B	14.2	B
4	SR-49 @ Patterson Drive	Signal	AM	14.6	B	14.7	B
			PM	15.7	B	16.0	B
5	SR-49 @ Missouri Flat Drive	Signal	AM	14.3	B	12.5	B
			PM	16.7	B	17.4	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	AM	27.9	C	20.1	C
			PM	20.5	C	20.8	C
7	Koki Lane @ Project Site Access Driveway	SSSC	AM	-	-	17.9	C
			PM	-	-	10.2	B

SSSC control delay is shown for the worst minor approach. **Bold** = Substandard operations based on El Dorado County guidelines.

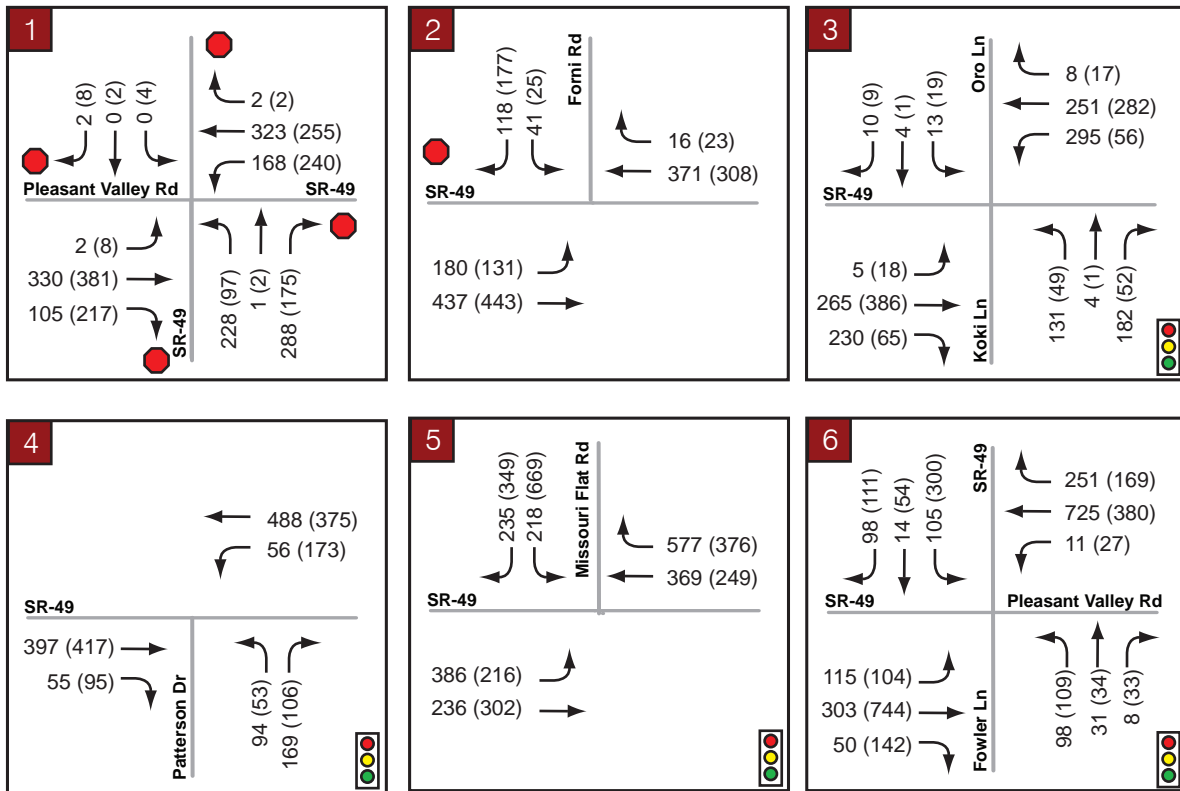
**Table 11** presents the peak-hour roadway operating conditions for this analysis scenario.

**Table 11 – Near-Term (2028) and Near-Term (2028) plus Proposed Project Roadway Levels of Service**

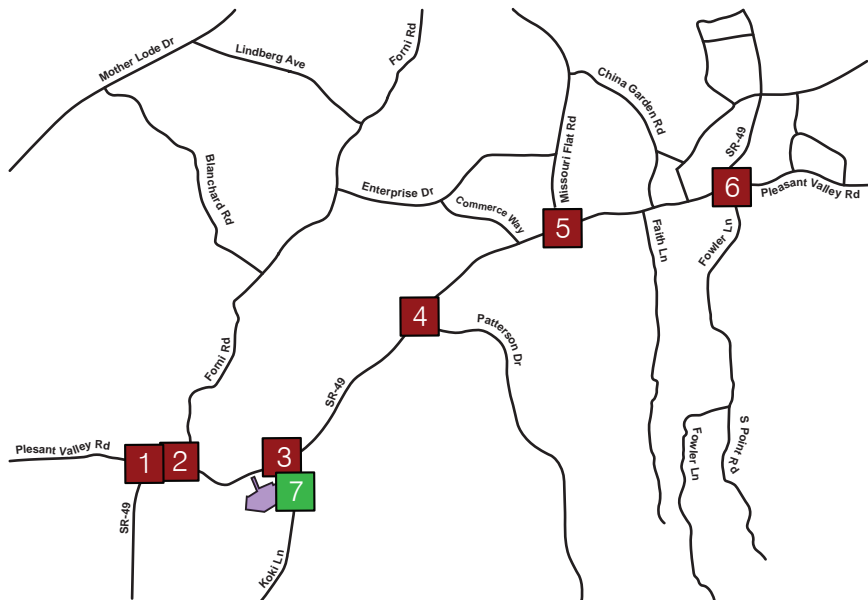
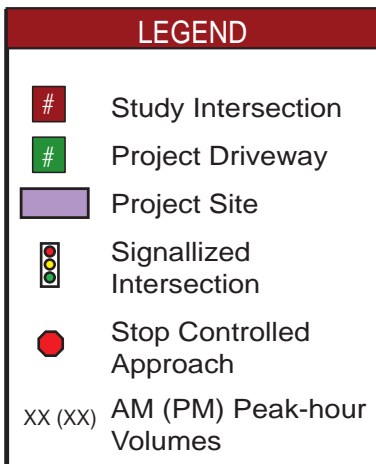
Location	Peak-Hour	Analysis Direction	Near-Term (2028)				Near-Term (2028) plus Project			
			LOS	PTSF (%)	PFFS (%)	v/c	LOS	PTSF (%)	PFFS (%)	v/c
SR 49 between Forni Rd and Koki Ln	AM	EB	D	73.9		0.32	D	75.0		0.32
		WB	C	68.1		0.41	C	70.3		0.30
	PM	EB	D	70.8		0.30	D	71.9		0.30
		WB	D	78.5		0.40	D	80.2		0.40
Koki Ln south of SR 49	AM	NB	C		83.0	0.19	C		82.6	0.21
		SB	C		80.8	0.34	C		80.4	0.35
	PM	NB	C		82.4	0.28	C		81.9	0.29
		SB	B		84.4	0.16	B		83.8	0.18

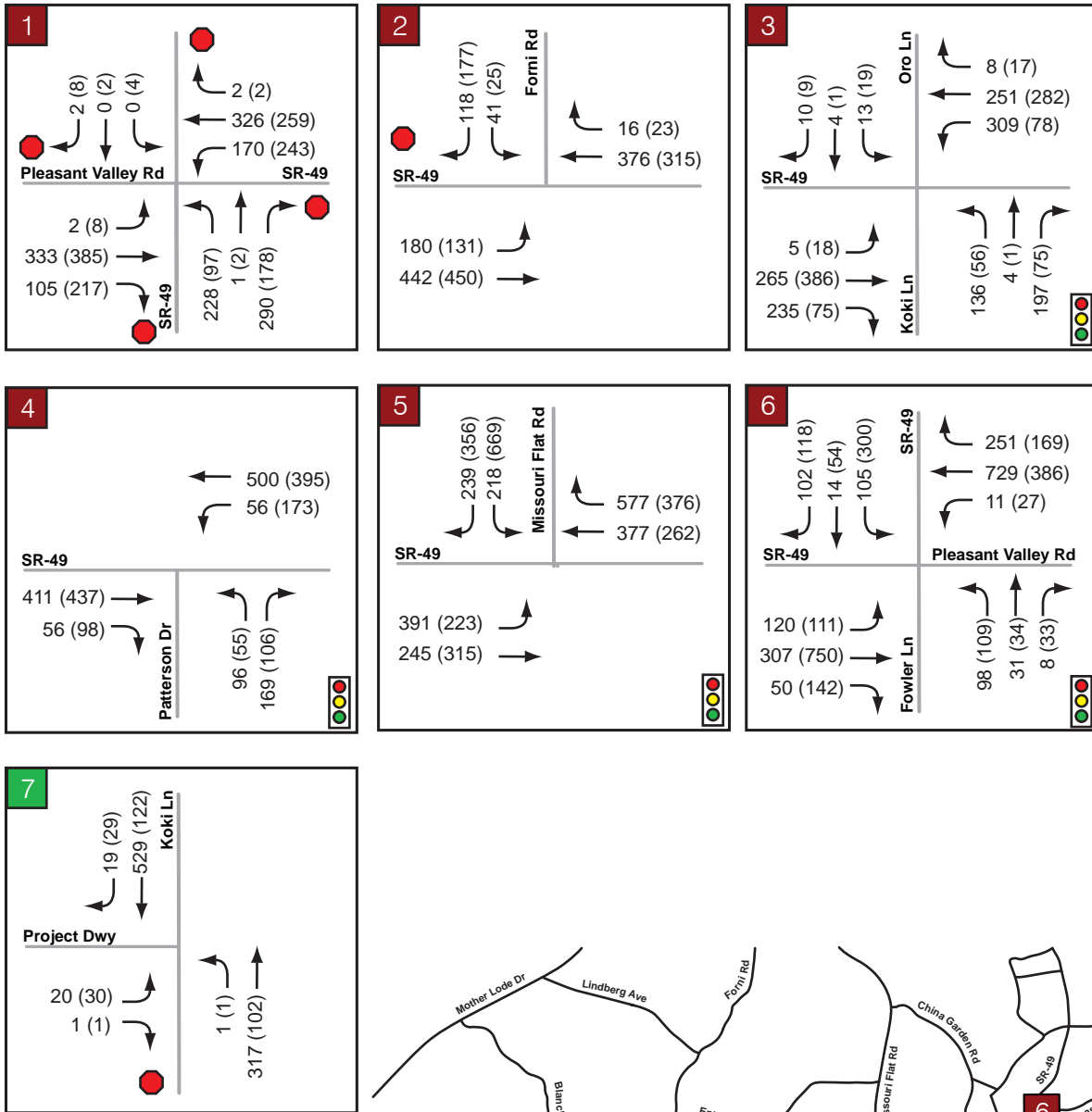
As shown in **Table 10**, the study intersections operate from LOS B to LOS E during the AM and PM peak-hours. As shown in **Table 11**, the study roadway segments operate from LOS B to LOS D in the AM and PM peak-hours.

# El Dorado Senior Resort - Traffic Impact Analysis



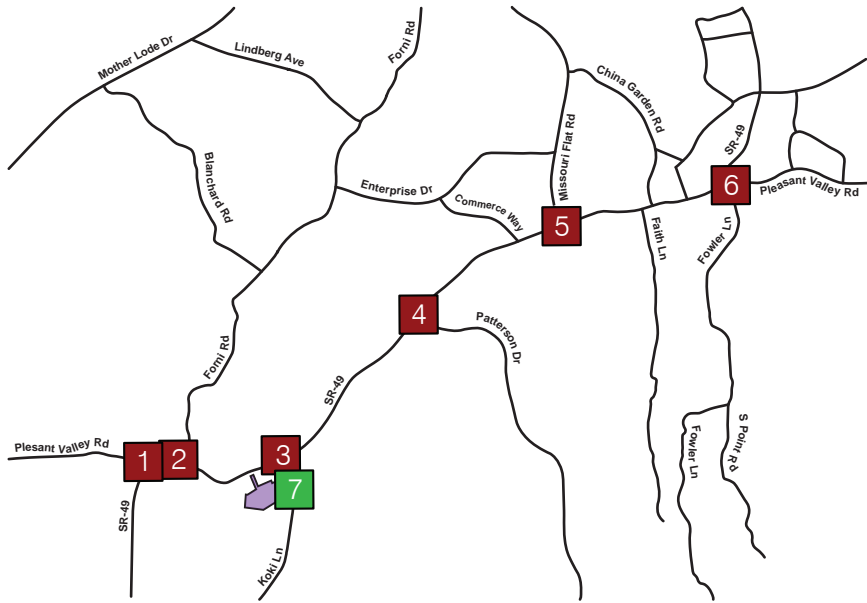
NOT TO SCALE





**LEGEND**

- # Study Intersection
- # Project Driveway
- Project Site
- Signalized Intersection
- Stop Controlled Approach
- XX (XX) AM (PM) Peak-hour Volumes



## CUMULATIVE (2035) CONDITIONS

Consistent with the traffic forecasting methodology specified by a representative of the County, traffic projections for this study are based on the County’s current Travel Demand Model (TDM) and recently approved 20-year growth projections. Intersection turning movement volumes at the intersections of SR 49 at Missouri Flat Drive (Intersection #5) and Pleasant Valley Road (Intersection #6) are consistent with cumulative (2035) plus project volumes as presented in the *Diamond Springs Village Apartments*<sup>5</sup> study (2017).

Cumulative conditions include improvements to the transportation system in the project vicinity, such as the construction of the Diamond Springs Parkway, and improvements to the intersection of SR 49/Fowler Lane at Pleasant Valley Road. Planned developments in the project vicinity include the Diamond Springs Village Apartments and the El Dorado County Sheriff Headquarters Facility in Diamond Springs. Cumulative (2035) lane geometries are presented in **Figure 10**. The analysis worksheets for this scenario are provided in **Appendix F**.

**Table 12** provides a summary of the intersection analysis and **Figure 11** provides the AM and PM traffic volumes for this analysis scenario.

**Table 12–** Cumulative (2035) Intersection Levels of Service

ID	Intersection	Control	Peak Hour	Cumulative (2035)	
				Delay (sec)	LOS
1	SR-49 @ Pleasant Valley Road	AWSC	AM	96.5	<b>F</b>
			PM	64.1	<b>F</b>
2	SR-49 @ Forni Road	SSSC	AM	37.3	E
			PM	20.1	C
3	SR-49 @ Koki Lane	Signal	AM	24.8	C
			PM	15.0	B
4	SR-49 @ Patterson Drive	Signal	AM	15.1	B
			PM	16.3	B
5	SR-49 @ Missouri Flat Drive	Signal	AM	11.1	B
			PM	18.3	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	AM	37.2	D
			PM	46.3	D

Control delay for worst minor approach (worst minor movement) for SSSC. **Bold** = Substandard per County

**Table 13** presents the peak-hour roadway operating conditions for this analysis scenario.

<sup>5</sup> *Diamond Springs Village Apartments*, Fehr and Peers, 2017.



**Table 13 – Cumulative (2035) Roadway Levels of Service**

Location	Peak-Hour	Analysis Direction	Cumulative (2035)			
			LOS	PTSF (%)	PFFS (%)	v/c
SR 49 between Forni Rd and Koki Ln	AM	EB	D	76.4		0.34
		WB	C	69.5		0.31
	PM	EB	D	72.1		0.32
		WB	D	80.4		0.43
Koki Ln south of SR 49	AM	NB	C		82.5	0.20
		SB	C		80.1	0.36
	PM	NB	C		81.8	0.30
		SB	B		83.8	0.18

As shown in **Table 12**, the study intersections operate from LOS B to LOS F during the AM and PM peak-hours. As shown in **Table 13**, the study roadway segments operate from LOS B to LOS D in the AM and PM peak-hours.

### CUMULATIVE (2035) PLUS PROPOSED PROJECT CONDITIONS

Peak-hour traffic associated with the proposed project was added to the Cumulative (2035) traffic volumes, and levels of service were determined at the study facilities. The analysis worksheets for this scenario are provided in **Appendix G**.

**Table 14** provides a summary of the intersection operating conditions for this analysis scenario. **Figure 12** provides the AM and PM traffic volumes for this analysis scenario.

**Table 14 – Cumulative (2035) and Cumulative (2035) plus Proposed Project Intersection Levels of Service**

ID	Intersection	Control	Peak Hour	Cumulative (2035)		Cumulative (2035) Plus Proposed Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	SR-49 @ Pleasant Valley Road	AWSC	AM	96.5	<b>F</b>	98.9	<b>F</b>
			PM	64.1	<b>F</b>	66.4	<b>F</b>
2	SR-49 @ Forni Road	SSSC	AM	37.3	E	37.8	E
			PM	20.1	C	20.6	C
3	SR-49 @ Koki Lane	Signal	AM	24.8	C	25.1	C
			PM	15.0	B	16.8	B
4	SR-49 @ Patterson Drive	Signal	AM	15.1	B	15.3	B
			PM	16.3	B	16.6	B
5	SR-49 @ Missouri Flat Drive	Signal	AM	11.1	B	11.3	B
			PM	18.3	B	19.0	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	AM	37.2	D	38.1	D
			PM	46.3	D	48.7	D
7	Koki Lane @ Project Site Access Driveway	SSSC	AM	-	-	19.3	C
			PM	-	-	10.8	B

SSSC control delay is shown for the worst minor approach. **Bold** = Substandard operations based on El Dorado County guidelines. Shaded = significant impact.

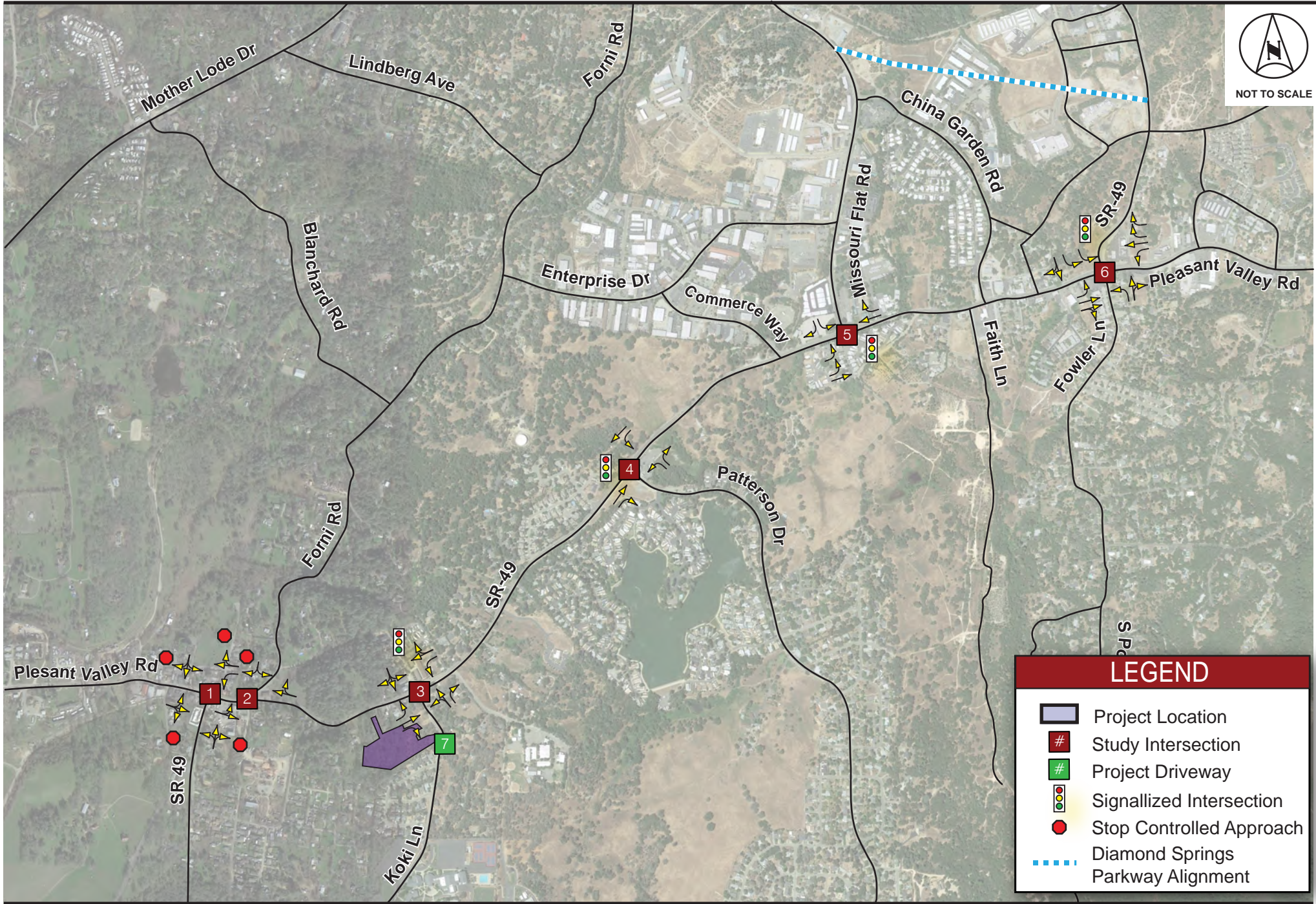
**Table 15** presents the peak-hour roadway operating conditions for this analysis scenario.

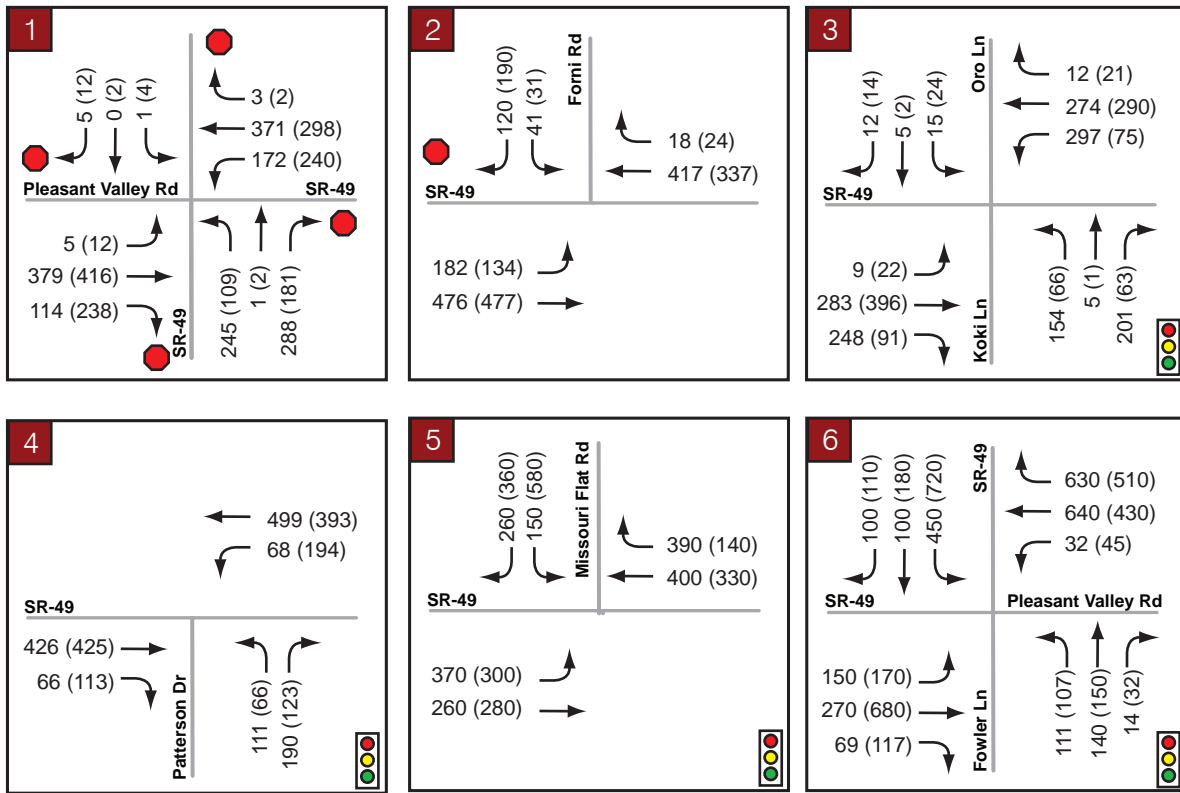
**Table 15– Cumulative (2035) and Cumulative (2035) plus Proposed Project Roadway Levels of Service**

Location	Peak-Hour	Analysis Direction	Cumulative (2035)				Cumulative (2035) plus Project			
			LOS	PTSF (%)	PFFS (%)	v/c	LOS	PTSF (%)	PFFS (%)	v/c
SR 49 between Forni Rd and Koki Ln	AM	EB	D	76.4		0.34	D	76.2		0.34
		WB	C	69.5		0.31	D	70.3		0.31
	PM	EB	D	72.1		0.32	D	71.9		0.32
		WB	D	80.4		0.43	D	80.2		0.43
Koki Ln south of SR 49	AM	NB	C		82.5	0.20	C		82.0	0.22
		SB	C		80.1	0.36	C		79.8	0.38
	PM	NB	C		81.8	0.30	C		81.3	0.32
		SB	B		83.8	0.18	C		83.2	0.20

As shown in **Table 14**, the study intersections operate from LOS B to LOS F during the AM and PM peak-hours. As shown in **Table 15**, the study roadway segments operate from LOS B to LOS D in the AM and PM peak-hours.

El Dorado Senior Resort - Traffic Impact Analysis



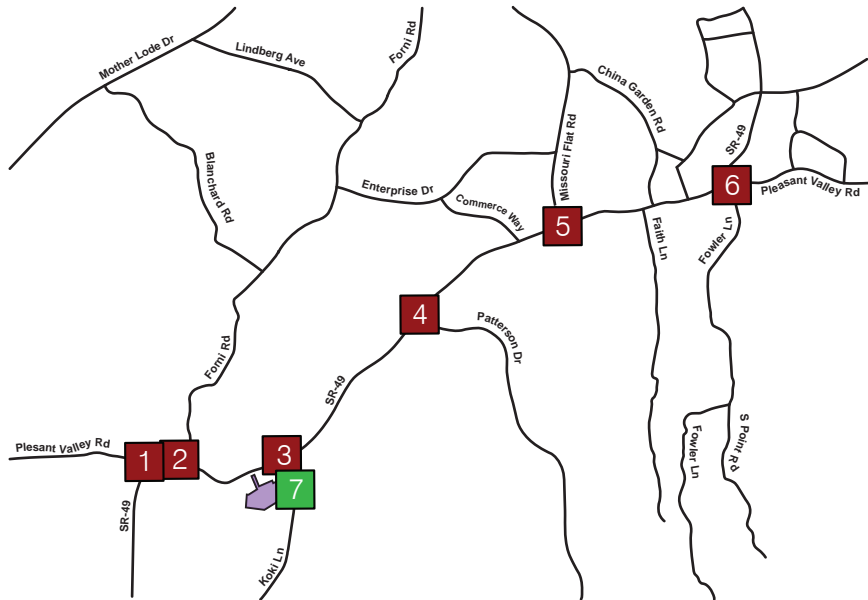


**7**

Existing/Cumulative plus Project Conditions only



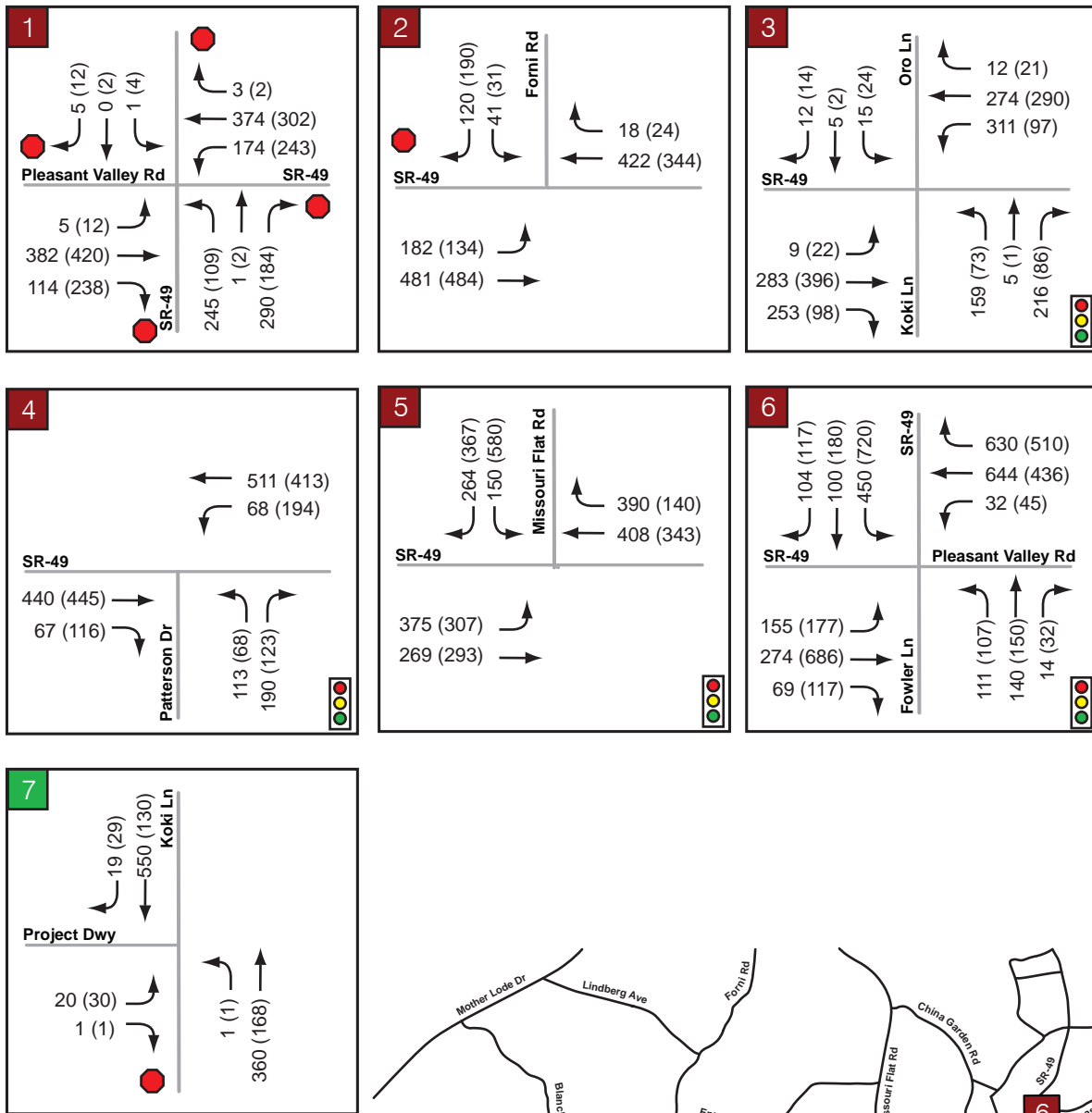
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**LEGEND**

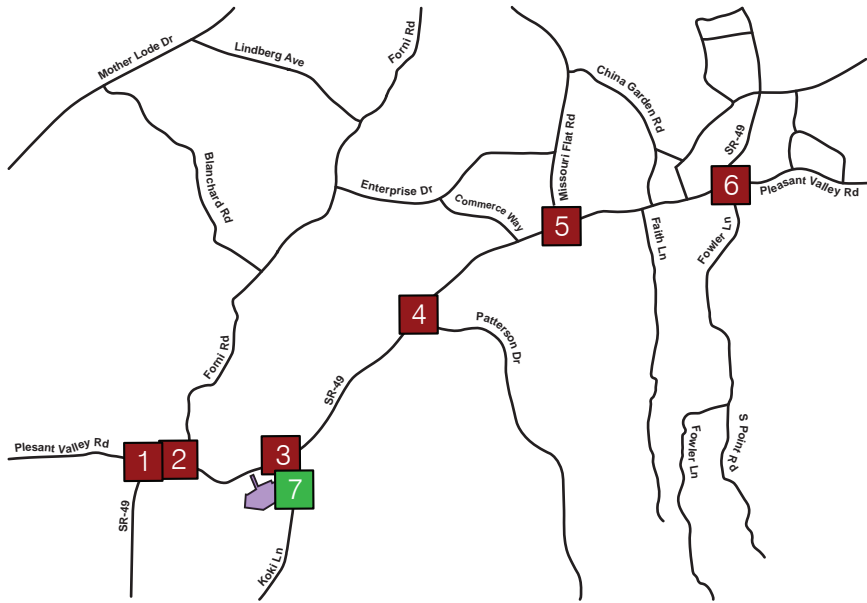
- # Study Intersection
- # Project Driveway
- Project Site
- Signal Control
- Stop Control

XX (XX) AM (PM) Peak-hour Volumes



**LEGEND**

- # Study Intersection
- # Project Driveway
- Project Site
- Signalized Intersection
- Stop Controlled Approach
- XX (XX) AM (PM) Peak-hour Volumes



## IMPACTS AND MITIGATION

### Standards of Significance

Project impacts were determined by comparing conditions with the proposed project to those without the project. Impacts for intersections are created when traffic from the proposed project forces the LOS to fall below a specific threshold.

The County's standards<sup>6</sup> specify the following:

"Level of Service (LOS) for County-maintained roads and State highways within the unincorporated areas of the County *shall not be worse than **LOS E in the Community Regions.***" (El Dorado County General Plan Policy TC-Xd). The study facilities are located within the El Dorado Hills Community Region.

"If a project causes the peak-hour LOS or volume/capacity ratio on a county road or State highway that would otherwise meet the County standards (without the project) to exceed the [given] values, then the impact shall be considered significant."

"If any county road or state highway fails to meet the [given] standards for peak-hour LOS or volume/capacity ratios without the proposed project, and the project will worsen conditions on the road or highway, then the impact shall be considered significant." According to General Plan Policy TC- Xe<sup>7</sup>, 'worsen' is defined as "a 2 percent increase in traffic during the a.m. peak-hour, p.m. peak-hour, or daily, or the addition of 100 or more daily trips, or the addition of 10 or more trips during the a.m. peak-hour or the p.m. peak-hour."

### Impacts and Mitigation

#### Existing (2018) plus Proposed Project Conditions

Intersections:

As reflected in **Table 66**, the addition of the proposed project results in a significant impact as defined by the County. The mitigation analysis worksheets for this scenario are provided in **Appendix H**.

Impacts:

#### **1. Intersection #1: SR 49 @ Pleasant Valley Road**

This intersection operates at LOS F in the AM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during the AM peak-hour. *This is a significant impact.*

Mitigations:

#### **1. Intersection #1: SR 49 @ Pleasant Valley Road**

The impact can be mitigated with a traffic signal. If constructed by others or added to the 10-year CIP prior to residential development levels in the project site that would require this mitigation, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement. If not constructed by others, the applicant would be responsible for implementing this improvement consistent with General Plan Goal TC-X and supporting Policy TC-Xf to ensure that transportation improvements are implemented concurrent with approved residential development. If constructed by the applicant, the applicant may be subject to reimbursement through the County's traffic impact mitigation fee program. This improvement is on a facility under the jurisdiction of Caltrans. Therefore, the timing of the implementation will be subject to Caltrans approval. The project proportional share of traffic entering the intersection is 0.7% in the AM peak hour under Existing plus Proposed Project conditions.

<sup>6</sup> *Transportation Impact Study Guidelines*, El Dorado County Community Development Agency, November 2014.

<sup>7</sup> *El Dorado County General Plan, Transportation and Circulation Element*, July 2004.

Near-Term (2028) plus Proposed Project Conditions

As reflected in **Table 10**, the addition of the proposed project results in a significant impact as defined by the County. The mitigation analysis worksheets for this scenario are provided in **Appendix H**.

Impacts:

**2. Intersection #1: SR 49 @ Pleasant Valley Road**

This intersection operates at LOS F in the AM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during the AM peak-hour. *This is a significant impact.*

Mitigations:

**2. Intersection #1: SR 49 @ Pleasant Valley Road**

The impact can be mitigated with a traffic signal. If constructed by others or added to the 10-year CIP prior to residential development levels in the project site that would require this mitigation, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement. If not constructed by others, the applicant would be responsible for implementing this improvement consistent with General Plan Goal TC-X and supporting Policy TC-Xf to ensure that transportation improvements are implemented concurrent with approved residential development. If constructed by the applicant, the applicant may be subject to reimbursement through the County's traffic impact mitigation fee program. This improvement is on a facility under the jurisdiction of Caltrans. Therefore, the timing of the implementation will be subject to Caltrans approval. The project proportional share of growth of traffic entering the intersection is about 9.6% in the AM peak hour under Near Term (2028) plus Proposed Project conditions.

Cumulative (2035) plus Proposed Project Conditions

As reflected in **Table 14**, the addition of the proposed project results in a significant impact as defined by the County. The mitigation analysis worksheets for this scenario are provided in **Appendix H**.

Impacts:

**3. Intersection #1: SR 49 @ Pleasant Valley Road**

This intersection operates at LOS F in the AM and PM peak-hours without the project, and the project contributes more than 10 peak-hour trips to the intersection during the AM and PM peak-hours. *This is a significant impact.*

Mitigations:

**3. Intersection #1: SR 49 @ Pleasant Valley Road**

The impact can be mitigated with a traffic signal. The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available.

Therefore, appropriate mitigation, as determined by the CDS, would include payment of traffic mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others. This improvement is on a facility under the jurisdiction of Caltrans. Therefore, the timing of the implementation will be subject to Caltrans approval. The project proportional share of growth of traffic entering the intersection is about 4.2% in the AM peak hour and 6.3% in the PM peak hour under Cumulative (2035) plus Proposed Project conditions.

## OTHER CONSIDERATIONS

### Peak-Hour Traffic Signal Warrant Evaluation

A planning level assessment of the need for traffic signalization was performed for the un-signalized study intersections. This evaluation was performed consistently with the peak-hour warrant methodologies noted in Section 4C of the *California Manual on Uniform Traffic Control Devices (CMUTCD), 2014 Edition*. A summary of the peak-hour warrant results is presented in **Table 16**.

**Table 16 – Traffic Signal Warrant Analysis Results**

#	Intersection	Analysis Scenario					
		Existing (2018)	Existing (2018) plus Project	Near-Term (2028)	Near-Term (2028) plus Project	Cumulative (2035)	Cumulative (2035) plus Project
1	SR 49 @ Pleasant Valley Road	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
2	SR 49 @ Forni Road	No / No	No / No	No / No	No / No	No / Yes	No / Yes

Results are presented in **AM / PM format**. Note: Peak-hour warrant is satisfied if Condition A or B is met.

As shown in **Table 16**, Intersection #1 (SR 49 @ Pleasant Valley Road) satisfies the peak-hour signal warrant with and without the addition of the proposed project under all analysis scenarios, and Intersection #2 (SR 49 @ Forni Road) satisfies the peak-hour signal warrant under Cumulative conditions.

### Sight Distance Evaluation and Minimum Required Throat Depth (MRTD) Evaluation

The project site plan (**Figure 2**) presents a project driveway providing access onto Koki Road, south of SR 49. It is recommended that landscaping and trees be placed in such a manner so as to not obstruct line of sight, especially for southbound and eastbound travelers. The project driveway should provide at least 50-foot or MRTD. This is the throat depth required based on the methodology presented in Estimation of Maximum Queue Lengths at Unsignalized Intersections (ITE Journal, November 2001). According to the project site plan, there appears to be adequate MRTD.

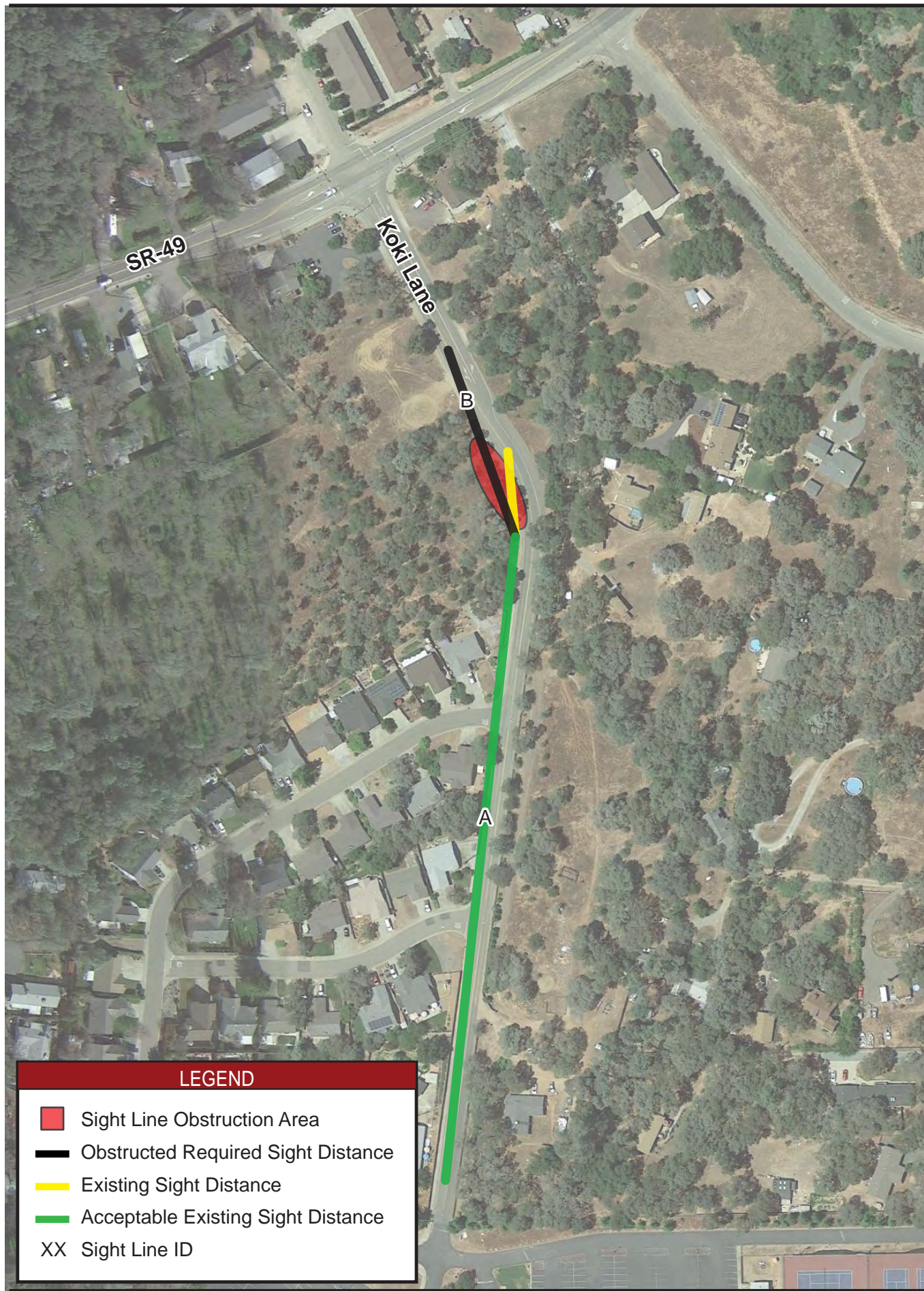
A sight distance triangle calculation was completed for the Project Driveway intersection at Koki Lane. The driveway provides acceptable sight distance for vehicles turning left (looking right). The driveway does not provide acceptable sight distance for vehicles turning right and left (looking left), due to obstructions which include trees and vegetation along the western side of Koki Lane. With the removal of these obstructions, the project driveway would achieve acceptable sight distance for right and left turns. **Table 17** and **Figure 13** presents the sight distance triangle calculations and diagram, respectively.

**Table 17 – Sight Distance Triangle Calculations**

ID	Approach	Movement Direction	Observed SD (ft.)	Required ISD (ft.)	Status	Mitigated** SD (ft.)
A	Eastbound (Project Driveway)	Left (looking right)	930	335	Acceptable	N/A
B		Left/Right (looking left)	120	290	Obstructed <sup>+</sup>	> 290

*Notes:*  
SD = Sight Distance, ISD = Intersection Sight Distance  
Design speed of 30 mph assumed along Koki Lane (25 mph posted speed limit).  
<sup>+</sup> Obstructed sight distance refers to the existing condition in which the sight triangle contains an intermediate obstruction(s). When the intermediate obstruction(s) is mitigated, the required ISD is achievable.  
<sup>\*\*</sup> Mitigated Sight Distance refers to the condition anticipated to be achieved with removal or maintenance of trees and vegetation along the western side of Koki Lane.





### Site Plan, Access, and On-site Circulation Evaluation

The site plan for the proposed project (**Figure 2**) was qualitatively reviewed for general access and on-site circulation. According to the site plan, access to the site will be provided via one (1) driveway along Koki Lane east of the project site, and an emergency vehicle access only driveway along SR 49 north of the project site. Level of service and delay data was previously reported for the project driveway intersection (Intersection #7). This access point, as well as the on-site circulation system provides adequate access to/from both Koki Lane and SR 49.

In addition, *Fire Safe Regulations*<sup>8</sup> state that on-site roadways shall “provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency...” All project roadways shall be designed and constructed in accordance with these requirements.

An all-weather emergency vehicle access road is being proposed connecting the El Dorado Senior Resort project to Highway 49. The access connection is designed per the El Dorado County Department of Transportation Standard Plan 103C – “Multi Unit Residential Driveway Connection”. This driveway serves as a second point of ingress/egress to the proposed site for emergency vehicles. An automatic access gate will be installed per the El Dorado County Fire District Standard #B-002 to prevent civilian vehicular traffic from entering the project site. Per the El Dorado County Fire District Ordinance No. 2016-02 Emergency Vehicle Access roads (EVA) on-site were designed to be a minimum 20 feet in unobstructed width to service the proposed facilities.

### Intersection Queuing Evaluation

Vehicle queuing for the study intersections was evaluated. For the queuing analysis, the anticipated vehicle queues for critical movements at these intersections were evaluated. The calculated vehicle queues were compared to actual or anticipated vehicle storage/segment lengths. Results of the queuing evaluation are presented in **Table 18**. Analysis sheets that include the anticipated vehicle queues are presented in Appendices B, C, E, and F. As presented in **Table 18**, the addition of the proposed project adds additional queuing to Intersection #3 (SR-49 @ Koki Lane), which already exceeds westbound left-turn lane storage capacity in the AM peak-hour under Existing conditions. The project proportional share of traffic entering the intersection is 2.9% in the AM peak hour under Existing plus Proposed Project conditions. The analysis worksheets for this scenario are provided in **Appendix I**.

<sup>8</sup> *Fire Safe Regulations*, Title 14 Natural Resources, Division 1.5 Department of Forestry, Chapter 7 – Fire Protection, Subchapter 2 SRA Safe Regulations, Article 2 Emergency Access, El Dorado County Building Department.

**Table 18 – Intersection Queuing Evaluation Results for Select Locations**

Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95 <sup>th</sup> % Queue (ft)	Available Storage (ft)	95 <sup>th</sup> % Queue (ft)
<b>#1 SR-49 @ Pleasant Valley Road</b>		<b>WBL</b>			
	Existing (2018)	75	60	75	60
	Existing (2018) plus Project		63		63
	<i>Existing (2018) plus Project Mitigated</i>		63		63
	Near-Term (2028)		58		73
	Near-Term (2028) plus Project		58		73
	Cumulative (2035)		60		73
	Cumulative (2035) plus Project		60		75
<b>#3 SR-49 @ Koki Lane</b>			<b>EBL</b>		
	Existing (2018)	60	10	60	30
	Existing (2018) plus Project		10		30
	Near-Term (2028)		15		35
	Near-Term (2028) plus Project		15		35
	Cumulative (2035)		21		40
	Cumulative (2035) plus Project		21		40
<b>#4 SR-49 @ Patterson Dr</b>			<b>WBL</b>		
	Existing (2018)	160	401	160	66
	Existing (2018) plus Project		429		90
	Near-Term (2028)		409		84
	Near-Term (2028) plus Project		440		108
	Cumulative (2035)		427		105
	Cumulative (2035) plus Project		455		128
<b>#5 SR-49 @ Missouri Flat Road</b>			<b>EBL</b>		
	Existing (2018)	175	137	175	80
	Existing (2018) plus Project		140		83
	Near-Term (2028)		145		88
	Near-Term (2028) plus Project		149		91
	Cumulative (2035)		138		124
	Cumulative (2035) plus Project		141		128
<b>#6 SR-49 @ Fowler Ln/Pleasant Valley Rd</b>			<b>EBL</b>		
	Existing (2018)	210	165	210	133
	Existing (2018) plus Project		171		141
	Near-Term (2028)		166		145
	Near-Term (2028) plus Project		172		154
	Cumulative (2035)		215		253
	Cumulative (2035) plus Project		220		268

Source: Highway Capacity Manual (HCM) 2010 methodology per Synchro<sup>®</sup> v10.

### Bicycle and Pedestrian Facilities Evaluation

The proposed project site will include pedestrian facilities to support circulation throughout the site. Pedestrian paths will be included along both sides of the proposed project driveway, extending from Koki Lane at the eastern boundary of the site to the community center, care facility, apartments, and recreational facilities located at the center of the project site. Pedestrian paths will be provided to accommodate access between the various project facilities. A crosswalk will be provided between the community center and the assisted and memory care facility.

There are currently no bike lanes on SR 49 in the project vicinity, and sidewalks are limited or not continuous. There is a marked bike pocket at the intersection of SR 49 at Patterson Drive in the eastbound direction. Existing shoulders are not sufficient to accommodate safe bicycle and pedestrian travel on SR 49 between Pleasant Valley Road and Diamond Springs. There are currently no bicycle facilities on Koki Lane in the project vicinity. There are sidewalks along the southbound segment of Koki Lane in the project vicinity.

According to Caltrans' *State Route 49 Transportation Concept Report* for Segment # 2 (ED PM 9.494/11.239) between Union Mine Road and Missouri Flat Road, a Class II bike lane plan concept has been developed for SR 49 between Pleasant Valley Road and Diamond Springs, and a shared use path for pedestrian and bicyclists concept has been developed for SR 49 between Missouri Flat Road and Forni Road. Shoulder widening to 8-feet to provide pedestrian and bicyclist access along the highway is currently planned. In addition, road widening on SR 49 from Pleasant Valley Road to Missouri Flat Road is currently planned to add a two-way left-turn lane.

While the project will not result in removal of a bikeway/bike lanes, it is required to include pedestrian/bicycle paths connecting to adjacent commercial, research and development, or industrial projects and any schools, parks, or other public facilities. The proposed project will be required to construct on-site roadway and pedestrian facilities in accordance with County design guidelines. These on-site pedestrian and bicycle facilities will connect the project with the proposed adjacent bicycle and pedestrian facilities on SR 49. The project will provide on-site pedestrian and bicycle facilities that will connect the project via Koki Lane with the proposed pedestrian and bicycle facilities on SR 49.

Planning level bicycle and pedestrian level of service (LOS) analysis was conducted for side-street stop controlled intersections with crosswalks and signalized intersections, as shown in **Tables 19-24** on the following pages. The analysis worksheets for this scenario are provided in **Appendix J**.

### Collision History

**Table 20** shows the collisions in the project vicinity between the years 2013 and 2017. As shown, most reported collisions consisted of property damage. Injury collisions also occurred within the project vicinity. However, a majority were complaints of pain, with only 3 visible injury and 1 severe injury collisions occurring within the 5-year span. No fatal collisions were reported.

**Table 19 – Collision Data for Project Vicinity**

ID	Intersection Location	Collision Type					Bike	Pedestrian
		0-Property Damage	1-Fatal	2-Injury (Severe)	3-Injury (Other Visible)	4-Injury (Complaint of Pain)		
1	SR-49 @ Pleasant Valley Road	3	0	0	0	0	No	No
2	SR-49 @ Forni Road	5	0	0	1	1	1	No
3	SR-49 @ Koki Lane	0	0	0	1	1	No	No
4	SR-49 @ Patterson Drive	6	0	1	0	4	No	1
5	SR-49 @ Missouri Flat Drive	13	0	0	2	3	No	No
6	SR-49/Fowler Lane @ Pleasant Valley Road	9	0	0	0	2	No	No

### Transit and Parking

The proposed project vicinity has 5 transit stops located along SR-49 to promote access to the site. These transit stops are accessible through El Dorado Transit Routes 30 and 35, with the Pleasant Valley Road at Oro Lane stop being the closest to the project site.

Vehicle parking will also be available on site. Approximately a total of 140 garage parking spots will be provided, with 80 spots located at the senior independent apartments and the remaining 60 located at the assisted living/memory care facility.

### CONCLUSIONS

Based upon the analysis documented in this report, the following conclusions are offered:

- The proposed project is estimated to generate 787 total new daily trips, with 41 new trips occurring during the AM peak-hour, and 62 new trips occurring during the PM peak-hour.
- As defined by the County, the addition of the proposed project to the Existing (2018), Near-Term (2028), and Cumulative (2035) scenarios worsen conditions at study Intersection #1 (SR 49 @ Pleasant Valley Road). These impacts can be mitigated to less than significant. As a result, the project’s potential environmental impacts to transportation facilities are considered to be *less than significant*.

Table 20 – Existing Bicycle/Pedestrian LOS

ID	Intersection	Control	Approach	Existing (2018) Bicyclist AM LOS Score		Existing (2018) Pedestrian AM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.58	B	2.44	B
			WB	2.75	C	2.41	B
			NB	2.79	C	2.33	B
			SB	2.35	B	1.76	A
4	SR-49 @ Patterson Drive	Signal	EB	1.23	A	2.35	B
			WB	1.60	A	No crosswalk	
			NB	2.57	B	2.09	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.08	C	2.45	B
			WB	4.03	D	No crosswalk	
			SB	2.01	B	2.51	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	2.69	B	2.51	B
			WB	3.74	D	No crosswalk	
			NB	2.71	B	2.03	B
			SB	2.65	B	2.14	B
ID	Intersection	Control	Approach	Existing (2018) Bicyclist PM LOS Score		Existing (2018) Pedestrian PM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.90	C	2.35	B
			WB	2.53	B	2.23	B
			NB	2.26	B	2.02	B
			SB	2.33	B	1.76	A
4	SR-49 @ Patterson Drive	Signal	EB	1.24	A	2.27	B
			WB	1.47	A	No crosswalk	
			NB	2.35	B	2.10	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	2.89	C	2.41	B
			WB	3.39	C	No crosswalk	
			SB	2.92	C	2.54	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	3.11	C	2.54	B
			WB	3.00	C	No crosswalk	
			NB	2.75	C	2.09	B
			SB	2.92	C	2.17	B

**Table 21 – Existing plus Project Bicycle/Pedestrian LOS**

ID	Intersection	Control	Approach	Existing (2018) Bicyclist AM LOS Score		Existing (2018) Pedestrian AM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.60	B	2.44	B
			WB	2.79	C	2.42	B
			NB	2.82	C	2.35	B
			SB	2.37	B	1.76	A
4	SR-49 @ Patterson Drive	Signal	EB	1.26	A	2.36	B
			WB	1.62	A	No crosswalk	
			NB	2.58	B	2.09	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.11	C	2.46	B
			WB	4.05	D	No crosswalk	
			SB	2.02	B	2.52	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	2.69	B	2.52	B
			WB	3.75	D	No crosswalk	
			NB	2.71	B	2.03	B
			SB	2.66	B	2.15	B
ID	Intersection	Control	Approach	Existing (2018) Bicyclist PM LOS Score		Existing (2018) Pedestrian PM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.95	C	2.35	B
			WB	2.57	B	2.25	B
			NB	2.31	B	2.04	B
			SB	2.34	B	1.76	A
4	SR-49 @ Patterson Drive	Signal	EB	1.29	A	2.29	B
			WB	1.50	A	No crosswalk	
			NB	2.35	B	2.10	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	2.92	B	2.42	B
			WB	3.41	C	No crosswalk	
			SB	2.93	C	2.55	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	3.12	C	2.55	B
			WB	3.01	C	No crosswalk	
			NB	2.75	C	2.09	B
			SB	2.94	C	2.18	B

**Table 22 – Near-Term Bicycle/Pedestrian LOS**

ID	Intersection	Control	Approach	Near-Term (2028) Bicyclist AM LOS Score		Near-Term (2028) Pedestrian AM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.59	B	2.44	B
			WB	2.73	B	2.40	B
			NB	2.82	B	2.33	B
			SB	2.35	B	1.77	A
4	SR-49 @ Patterson Drive	Signal	EB	1.23	A	2.34	B
			WB	1.58	A	No crosswalk	
			NB	2.60	B	2.10	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.14	C	2.47	B
			WB	4.03	D	No crosswalk	
			SB	2.03	B	2.52	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	2.71	B	2.53	B
			WB	3.90	D	No crosswalk	
			NB	2.74	B	2.04	B
			SB	2.68	B	2.18	B
ID	Intersection	Control	Approach	Near-Term (2028) Bicyclist PM LOS Score		Near-Term (2028) Pedestrian PM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.97	C	2.37	B
			WB	2.58	B	2.25	B
			NB	2.31	B	2.04	B
			SB	2.35	B	1.77	A
4	SR-49 @ Patterson Drive	Signal	EB	1.31	A	2.30	B
			WB	1.56	A	No crosswalk	
			NB	2.40	B	2.12	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	2.96	C	2.44	B
			WB	3.45	C	No crosswalk	
			SB	3.05	C	2.57	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	3.18	C	2.58	B
			WB	3.17	C	No crosswalk	
			NB	2.81	C	2.11	B
			SB	3.13	C	2.24	B



**Table 23 – Near-Term plus Project Bicycle/Pedestrian LOS**

ID	Intersection	Control	Approach	Near-Term (2028) Bicyclist AM LOS Score		Near-Term (2028) Pedestrian AM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.63	B	2.45	B
			WB	2.76	C	2.42	B
			NB	2.86	C	2.35	B
			SB	2.36	B	1.77	A
4	SR-49 @ Patterson Drive	Signal	EB	1.26	A	2.36	B
			WB	1.61	A	No crosswalk	
			NB	2.60	B	2.11	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.17	C	2.47	B
			WB	4.04	D	No crosswalk	
			SB	2.04	B	2.53	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	2.72	B	2.53	B
			WB	3.91	D	No crosswalk	
			NB	2.74	B	2.04	B
			SB	2.69	B	2.19	B

ID	Intersection	Control	Approach	Near-Term (2028) Bicyclist PM LOS Score		Near-Term (2028) Pedestrian PM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	3.00	C	2.37	B
			WB	2.62	B	2.27	B
			NB	2.35	B	2.06	B
			SB	2.35	B	1.77	A
4	SR-49 @ Patterson Drive	Signal	EB	1.36	A	2.32	B
			WB	1.59	A	No crosswalk	
			NB	2.40	B	2.12	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	2.99	C	2.45	B
			WB	3.48	C	No crosswalk	
			SB	3.06	C	2.58	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	3.19	C	2.59	B
			WB	3.18	C	No crosswalk	
			NB	2.81	C	2.11	B
			SB	3.14	C	2.24	B

**Table 24 – Cumulative Bicycle/Pedestrian LOS**

ID	Intersection	Control	Approach	Cumulative (2035) Bicyclist AM LOS Score		Cumulative (2035) Pedestrian AM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.60	B	2.45	B
			WB	2.71	B	2.39	B
			NB	2.86	C	2.32	B
			SB	2.36	B	1.77	A
4	SR-49 @ Patterson Drive	Signal	EB	1.30	A	2.36	B
			WB	1.61	A	No crosswalk	
			NB	2.66	B	2.12	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.16	C	2.48	B
			WB	3.74	D	No crosswalk	
			SB	1.96	B	2.46	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	2.73	C	2.51	B
			WB	4.87	E	No crosswalk	
			NB	3.15	C	2.13	B
			SB	3.46	B	2.66	B
ID	Intersection	Control	Approach	Cumulative (2035) Bicyclist PM LOS Score		Cumulative (2035) Pedestrian PM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	3.04	C	2.39	B
			WB	2.64	B	2.27	B
			NB	2.36	B	2.07	B
			SB	2.37	B	1.78	A
4	SR-49 @ Patterson Drive	Signal	EB	1.36	A	2.32	B
			WB	1.63	A	No crosswalk	
			NB	2.45	B	2.14	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.07	C	2.48	B
			WB	3.18	C	No crosswalk	
			SB	2.91	C	2.51	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	3.16	C	2.58	B
			WB	4.30	E	No crosswalk	
			NB	3.20	C	2.19	B
			SB	4.11	D	2.72	B

**Table 25 – Cumulative plus Project Bicycle/Pedestrian LOS**

ID	Intersection	Control	Approach	Cumulative (2035) Bicyclist AM LOS Score		Cumulative (2035) Pedestrian AM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	2.62	B	2.46	B
			WB	2.72	B	2.41	B
			NB	2.90	C	2.35	B
			SB	2.36	B	1.77	A
4	SR-49 @ Patterson Drive	Signal	EB	1.33	A	2.38	B
			WB	1.64	A	No crosswalk	
			NB	2.67	B	2.13	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.18	C	2.49	B
			WB	3.76	D	No crosswalk	
			SB	1.96	B	2.46	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	2.74	C	2.52	B
			WB	4.88	E	No crosswalk	
			NB	3.15	C	2.13	B
			SB	3.47	C	2.66	B
ID	Intersection	Control	Approach	Cumulative (2035) Bicyclist PM LOS Score		Cumulative (2035) Pedestrian PM LOS Score	
				Score	LOS	Score	LOS
3	SR-49 @ Koki Lane	SSSC	EB	3.07	C	2.39	B
			WB	2.67	B	2.29	B
			NB	2.40	B	2.09	B
			SB	2.37	B	1.78	A
4	SR-49 @ Patterson Drive	Signal	EB	1.40	A	2.34	B
			WB	1.66	A	No crosswalk	
			NB	2.45	B	2.14	B
5	SR-49 @ Missouri Flat Drive	Signal	EB	3.10	C	2.49	B
			WB	3.21	C	No crosswalk	
			SB	2.92	C	2.52	B
6	SR-49/Fowler Lane @ Pleasant Valley Road	Signal	EB	3.17	C	2.59	B
			WB	4.31	C	No crosswalk	
			NB	3.20	C	2.19	B
			SB	4.12	C	2.72	B

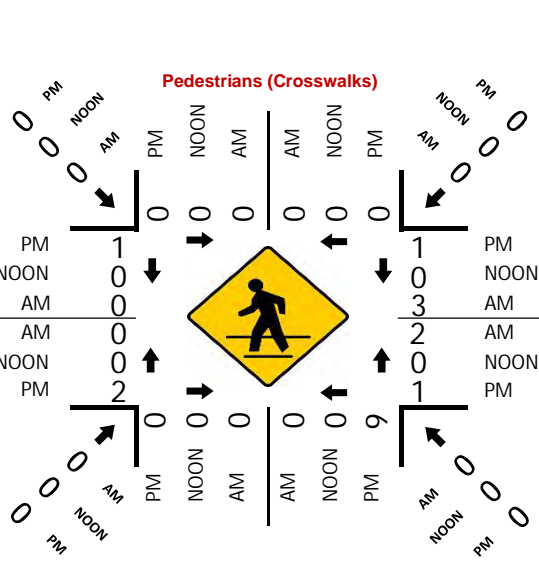
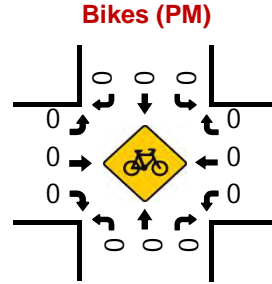
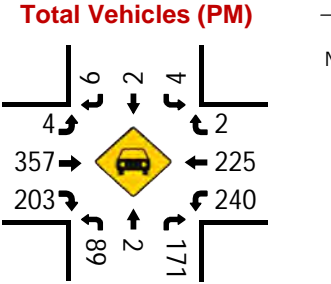
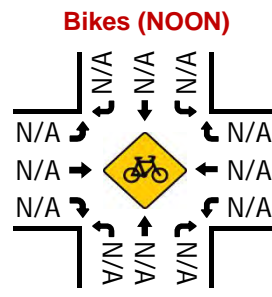
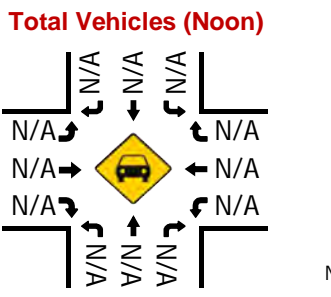
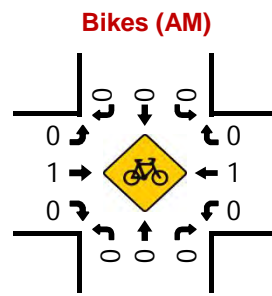
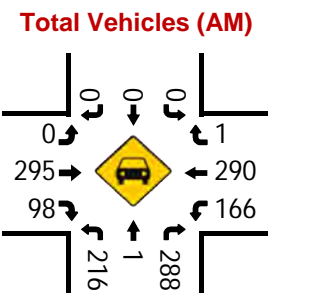
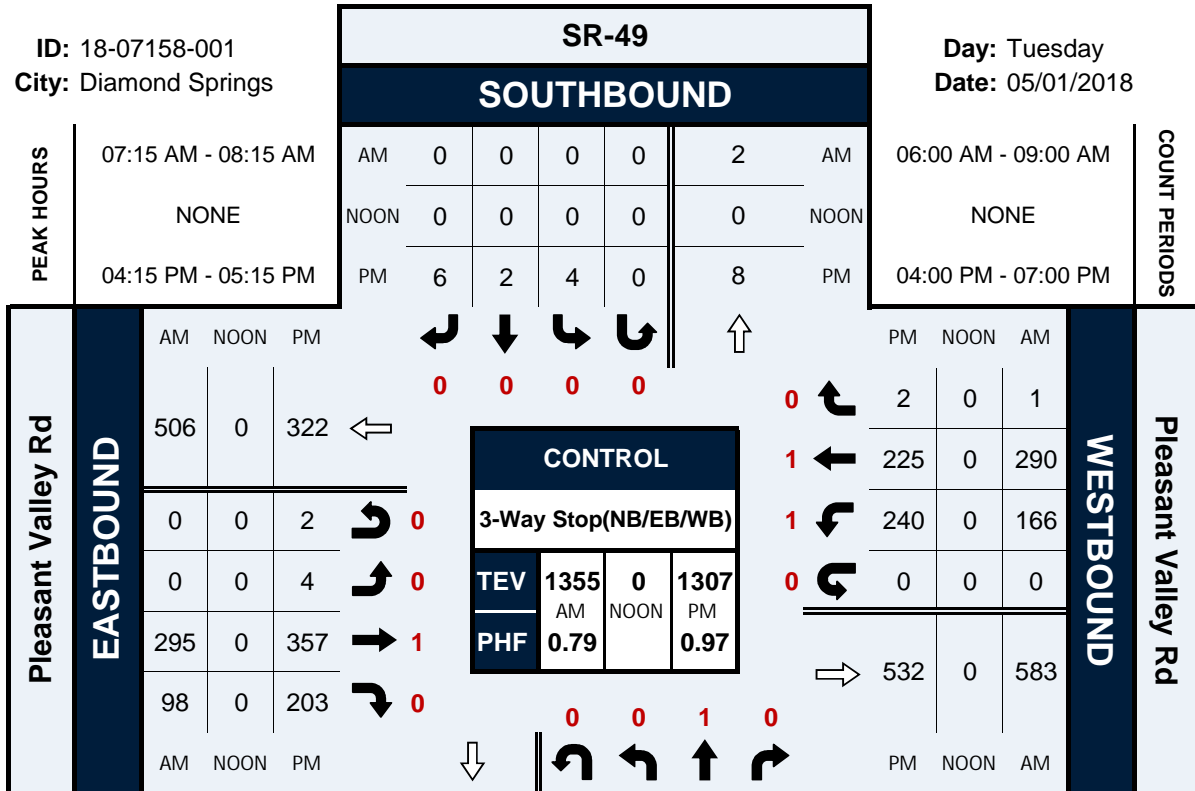
Appendix A:  
*Traffic Count Data Sheets*

# SR-49 & Pleasant Valley Rd

## Peak Hour Turning Movement Count

ID: 18-07158-001  
City: Diamond Springs

Day: Tuesday  
Date: 05/01/2018

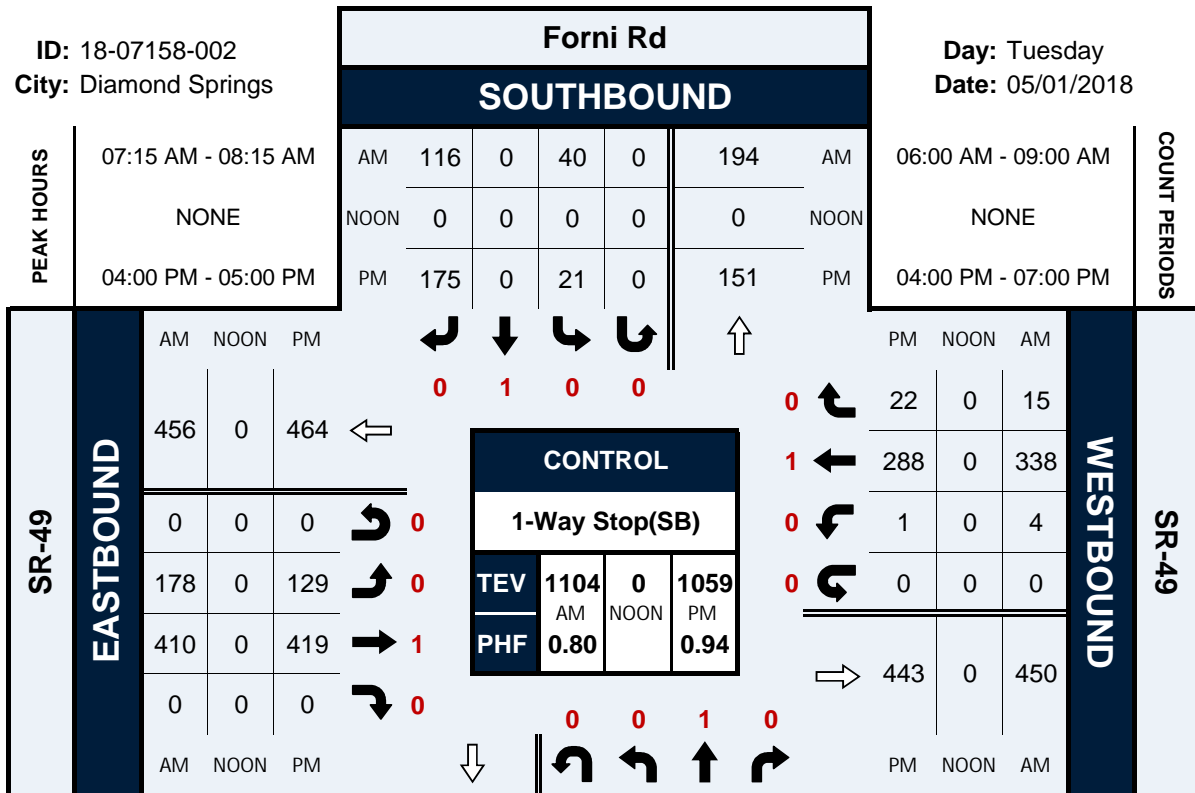


# Forni Rd & SR-49

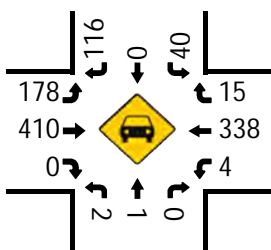
## Peak Hour Turning Movement Count

ID: 18-07158-002  
City: Diamond Springs

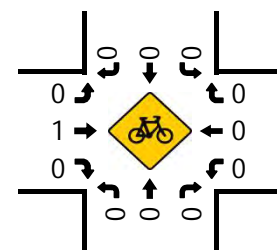
Day: Tuesday  
Date: 05/01/2018



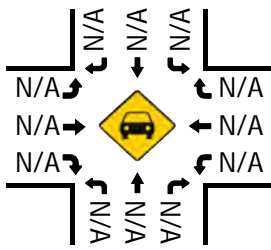
Total Vehicles (AM)



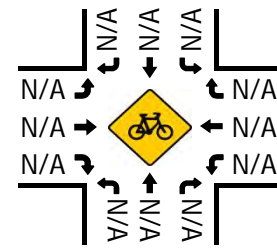
Bikes (AM)



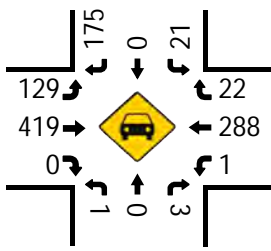
Total Vehicles (Noon)



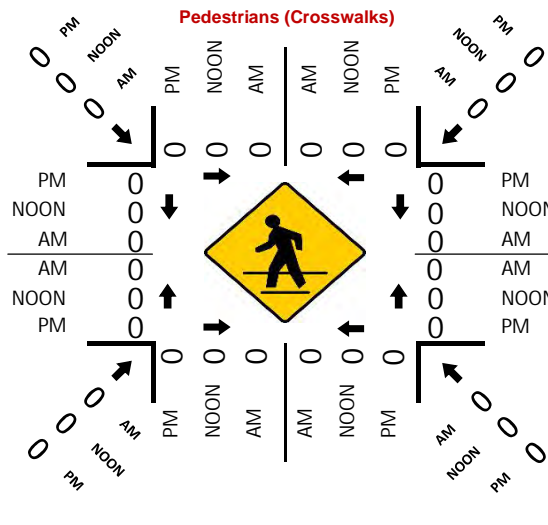
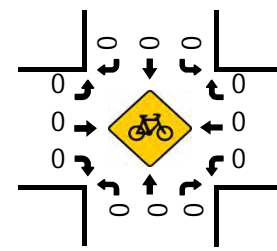
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)

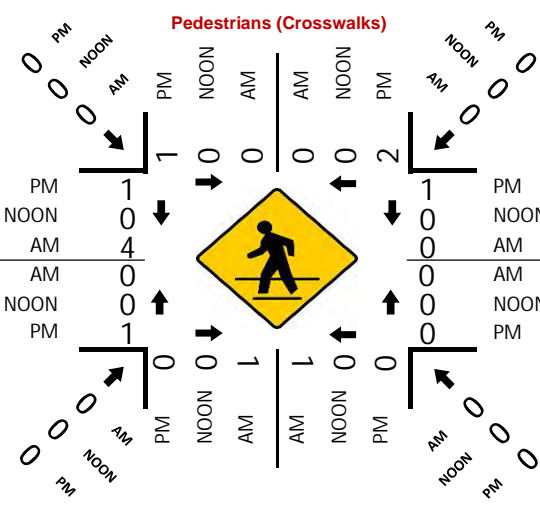
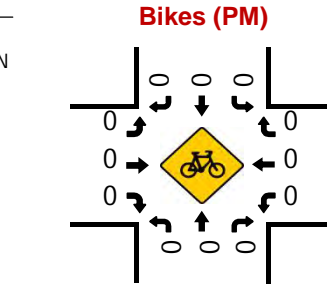
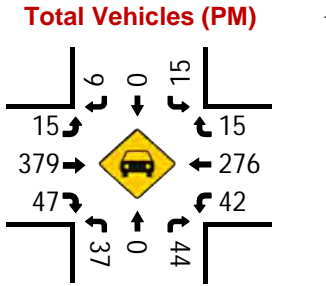
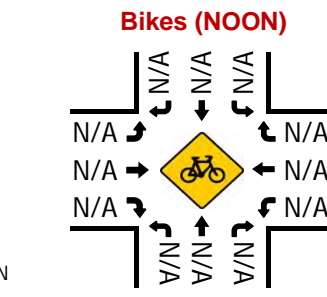
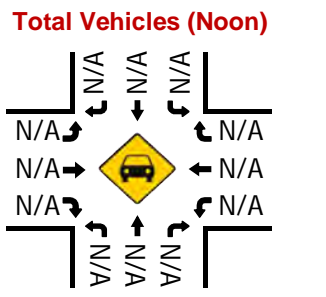
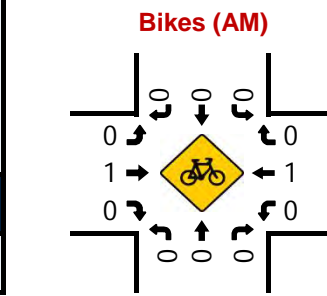
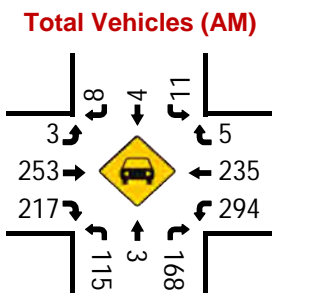
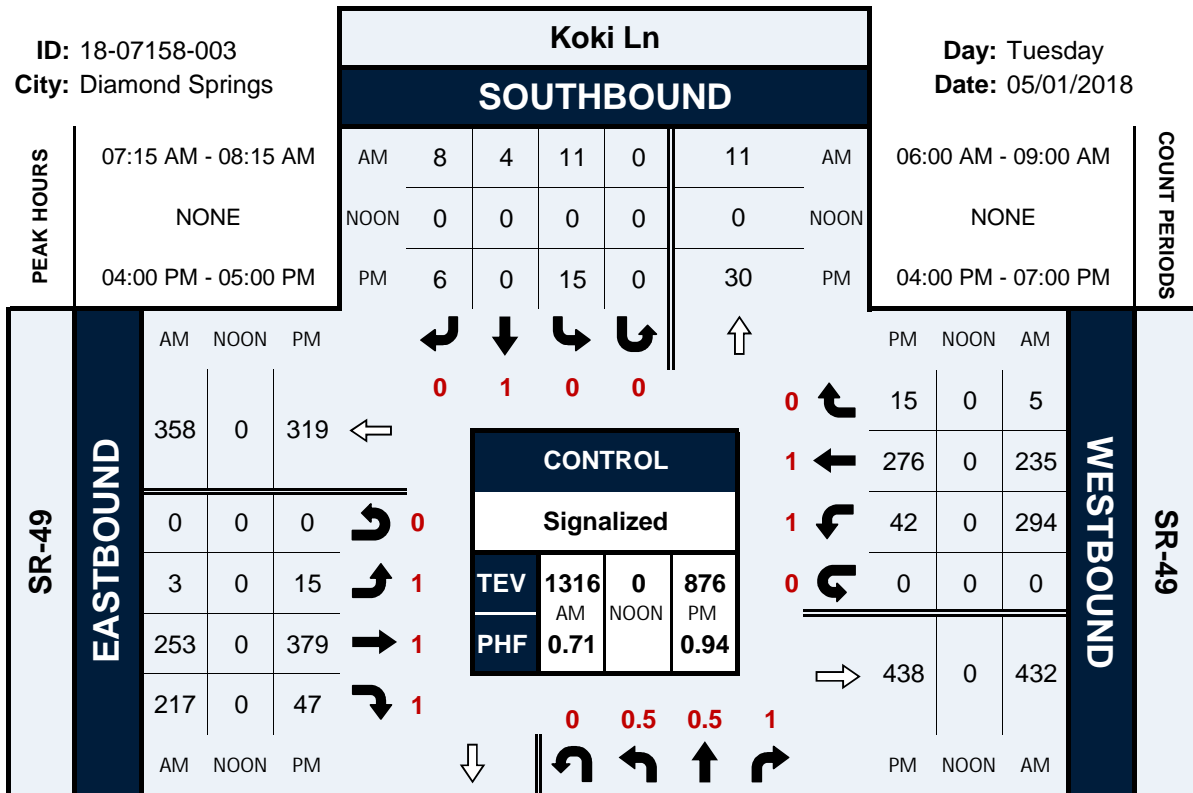


# Koki Ln & SR-49

## Peak Hour Turning Movement Count

ID: 18-07158-003  
City: Diamond Springs

Day: Tuesday  
Date: 05/01/2018



# Patterson Dr & SR-49

## Peak Hour Turning Movement Count

ID: 18-07158-004  
City: Diamond Springs

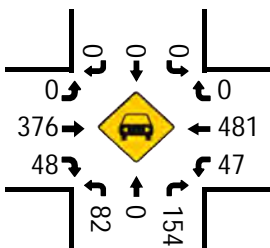
Day: Tuesday  
Date: 05/01/2018

PEAK HOURS		Patterson Dr						COUNT PERIODS		
		SOUTHBOUND								
PEAK HOURS	07:15 AM - 08:15 AM	AM	0	0	0	0	0	AM	06:00 AM - 09:00 AM	COUNT PERIODS
	NONE	NOON	0	0	0	0	0	NOON	NONE	
	05:00 PM - 06:00 PM	PM	0	0	0	0	0	PM	04:00 PM - 07:00 PM	

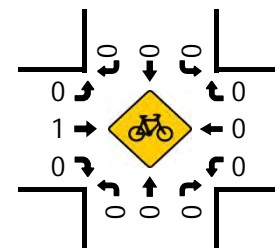
  

SR-49 EASTBOUND	AM	NOON	PM	CONTROL				SR-49 WESTBOUND	
				Signalized					
	563	0	407	TEV	1188	0	1154		
	0	0	0	PHF	0.84		0.96		
	376	0	412						
	48	0	82						

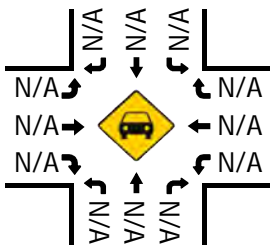
Total Vehicles (AM)



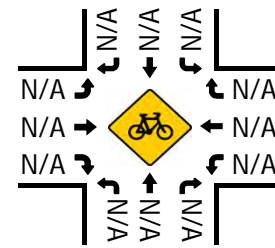
Bikes (AM)



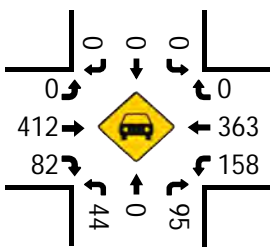
Total Vehicles (Noon)



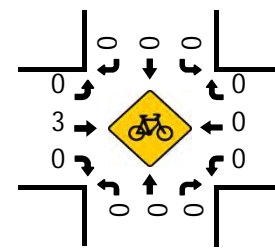
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)

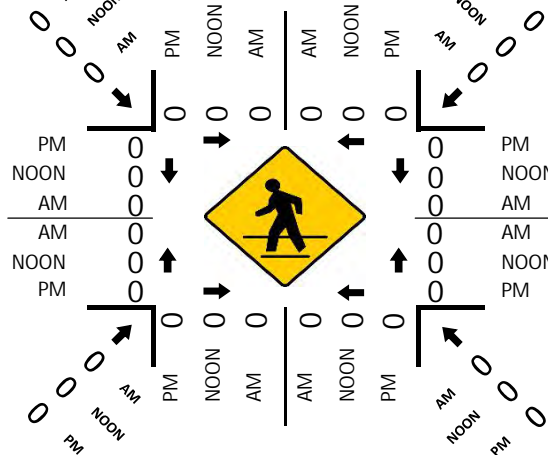


PEAK HOURS		Patterson Dr						
		NORTHBOUND						
PEAK HOURS	07:15 AM - 08:15 AM	AM	0	0	0	0	0	AM
	NONE	NOON	0	0	0	0	0	NOON
	05:00 PM - 06:00 PM	PM	0	0	0	0	0	PM

SR-49 EASTBOUND	AM	NOON	PM	CONTROL				SR-49 WESTBOUND	
				Signalized					
	240	0	44	TEV	1188	0	1154		
	95	0	82	PHF	0.84		0.96		
	0	0	0						
	0	0	0						
	376	0	412						
	48	0	82						

Pedestrians (Crosswalks)



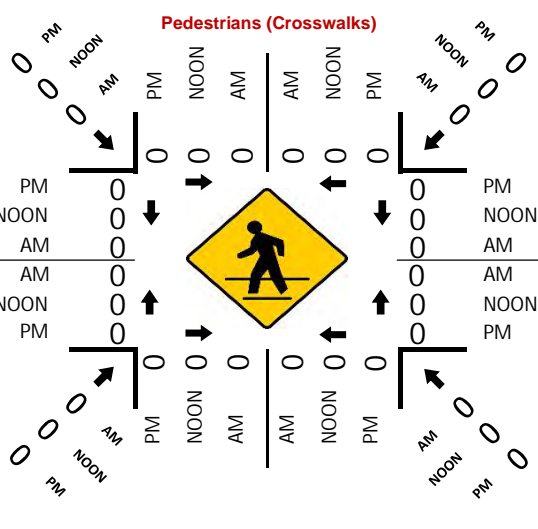
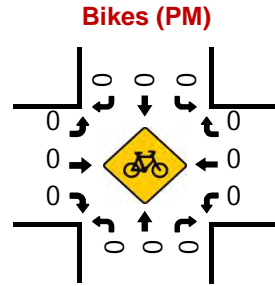
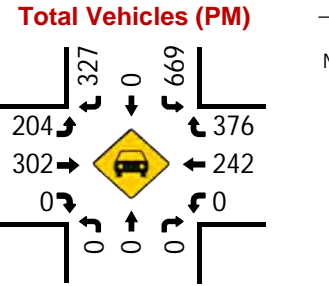
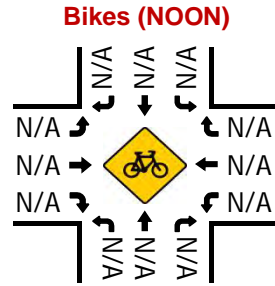
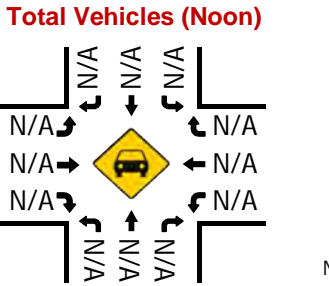
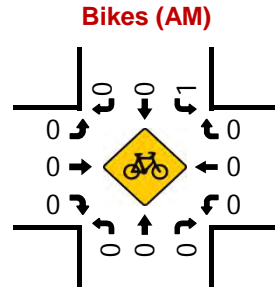
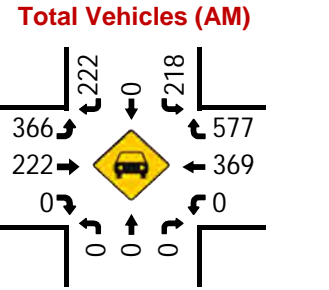
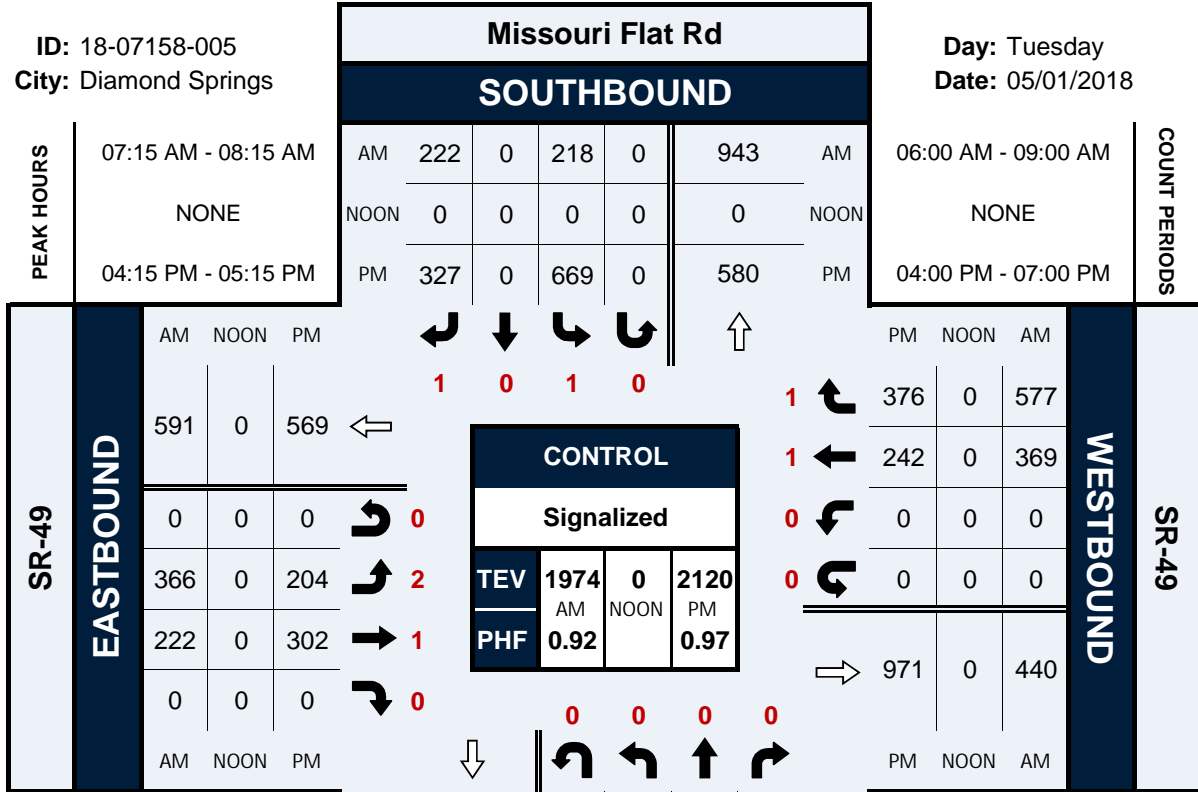


# Missouri Flat Rd & SR-49

## Peak Hour Turning Movement Count

ID: 18-07158-005  
City: Diamond Springs

Day: Tuesday  
Date: 05/01/2018

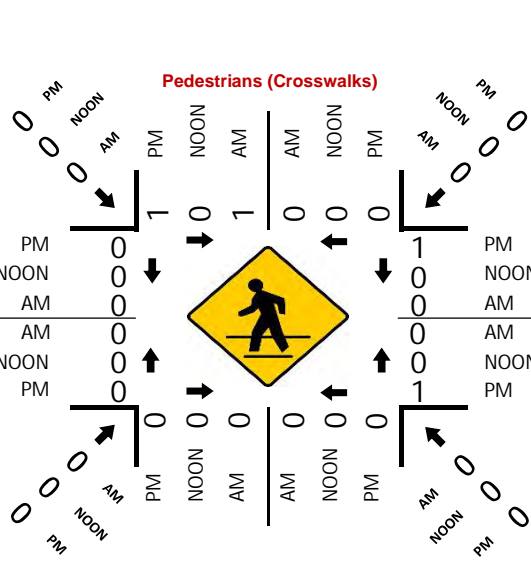
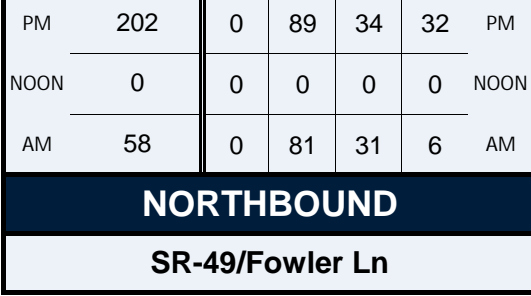
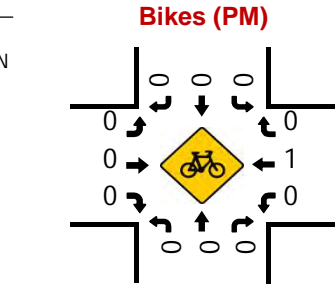
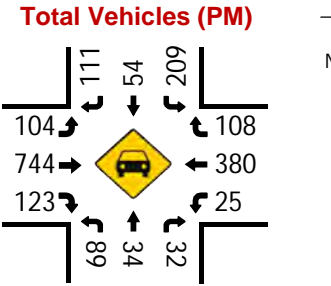
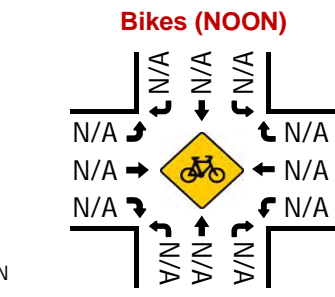
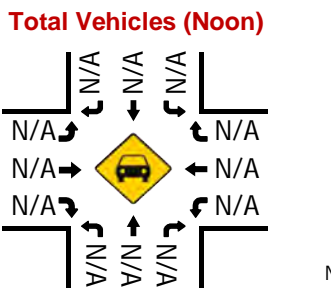
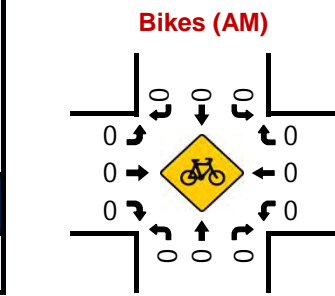
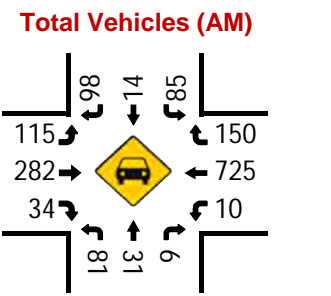
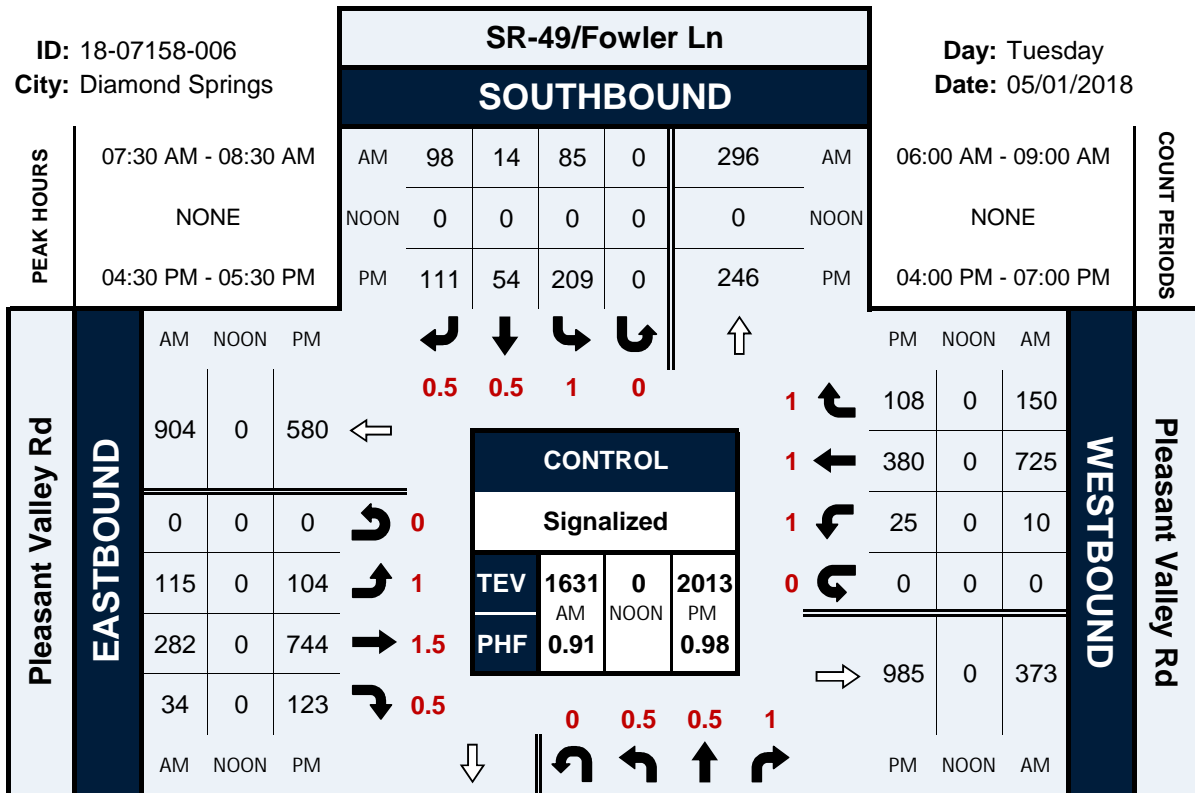


# SR-49/Fowler Ln & Pleasant Valley Rd

## Peak Hour Turning Movement Count

ID: 18-07158-006  
City: Diamond Springs

Day: Tuesday  
Date: 05/01/2018



# VOLUME

## SR-49 Bet. Forni Rd & Koki Ln

Day: Tuesday  
Date: 5/1/2018

City: El Dorado County  
Project #: CA18\_7159\_001

DAILY TOTALS						NB	SB					Total
						0	0	EB	WB			8,412
								4,333	4,079			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			2	1	3	12:00			73	61	134	
00:15			5	4	9	12:15			60	75	135	
00:30			2	2	4	12:30			73	63	136	
00:45			1	10	11	12:45			84	290	374	
01:00			0	1	1	13:00			77	58	135	
01:15			4	0	4	13:15			55	63	118	
01:30			1	2	3	13:30			66	47	113	
01:45			0	5	5	13:45			90	288	378	
02:00			2	3	5	14:00			74	72	146	
02:15			0	1	1	14:15			55	68	123	
02:30			1	0	1	14:30			84	97	181	
02:45			5	8	13	14:45			91	304	395	
03:00			0	2	2	15:00			91	160	251	
03:15			0	1	1	15:15			95	95	190	
03:30			2	0	2	15:30			89	76	165	
03:45			2	4	6	15:45			70	345	415	
04:00			9	6	15	16:00			102	74	176	
04:15			5	4	9	16:15			113	78	191	
04:30			7	14	21	16:30			101	76	177	
04:45			5	26	31	16:45			106	422	528	
05:00			6	15	21	17:00			97	73	170	
05:15			18	19	37	17:15			93	73	166	
05:30			8	36	44	17:30			98	62	160	
05:45			12	44	56	17:45			90	378	468	
06:00			20	31	51	18:00			87	55	142	
06:15			18	47	65	18:15			73	57	130	
06:30			27	54	81	18:30			49	44	93	
06:45			29	94	123	18:45			53	262	315	
07:00			49	61	110	19:00			22	47	69	
07:15			101	86	187	19:15			50	37	87	
07:30			161	71	232	19:30			33	34	67	
07:45			100	411	511	19:45			34	139	173	
08:00			80	82	162	20:00			38	43	81	
08:15			88	94	182	20:15			46	23	69	
08:30			73	84	157	20:30			13	31	44	
08:45			70	311	381	20:45			27	124	151	
09:00			46	53	99	21:00			26	21	47	
09:15			50	54	104	21:15			22	15	37	
09:30			44	56	100	21:30			23	10	33	
09:45			59	199	258	21:45			19	90	109	
10:00			53	52	105	22:00			20	10	30	
10:15			60	54	114	22:15			11	6	17	
10:30			54	66	120	22:30			12	11	23	
10:45			76	243	319	22:45			4	47	51	
11:00			55	76	131	23:00			5	2	7	
11:15			79	67	146	23:15			13	6	19	
11:30			78	41	119	23:30			3	4	7	
11:45			51	263	314	23:45			5	26	31	
TOTALS			1618	1676	3294	TOTALS			2715	2403	5118	
SPLIT %			49.1%	50.9%	39.2%	SPLIT %			53.0%	47.0%	60.8%	

DAILY TOTALS						NB	SB					Total
						0	0	EB	WB			8,412
								4,333	4,079			

AM Peak Hour			07:15	07:45	07:15	PM Peak Hour			16:00	14:30	14:30
AM Pk Volume			442	349	791	PM Pk Volume			422	459	881
PK Hr Factor			0.686	0.928	0.830	PK Hr Factor			0.934	0.717	0.817
7 - 9 Volume	0	0	722	638	1360	4 - 6 Volume	0	0	800	559	1359
7 - 9 Peak Hour			07:15	07:45	07:15	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	442	349	791	4 - 6 Pk Volume	0	0	422	294	716
PK Hr Factor	0.000	0.000	0.686	0.928	0.830	PK Hr Factor	0.000	0.000	0.934	0.942	0.937

# VOLUME

SR-49 Bet. Forni Rd & Koki Ln

Day: Wednesday  
Date: 5/2/2018

City: El Dorado County  
Project #: CA18\_7159\_001

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	4,461	4,130	8,591

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			7	3	10	12:00			63	79	142
00:15			4	4	8	12:15			70	71	141
00:30			5	7	12	12:30			67	50	117
00:45			2	18	3	12:45			67	267	116
				15	33				49	249	516
01:00			0	2	2	13:00			63	82	145
01:15			1	1	2	13:15			71	79	150
01:30			0	1	1	13:30			89	86	175
01:45			4	5	4	13:45			76	299	154
				4	9				78	325	624
02:00			1	1	2	14:00			68	54	122
02:15			0	2	2	14:15			84	86	170
02:30			1	3	4	14:30			89	92	181
02:45			1	3	1	14:45			110	351	206
				6	9				96	328	679
03:00			0	2	2	15:00			102	135	237
03:15			2	0	2	15:15			88	95	183
03:30			3	2	5	15:30			91	86	177
03:45			4	9	1	15:45			87	368	158
				5	14				71	387	755
04:00			5	6	11	16:00			95	83	178
04:15			7	7	14	16:15			101	63	164
04:30			6	15	21	16:30			118	58	176
04:45			5	23	8	16:45			111	425	175
				36	59				64	268	693
05:00			10	14	24	17:00			102	70	172
05:15			12	22	34	17:15			83	79	162
05:30			14	36	50	17:30			93	56	149
05:45			10	46	33	17:45			81	359	140
				105	43	17:45			59	264	623
06:00			16	32	48	18:00			63	69	132
06:15			17	36	53	18:15			62	43	105
06:30			22	56	78	18:30			60	50	110
06:45			35	90	49	18:45			56	241	102
				173	84	18:45			46	208	449
07:00			61	43	104	19:00			48	39	87
07:15			104	87	191	19:15			42	46	88
07:30			143	67	210	19:30			33	30	63
07:45			120	428	91	19:45			50	173	83
				288	211	19:45			33	148	321
08:00			82	82	164	20:00			33	48	81
08:15			94	109	203	20:15			40	27	67
08:30			73	77	150	20:30			36	35	71
08:45			58	307	62	20:45			40	149	75
				330	120	20:45			35	145	294
09:00			62	54	116	21:00			23	16	39
09:15			68	63	131	21:15			26	21	47
09:30			66	61	127	21:30			23	18	41
09:45			61	257	58	21:45			19	91	28
				236	119	21:45			9	64	155
10:00			55	51	106	22:00			17	11	28
10:15			57	76	133	22:15			15	13	28
10:30			49	54	103	22:30			9	6	15
10:45			72	233	61	22:45			2	43	8
				242	133	22:45			6	36	79
11:00			47	57	104	23:00			7	7	14
11:15			68	58	126	23:15			10	5	15
11:30			75	60	135	23:30			3	4	7
11:45			61	251	74	23:45			5	25	8
				249	135	23:45			3	19	44
TOTALS			1670	1689	3359	TOTALS			2791	2441	5232
SPLIT %			49.7%	50.3%	39.1%	SPLIT %			53.3%	46.7%	60.9%

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	4,461	4,130	8,591

AM Peak Hour			07:15	07:45	07:30	PM Peak Hour			16:15	14:30	14:30
AM Pk Volume			449	359	788	PM Pk Volume			432	418	807
PK Hr Factor			0.785	0.823	0.934	PK Hr Factor			0.915	0.774	0.851
7 - 9 Volume	0	0	735	618	1353	4 - 6 Volume	0	0	784	532	1316
7 - 9 Peak Hour			07:15	07:45	07:30	4 - 6 Peak Hour			16:15	16:30	16:00
7 - 9 Pk Volume	0	0	449	359	788	4 - 6 Pk Volume	0	0	432	271	693
PK Hr Factor	0.000	0.000	0.785	0.823	0.934	PK Hr Factor	0.000	0.000	0.915	0.858	0.973

## VOLUME

### Koki Ln Bet. SR-49 & Union Mine Rd

Day: Tuesday  
Date: 5/1/2018

City: El Dorado County  
Project #: CA18\_7159\_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					1,270	1,237	0	0	2,507		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	0			0	12:00	6	12			18
00:15	0	0			0	12:15	11	8			19
00:30	0	0			0	12:30	9	18			27
00:45	0	0			0	12:45	81	107	17	55	98
01:00	0	0			0	13:00	19	16			35
01:15	0	0			0	13:15	34	13			47
01:30	0	0			0	13:30	15	4			19
01:45	0	0			0	13:45	7	75	7	40	14
02:00	0	0			0	14:00	7	12			19
02:15	0	0			0	14:15	15	19			34
02:30	0	0			0	14:30	23	42			65
02:45	0	0			0	14:45	92	137	62	135	154
03:00	0	0			0	15:00	190	44			234
03:15	0	0			0	15:15	46	26			72
03:30	0	0			0	15:30	27	23			50
03:45	0	0			0	15:45	17	280	11	104	28
04:00	0	0			0	16:00	11	11			22
04:15	0	0			0	16:15	18	17			35
04:30	0	0			0	16:30	24	26			50
04:45	0	0			0	16:45	14	67	16	70	30
05:00	0	0			0	17:00	13	19			32
05:15	0	0			0	17:15	47	23			70
05:30	0	0			0	17:30	32	19			51
05:45	0	1	1		1	17:45	23	115	29	90	52
06:00	0	9			9	18:00	21	8			29
06:15	1	5			6	18:15	12	14			26
06:30	5	10			15	18:30	16	7			23
06:45	12	18	20	44	32	18:45	8	57	6	35	14
07:00	19	48			67	19:00	5	4			9
07:15	75	170			245	19:15	6	4			10
07:30	68	166			234	19:30	1	1			2
07:45	58	220	85	469	143	19:45	2	14	13	22	15
08:00	16	12			28	20:00	36	8			44
08:15	5	6			11	20:15	7	2			9
08:30	4	7			11	20:30	1	1			2
08:45	3	28	12	37	15	20:45	11	55	1	12	12
09:00	3	17			20	21:00	2	1			3
09:15	11	23			34	21:15	1	1			2
09:30	13	14			27	21:30	2	0			2
09:45	10	37	10	64	20	21:45	2	7	0	2	2
10:00	4	3			7	22:00	0	0			0
10:15	2	4			6	22:15	0	0			0
10:30	5	3			8	22:30	0	0			0
10:45	7	18	12	22	19	22:45	1	1	1	1	2
11:00	14	18			32	23:00	0	0			0
11:15	10	4			14	23:15	0	0			0
11:30	5	7			12	23:30	0	0			0
11:45	5	34	5	34	10	23:45	0	0			0
<b>TOTALS</b>	<b>355</b>	<b>671</b>			<b>1026</b>	<b>TOTALS</b>	<b>915</b>	<b>566</b>			<b>1481</b>
<b>SPLIT %</b>	<b>34.6%</b>	<b>65.4%</b>			<b>40.9%</b>	<b>SPLIT %</b>	<b>61.8%</b>	<b>38.2%</b>			<b>59.1%</b>

DAILY TOTALS					NB	SB	EB	WB	Total
					1,270	1,237	0	0	2,507

AM Peak Hour	07:00	07:00			07:00	PM Peak Hour	14:45	14:30			14:30
AM Pk Volume	220	469			689	PM Pk Volume	355	174			525
PK Hr Factor	0.733	0.690			0.703	PK Hr Factor	0.467	0.702			0.561
7 - 9 Volume	248	506	0	0	754	4 - 6 Volume	182	160	0	0	342
7 - 9 Peak Hour	07:00	07:00			07:00	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	220	469	0	0	689	PK Hr Factor	115	90	0	0	205
PK Hr Factor	0.733	0.690	0.000	0.000	0.703	PK Hr Factor	0.612	0.776	0.000	0.000	0.732

# VOLUME

## Koki Ln Bet. SR-49 & Union Mine Rd

Day: Wednesday  
Date: 5/2/2018

City: El Dorado County  
Project #: CA18\_7159\_002

DAILY TOTALS					NB	SB	EB	WB	Total
					1,266	1,168	0	0	2,434

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	0			0	12:00	8	8			16
00:15	0	0			0	12:15	10	11			21
00:30	0	0			0	12:30	12	12			24
00:45	0	0			0	12:45	8	38	16	47	24
01:00	0	0			0	13:00	71	16			87
01:15	1	0			1	13:15	21	11			32
01:30	0	0			0	13:30	28	16			44
01:45	0	1	0		0	13:45	12	132	8	51	20
02:00	0	0			0	14:00	11	7			18
02:15	0	0			0	14:15	11	24			35
02:30	0	0			0	14:30	31	47			78
02:45	0	0			0	14:45	100	153	64	142	164
03:00	0	0			0	15:00	172	41			213
03:15	0	0			0	15:15	34	23			57
03:30	0	0			0	15:30	24	8			32
03:45	0	0			0	15:45	8	238	3	75	11
04:00	0	0			0	16:00	19	10			29
04:15	0	0			0	16:15	8	11			19
04:30	0	0			0	16:30	16	23			39
04:45	0	0			0	16:45	18	61	16	60	34
05:00	0	0			0	17:00	14	18			32
05:15	2	1			3	17:15	44	11			55
05:30	0	0			0	17:30	12	18			30
05:45	0	2	0	1	0	17:45	31	101	20	67	51
06:00	0	0			0	18:00	12	15			27
06:15	0	6			6	18:15	10	7			17
06:30	10	17			27	18:30	18	7			25
06:45	15	25	19	42	34	18:45	7	47	8	37	15
07:00	17	51			68	19:00	12	3			15
07:15	68	153			221	19:15	13	6			19
07:30	85	166			251	19:30	5	4			9
07:45	41	211	64	434	105	19:45	12	42	12	25	24
08:00	17	17			34	20:00	31	5			36
08:15	4	7			11	20:15	11	6			17
08:30	9	12			21	20:30	28	3			31
08:45	3	33	14	50	17	20:45	6	76	0	14	6
09:00	6	25			31	21:00	0	2			2
09:15	19	8			27	21:15	0	1			1
09:30	6	9			15	21:30	2	0			2
09:45	5	36	6	48	11	21:45	0	2	0	3	0
10:00	9	9			18	22:00	0	0			0
10:15	6	11			17	22:15	0	0			0
10:30	5	8			13	22:30	1	0			1
10:45	9	29	10	38	19	22:45	0	1	0		0
11:00	6	10			16	23:00	0	0			0
11:15	9	6			15	23:15	0	0			0
11:30	12	11			23	23:30	0	0			0
11:45	11	38	7	34	18	23:45	0	0			0
TOTALS	375	647			1022	TOTALS	891	521			1412
SPLIT %	36.7%	63.3%			42.0%	SPLIT %	63.1%	36.9%			58.0%

DAILY TOTALS					NB	SB	EB	WB	Total
					1,266	1,168	0	0	2,434

AM Peak Hour	07:00	07:00			07:00	PM Peak Hour	14:30	14:15			14:30
AM Pk Volume	211	434			645	PM Pk Volume	337	176			512
PK Hr Factor	0.621	0.654			0.642	PK Hr Factor	0.490	0.688			0.601
7 - 9 Volume	244	484	0	0	728	4 - 6 Volume	162	127	0	0	289
7 - 9 Peak Hour	07:00	07:00			07:00	4 - 6 Peak Hour	17:00	16:15			17:00
7 - 9 Pk Volume	211	434	0	0	645	Volume	101	68	0	0	168
PK Hr Factor	0.621	0.654	0.000	0.000	0.642	PK Hr Factor	0.574	0.739	0.000	0.000	0.764

Appendix B:

*Analysis Worksheets for  
Existing (2018) Conditions*

Intersection

Intersection Delay, s/veh	70.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	295	98	166	290	1	216	1	288	0	0	0
Future Vol, veh/h	0	295	98	166	290	1	216	1	288	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	373	124	210	367	1	273	1	365	0	0	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	54.9	28.3	120.3	0
HCM LOS	F	D	F	-

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	43%	0%	100%	0%	0%
Vol Thru, %	0%	75%	0%	100%	100%
Vol Right, %	57%	25%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	393	166	291	0
LT Vol	216	0	166	0	0
Through Vol	1	295	0	290	0
RT Vol	288	98	0	1	0
Lane Flow Rate	639	497	210	368	0
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.175	0.942	0.47	0.772	0
Departure Headway (Hd)	6.616	7.4	8.698	8.177	9.789
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	550	492	416	446	0
Service Time	4.66	5.4	6.398	5.877	7.789
HCM Lane V/C Ratio	1.162	1.01	0.505	0.825	0
HCM Control Delay	120.3	54.9	18.9	33.6	12.8
HCM Lane LOS	F	F	C	D	N
HCM 95th-tile Q	22.4	11.5	2.4	6.6	0



Intersection						
Int Delay, s/veh	6.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	178	410	338	15	40	116
Future Vol, veh/h	178	410	338	15	40	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	220	506	417	19	49	143

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	436	0	-	0	1373 427
Stage 1	-	-	-	-	427 -
Stage 2	-	-	-	-	946 -
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	1124	-	-	-	161 628
Stage 1	-	-	-	-	658 -
Stage 2	-	-	-	-	377 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1124	-	-	-	117 628
Mov Cap-2 Maneuver	-	-	-	-	117 -
Stage 1	-	-	-	-	658 -
Stage 2	-	-	-	-	274 -

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	37.2
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1124	-	-	-	296
HCM Lane V/C Ratio	0.196	-	-	-	0.651
HCM Control Delay (s)	9	0	-	-	37.2
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	4.2

El Dorado Senior Resort  
3: Koki Ln & SR 49

Existing Conditions

AM Peak



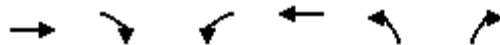
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	253	217	294	235	5	115	3	168	11	4	8
Future Volume (vph)	3	253	217	294	235	5	115	3	168	11	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1863	1544	1770	1856			1776	1583		1720	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1863	1544	1770	1856			1776	1583		1720	
Peak-hour factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	4	356	306	414	331	7	162	4	237	15	6	11
RTOR Reduction (vph)	0	0	106	0	0	0	0	0	200	0	10	0
Lane Group Flow (vph)	4	356	200	414	338	0	0	166	37	0	22	0
Confl. Peds. (#/hr)			2	2			4					4
Confl. Bikes (#/hr)			1			1						
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	3.3	20.1	46.8	30.0	46.8			12.9	12.9		5.6	
Effective Green, g (s)	3.3	20.1	46.8	30.0	46.8			12.9	12.9		5.6	
Actuated g/C Ratio	0.04	0.24	0.56	0.36	0.56			0.15	0.15		0.07	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	69	447	863	634	1037			273	243		115	
v/s Ratio Prot	0.00	c0.19		c0.23	0.18			c0.09			c0.01	
v/s Ratio Perm			0.13						0.02			
v/c Ratio	0.06	0.80	0.23	0.65	0.33			0.61	0.15		0.19	
Uniform Delay, d1	38.7	29.9	9.3	22.5	9.9			33.0	30.7		36.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.1	8.9	0.1	1.8	0.1			2.6	0.1		0.3	
Delay (s)	38.8	38.8	9.4	24.3	10.0			35.7	30.8		37.2	
Level of Service	D	D	A	C	B			D	C		D	
Approach Delay (s)		25.3			17.9			32.8			37.2	
Approach LOS		C			B			C			D	

Intersection Summary

HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	83.7	Sum of lost time (s)	15.1
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 analysis does not support custom phasing.

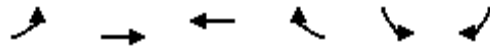


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↗
Traffic Volume (vph)	376	48	47	481	82	154
Future Volume (vph)	376	48	47	481	82	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1559	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1559	1770	1863	1770	1583
Peak-hour factor, PHF	0.84	0.84	1.00	0.84	0.84	0.84
Adj. Flow (vph)	448	57	47	573	98	183
RTOR Reduction (vph)	0	29	0	0	0	130
Lane Group Flow (vph)	448	28	47	573	98	53
Confl. Bikes (#/hr)		1				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	19.8	27.1	8.7	32.6	7.3	16.0
Effective Green, g (s)	19.8	27.1	8.7	32.6	7.3	16.0
Actuated g/C Ratio	0.36	0.49	0.16	0.59	0.13	0.29
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	662	758	276	1090	231	454
v/s Ratio Prot	c0.24	0.00	0.03	c0.31	c0.06	0.02
v/s Ratio Perm		0.01				0.02
v/c Ratio	0.68	0.04	0.17	0.53	0.42	0.12
Uniform Delay, d1	15.2	7.5	20.4	6.9	22.3	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.0	0.1	0.2	0.5	0.0
Delay (s)	17.4	7.5	20.5	7.1	22.7	14.7
Level of Service	B	A	C	A	C	B
Approach Delay (s)	16.3			8.1	17.5	
Approach LOS	B			A	B	

**Intersection Summary**

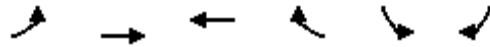
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	55.7	Sum of lost time (s)	17.0
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖ ↗	↑	↑	↑	↖ ↗	↖ ↗
Traffic Volume (vph)	366	222	369	577	218	222
Future Volume (vph)	366	222	369	577	218	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1566
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1566
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	398	241	401	627	237	241
RTOR Reduction (vph)	0	0	0	49	0	133
Lane Group Flow (vph)	398	241	401	578	237	108
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	12.6	35.8	19.2	32.5	13.3	25.9
Effective Green, g (s)	12.6	35.8	19.2	32.5	13.3	25.9
Actuated g/C Ratio	0.22	0.62	0.33	0.56	0.23	0.45
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	748	1153	618	890	407	701
v/s Ratio Prot	c0.12	0.13	0.22	c0.15	0.13	0.03
v/s Ratio Perm				0.22		0.04
v/c Ratio	0.53	0.21	0.65	0.65	0.58	0.15
Uniform Delay, d1	20.0	4.8	16.4	8.7	19.8	9.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	1.8	1.2	1.4	0.0
Delay (s)	20.4	4.8	18.2	9.9	21.2	9.5
Level of Service	C	A	B	A	C	A
Approach Delay (s)		14.5	13.2		15.3	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	57.8	Sum of lost time (s)	12.7
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

























Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↶↶	↶	↶	↶	↶	↶		
Traffic Volume (veh/h)	366	222	369	577	218	222		
Future Volume (veh/h)	366	222	369	577	218	222		
Number	5	2	6	16	7	14		
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		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	398	241	401	627	237	241		
Adj No. of Lanes	2	1	1	1	1	1		
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	563	1197	741	918	322	547		
Arrive On Green	0.16	0.64	0.40	0.40	0.18	0.18		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	398	241	401	627	237	241		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	5.4	2.6	8.2	13.6	6.2	5.8		
Cycle Q Clear(g_c), s	5.4	2.6	8.2	13.6	6.2	5.8		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	563	1197	741	918	322	547		
V/C Ratio(X)	0.71	0.20	0.54	0.68	0.74	0.44		
Avail Cap(c_a), veh/h	1740	1507	1507	1569	1076	1220		
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	19.6	3.6	11.4	7.2	19.1	12.5		
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.3	1.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	1.3	4.2	12.2	3.1	5.5		
LnGrp Delay(d),s/veh	20.2	3.7	11.6	7.6	20.3	12.7		
LnGrp LOS	C	A	B	A	C	B		
Approach Vol, veh/h		639	1028		478			
Approach Delay, s/veh		13.9	9.2		16.5			
Approach LOS		B	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		35.9		13.6	12.1	23.8		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		4.6		8.2	7.4	15.6		
Green Ext Time (p_c), s		4.2		0.8	0.7	4.0		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			12.2					
HCM 2010 LOS			B					






















El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Existing Conditions

AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	282	34	10	725	150	81	31	6	85	14	98
Future Volume (vph)	115	282	34	10	725	150	81	31	6	85	14	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3483		1770	1863	1548		1798	1583	1770	1617	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3483		1770	1863	1548		1798	1583	1770	1617	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	126	310	37	11	797	165	89	34	7	93	15	108
RTOR Reduction (vph)	0	4	0	0	0	33	0	0	6	0	98	0
Lane Group Flow (vph)	126	343	0	11	797	132	0	123	1	93	25	0
Confl. Peds. (#/hr)	1					1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	11.7	64.3		1.1	53.7	53.7		13.6	13.6	9.9	9.9	
Effective Green, g (s)	11.7	64.3		1.1	53.7	53.7		13.6	13.6	9.9	9.9	
Actuated g/C Ratio	0.11	0.62		0.01	0.52	0.52		0.13	0.13	0.10	0.10	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	199	2161		18	965	802		236	207	169	154	
v/s Ratio Prot	c0.07	0.10		0.01	c0.43			c0.07		c0.05	0.02	
v/s Ratio Perm						0.09			0.00			
v/c Ratio	0.63	0.16		0.61	0.83	0.16		0.52	0.00	0.55	0.16	
Uniform Delay, d1	43.9	8.3		51.0	21.0	13.1		42.0	39.1	44.7	43.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.8	0.0		36.2	5.6	0.0		1.0	0.0	2.2	0.2	
Delay (s)	48.7	8.3		87.2	26.6	13.2		42.9	39.1	46.9	43.2	
Level of Service	D	A		F	C	B		D	D	D	D	
Approach Delay (s)		19.0			25.0			42.7			44.8	
Approach LOS		B			C			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			27.1				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			103.6				Sum of lost time (s)		14.7			
Intersection Capacity Utilization			67.9%				ICU Level of Service		C			
Analysis Period (min)			15									
c Critical Lane Group												



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	282	34	10	725	150	81	31	6	85	14	98
Future Volume (veh/h)	115	282	34	10	725	150	81	31	6	85	14	98
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	126	310	37	11	797	165	89	34	7	93	15	108
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	162	1819	215	19	914	776	135	52	165	190	21	151
Arrive On Green	0.09	0.57	0.57	0.01	0.49	0.49	0.10	0.10	0.10	0.11	0.11	0.11
Sat Flow, veh/h	1774	3188	377	1774	1863	1582	1301	497	1583	1774	197	1416
Grp Volume(v), veh/h	126	171	176	11	797	165	123	0	7	93	0	123
Grp Sat Flow(s),veh/h/ln	1774	1770	1796	1774	1863	1582	1798	0	1583	1774	0	1613
Q Serve(g_s), s	4.9	3.3	3.3	0.4	27.0	4.2	4.7	0.0	0.3	3.5	0.0	5.2
Cycle Q Clear(g_c), s	4.9	3.3	3.3	0.4	27.0	4.2	4.7	0.0	0.3	3.5	0.0	5.2
Prop In Lane	1.00		0.21	1.00		1.00	0.72		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	162	1010	1025	19	914	776	187	0	165	190	0	172
V/C Ratio(X)	0.78	0.17	0.17	0.56	0.87	0.21	0.66	0.00	0.04	0.49	0.00	0.71
Avail Cap(c_a), veh/h	500	1248	1267	500	1314	1116	761	0	670	500	0	455
HCM Platoon Ratio	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	7.2	7.2	34.9	16.1	10.3	30.5	0.0	28.6	29.8	0.0	30.6
Incr Delay (d2), s/veh	3.1	0.0	0.0	9.2	3.5	0.1	1.5	0.0	0.0	0.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.6	1.6	0.3	14.6	1.8	2.4	0.0	0.1	1.7	0.0	2.4
LnGrp Delay(d),s/veh	34.6	7.3	7.3	44.1	19.6	10.3	32.0	0.0	28.6	30.6	0.0	32.7
LnGrp LOS	C	A	A	D	B	B	C		C	C		C
Approach Vol, veh/h		473			973			130			216	
Approach Delay, s/veh		14.5			18.3			31.8			31.8	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	39.4		10.6	3.8	45.0		11.5				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	6.9	29.0		7.2	2.4	5.3		6.7				
Green Ext Time (p_c), s	0.1	5.8		0.5	0.0	6.5		0.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.9									
HCM 2010 LOS			B									

Intersection	
Intersection Delay, s/veh	23.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	6	357	203	240	225	2	89	2	171	4	2	6
Future Vol, veh/h	6	357	203	240	225	2	89	2	171	4	2	6
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	368	209	247	232	2	92	2	176	4	2	6
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	35.5	14.2	14.7	10.5
HCM LOS	E	B	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	34%	1%	100%	0%	33%
Vol Thru, %	1%	63%	0%	99%	17%
Vol Right, %	65%	36%	0%	1%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	262	566	240	227	12
LT Vol	89	6	240	0	4
Through Vol	2	357	0	225	2
RT Vol	171	203	0	2	6
Lane Flow Rate	270	584	247	234	12
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.466	0.881	0.462	0.404	0.025
Departure Headway (Hd)	6.214	5.435	6.726	6.21	7.309
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	575	665	534	576	493
Service Time	4.29	3.495	4.499	3.984	5.309
HCM Lane V/C Ratio	0.47	0.878	0.463	0.406	0.024
HCM Control Delay	14.7	35.5	15.2	13.2	10.5
HCM Lane LOS	B	E	C	B	B
HCM 95th-tile Q	2.5	10.6	2.4	1.9	0.1

**Intersection**

Int Delay, s/veh 3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	129	419	288	22	21	175
Future Vol, veh/h	129	419	288	22	21	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	137	446	306	23	22	186

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	330	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1229	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1229	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1229	-	-	-	579
HCM Lane V/C Ratio	0.112	-	-	-	0.36
HCM Control Delay (s)	8.3	0	-	-	14.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.6

El Dorado Senior Resort  
3: Koki Ln & SR 49

Existing Conditions

PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	379	47	42	276	15	37	0	44	15	0	6
Future Volume (vph)	15	379	47	42	276	15	37	0	44	15	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.98		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	
Satd. Flow (prot)	1770	1863	1583	1770	1846			1770	1550		1721	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	
Satd. Flow (perm)	1770	1863	1583	1770	1846			1770	1550		1721	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	16	403	50	45	294	16	39	0	47	16	0	6
RTOR Reduction (vph)	0	0	25	0	1	0	0	0	41	0	21	0
Lane Group Flow (vph)	16	403	25	45	309	0	0	39	6	0	1	0
Confl. Peds. (#/hr)	3					3	2		1	1		2
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	1.6	26.0	27.2	2.8	27.2			7.4	7.4		3.4	
Effective Green, g (s)	1.6	26.0	27.2	2.8	27.2			7.4	7.4		3.4	
Actuated g/C Ratio	0.03	0.48	0.50	0.05	0.50			0.14	0.14		0.06	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	51	885	787	90	917			239	209		106	
v/s Ratio Prot	0.01	c0.22		c0.03	0.17			c0.02			c0.00	
v/s Ratio Perm			0.02						0.00			
v/c Ratio	0.31	0.46	0.03	0.50	0.34			0.16	0.03		0.01	
Uniform Delay, d1	26.0	9.6	7.0	25.3	8.3			20.9	20.5		24.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.3	0.1	0.0	1.6	0.1			0.1	0.0		0.0	
Delay (s)	27.3	9.7	7.0	26.9	8.4			21.0	20.6		24.1	
Level of Service	C	A	A	C	A			C	C		C	
Approach Delay (s)		10.1			10.7			20.8			24.1	
Approach LOS		B			B			C			C	

Intersection Summary

HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	54.7	Sum of lost time (s)	15.1
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 analysis does not support custom phasing.

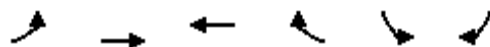


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↗
Traffic Volume (vph)	412	82	158	363	44	95
Future Volume (vph)	412	82	158	363	44	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1556	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1556	1770	1863	1770	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	429	85	165	378	46	99
RTOR Reduction (vph)	0	45	0	0	0	68
Lane Group Flow (vph)	429	40	165	378	46	31
Confl. Bikes (#/hr)		3				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	21.3	28.0	11.7	37.1	6.7	18.4
Effective Green, g (s)	21.3	28.0	11.7	37.1	6.7	18.4
Actuated g/C Ratio	0.36	0.47	0.20	0.62	0.11	0.31
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	665	731	347	1159	198	488
v/s Ratio Prot	c0.23	0.01	c0.09	0.20	c0.03	0.01
v/s Ratio Perm		0.02				0.01
v/c Ratio	0.65	0.05	0.48	0.33	0.23	0.06
Uniform Delay, d1	16.0	8.6	21.2	5.3	24.1	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.0	0.4	0.1	0.2	0.0
Delay (s)	17.6	8.6	21.6	5.4	24.3	14.5
Level of Service	B	A	C	A	C	B
Approach Delay (s)	16.1			10.3	17.6	
Approach LOS	B			B	B	

**Intersection Summary**

HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	17.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.



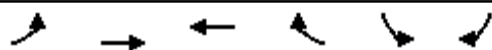
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	204	302	242	376	669	327
Future Volume (vph)	204	302	242	376	669	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	210	311	249	388	690	337
RTOR Reduction (vph)	0	0	0	109	0	137
Lane Group Flow (vph)	210	311	249	279	690	200
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	8.5	26.5	14.0	44.3	30.3	38.8
Effective Green, g (s)	8.5	26.5	14.0	44.3	30.3	38.8
Actuated g/C Ratio	0.13	0.40	0.21	0.68	0.46	0.59
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	445	753	398	1070	818	937
v/s Ratio Prot	0.06	c0.17	c0.13	0.12	c0.39	0.03
v/s Ratio Perm				0.06		0.10
v/c Ratio	0.47	0.41	0.63	0.26	0.84	0.21
Uniform Delay, d1	26.4	13.9	23.4	4.2	15.5	6.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	2.2	0.0	7.6	0.0
Delay (s)	26.7	14.1	25.6	4.2	23.1	6.3
Level of Service	C	B	C	A	C	A
Approach Delay (s)		19.2	12.6		17.6	
Approach LOS		B	B		B	

**Intersection Summary**

HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	12.7
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group





Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	204	302	242	376	669	327		
Future Volume (veh/h)	204	302	242	376	669	327		
Number	5	2	6	16	7	14		
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		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	210	311	249	388	690	337		
Adj No. of Lanes	2	1	1	1	1	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	342	740	408	1030	766	841		
Arrive On Green	0.10	0.40	0.22	0.22	0.43	0.43		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	210	311	249	388	690	337		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	3.0	6.1	6.1	5.8	18.4	6.4		
Cycle Q Clear(g_c), s	3.0	6.1	6.1	5.8	18.4	6.4		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	342	740	408	1030	766	841		
V/C Ratio(X)	0.61	0.42	0.61	0.38	0.90	0.40		
Avail Cap(c_a), veh/h	1693	1466	1466	1929	1047	1092		
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	22.0	11.1	17.9	4.1	13.4	7.1		
Incr Delay (d2), s/veh	0.7	0.1	0.6	0.1	6.9	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	1.4	3.1	3.2	7.3	10.3	6.9		
LnGrp Delay(d),s/veh	22.6	11.2	18.4	4.2	20.4	7.2		
LnGrp LOS	C	B	B	A	C	A		
Approach Vol, veh/h		521	637		1027			
Approach Delay, s/veh		15.8	9.8		16.0			
Approach LOS		B	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		24.3		26.5	9.1	15.2		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		8.1		20.4	5.0	8.1		
Green Ext Time (p_c), s		3.0		1.5	0.4	3.0		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			14.2					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Existing Conditions

PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	744	123	25	380	108	89	34	32	209	54	111
Future Volume (vph)	104	744	123	25	380	108	89	34	32	209	54	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3464		1770	1863	1547		1798	1563	1770	1675	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3464		1770	1863	1547		1798	1563	1770	1675	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	106	759	126	26	388	110	91	35	33	213	55	113
RTOR Reduction (vph)	0	10	0	0	0	64	0	0	27	0	51	0
Lane Group Flow (vph)	106	875	0	26	388	46	0	126	6	213	117	0
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	8.0	29.5		2.2	23.7	23.7		13.1	13.1	15.4	15.4	
Effective Green, g (s)	8.0	29.5		2.2	23.7	23.7		13.1	13.1	15.4	15.4	
Actuated g/C Ratio	0.11	0.39		0.03	0.32	0.32		0.17	0.17	0.21	0.21	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	189	1364		51	589	489		314	273	363	344	
v/s Ratio Prot	c0.06	c0.25		0.01	0.21			c0.07		c0.12	0.07	
v/s Ratio Perm						0.03			0.00			
v/c Ratio	0.56	0.64		0.51	0.66	0.09		0.40	0.02	0.59	0.34	
Uniform Delay, d1	31.8	18.4		35.8	22.1	18.0		27.4	25.6	26.9	25.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.3	0.8		2.9	2.0	0.0		0.3	0.0	1.6	0.2	
Delay (s)	34.0	19.2		38.7	24.1	18.1		27.7	25.6	28.4	25.6	
Level of Service	C	B		D	C	B		C	C	C	C	
Approach Delay (s)		20.8			23.6			27.3			27.2	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	14.7
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	744	123	25	380	108	89	34	32	209	54	111
Future Volume (veh/h)	104	744	123	25	380	108	89	34	32	209	54	111
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	106	759	126	26	388	110	91	35	33	213	55	113
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	138	1188	197	43	629	522	182	70	221	294	90	186
Arrive On Green	0.08	0.39	0.39	0.02	0.34	0.34	0.14	0.14	0.14	0.17	0.17	0.17
Sat Flow, veh/h	1774	3038	504	1774	1863	1548	1298	499	1578	1774	544	1119
Grp Volume(v), veh/h	106	442	443	26	388	110	126	0	33	213	0	168
Grp Sat Flow(s),veh/h/ln	1774	1770	1773	1774	1863	1548	1798	0	1578	1774	0	1663
Q Serve(g_s), s	3.1	10.7	10.7	0.8	9.2	2.7	3.4	0.0	1.0	6.0	0.0	4.9
Cycle Q Clear(g_c), s	3.1	10.7	10.7	0.8	9.2	2.7	3.4	0.0	1.0	6.0	0.0	4.9
Prop In Lane	1.00		0.28	1.00		1.00	0.72		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	138	692	693	43	629	522	252	0	221	294	0	276
V/C Ratio(X)	0.77	0.64	0.64	0.61	0.62	0.21	0.50	0.00	0.15	0.72	0.00	0.61
Avail Cap(c_a), veh/h	673	1678	1681	673	1766	1468	1023	0	898	673	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	13.0	13.0	25.5	14.6	12.5	21.0	0.0	19.9	20.8	0.0	20.4
Incr Delay (d2), s/veh	3.4	0.4	0.4	5.1	0.4	0.1	0.6	0.0	0.1	1.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	5.2	5.2	0.4	4.7	1.1	1.7	0.0	0.4	3.0	0.0	2.3
LnGrp Delay(d),s/veh	27.2	13.4	13.4	30.6	15.0	12.5	21.5	0.0	20.0	22.1	0.0	21.2
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		991			524			159			381	
Approach Delay, s/veh		14.9			15.2			21.2			21.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	22.4		11.7	4.3	25.2		11.5				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	5.1	11.2		8.0	2.8	12.7		5.4				
Green Ext Time (p_c), s	0.1	6.6		0.8	0.0	6.5		0.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.7									
HCM 2010 LOS			B									

Appendix C:

*Analysis Worksheets for  
Existing (2018) plus Proposed Project Conditions*

Intersection	
Intersection Delay, s/veh	72
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	298	98	168	293	1	216	1	290	0	0	0
Future Vol, veh/h	0	298	98	168	293	1	216	1	290	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	377	124	213	371	1	273	1	367	0	0	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	56.6	28.9	123.3	0
HCM LOS	F	D	F	-

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	43%	0%	100%	0%	0%
Vol Thru, %	0%	75%	0%	100%	100%
Vol Right, %	57%	25%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	507	396	168	294	0
LT Vol	216	0	168	0	0
Through Vol	1	298	0	293	0
RT Vol	290	98	0	1	0
Lane Flow Rate	642	501	213	372	0
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.183	0.95	0.476	0.781	0
Departure Headway (Hd)	6.638	7.428	8.731	8.21	9.85
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	552	491	415	443	0
Service Time	4.677	5.428	6.431	5.91	7.85
HCM Lane V/C Ratio	1.163	1.02	0.513	0.84	0
HCM Control Delay	123.3	56.6	19.1	34.5	12.9
HCM Lane LOS	F	F	C	D	N
HCM 95th-tile Q	22.8	11.7	2.5	6.8	0

Intersection						
Int Delay, s/veh	6.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	178	415	343	15	40	116
Future Vol, veh/h	178	415	343	15	40	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	220	512	423	19	49	143

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	442	0	-	0	1385 433
Stage 1	-	-	-	-	433 -
Stage 2	-	-	-	-	952 -
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	1118	-	-	-	158 623
Stage 1	-	-	-	-	654 -
Stage 2	-	-	-	-	375 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1118	-	-	-	115 623
Mov Cap-2 Maneuver	-	-	-	-	115 -
Stage 1	-	-	-	-	654 -
Stage 2	-	-	-	-	272 -

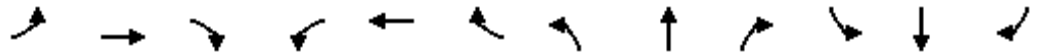
Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	38.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1118	-	-	-	292
HCM Lane V/C Ratio	0.197	-	-	-	0.66
HCM Control Delay (s)	9	0	-	-	38.3
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	4.3

El Dorado Senior Resort  
3: Koki Ln & SR 49

Existing plus Project Conditions

AM Peak



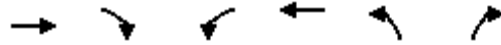
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	253	222	308	235	5	120	3	183	11	4	8
Future Volume (vph)	3	253	222	308	235	5	120	3	183	11	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1863	1544	1770	1856			1776	1583		1720	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1863	1544	1770	1856			1776	1583		1720	
Peak-hour factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	4	356	313	434	331	7	169	4	258	15	6	11
RTOR Reduction (vph)	0	0	109	0	0	0	0	0	217	0	10	0
Lane Group Flow (vph)	4	356	204	434	338	0	0	173	41	0	22	0
Confl. Peds. (#/hr)			2	2			4					4
Confl. Bikes (#/hr)			1			1						
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	3.3	20.2	46.8	29.9	46.8			13.2	13.2		5.6	
Effective Green, g (s)	3.3	20.2	46.8	29.9	46.8			13.2	13.2		5.6	
Actuated g/C Ratio	0.04	0.24	0.56	0.36	0.56			0.16	0.16		0.07	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	69	448	860	630	1034			279	248		114	
v/s Ratio Prot	0.00	c0.19		c0.25	0.18			c0.10			c0.01	
v/s Ratio Perm			0.13						0.03			
v/c Ratio	0.06	0.79	0.24	0.69	0.33			0.62	0.16		0.19	
Uniform Delay, d1	38.9	30.0	9.5	23.1	10.1			33.1	30.6		37.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.1	8.8	0.1	2.5	0.1			3.1	0.1		0.3	
Delay (s)	39.0	38.8	9.5	25.6	10.1			36.1	30.7		37.4	
Level of Service	D	D	A	C	B			D	C		D	
Approach Delay (s)		25.2			18.8			32.9			37.4	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 analysis does not support custom phasing.



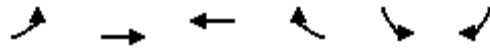


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	390	49	47	493	84	154
Future Volume (vph)	390	49	47	493	84	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1559	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1559	1770	1863	1770	1583
Peak-hour factor, PHF	0.84	0.84	1.00	0.84	0.84	0.84
Adj. Flow (vph)	464	58	47	587	100	183
RTOR Reduction (vph)	0	29	0	0	0	131
Lane Group Flow (vph)	464	29	47	587	100	52
Confl. Bikes (#/hr)		1				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	20.5	27.9	8.7	33.3	7.4	16.1
Effective Green, g (s)	20.5	27.9	8.7	33.3	7.4	16.1
Actuated g/C Ratio	0.36	0.49	0.15	0.59	0.13	0.28
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	675	769	272	1098	231	451
v/s Ratio Prot	c0.25	0.00	0.03	c0.32	c0.06	0.02
v/s Ratio Perm		0.01				0.02
v/c Ratio	0.69	0.04	0.17	0.53	0.43	0.12
Uniform Delay, d1	15.3	7.4	20.8	7.0	22.6	14.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3	0.0	0.1	0.3	0.5	0.0
Delay (s)	17.6	7.4	20.9	7.2	23.1	15.0
Level of Service	B	A	C	A	C	B
Approach Delay (s)	16.5			8.2	17.8	
Approach LOS	B			A	B	

**Intersection Summary**

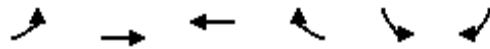
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	56.5	Sum of lost time (s)	17.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	371	231	377	577	218	226
Future Volume (vph)	371	231	377	577	218	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1566
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1566
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	403	251	410	627	237	246
RTOR Reduction (vph)	0	0	0	47	0	136
Lane Group Flow (vph)	403	251	410	580	237	110
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	12.7	36.3	19.6	33.0	13.4	26.1
Effective Green, g (s)	12.7	36.3	19.6	33.0	13.4	26.1
Actuated g/C Ratio	0.22	0.62	0.34	0.57	0.23	0.45
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	746	1157	625	894	406	699
v/s Ratio Prot	c0.12	0.13	c0.22	c0.15	0.13	0.03
v/s Ratio Perm				0.22		0.04
v/c Ratio	0.54	0.22	0.66	0.65	0.58	0.16
Uniform Delay, d1	20.3	4.8	16.5	8.7	20.0	9.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	1.9	1.2	1.4	0.0
Delay (s)	20.7	4.9	18.4	9.9	21.4	9.6
Level of Service	C	A	B	A	C	A
Approach Delay (s)		14.6	13.3		15.4	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

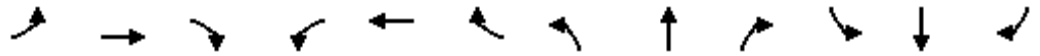


Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↖↗	↑	↑	↖	↖	↖		
Traffic Volume (veh/h)	371	231	377	577	218	226		
Future Volume (veh/h)	371	231	377	577	218	226		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	403	251	410	627	237	246		
Adj No. of Lanes	2	1	1	1	1	1		
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	567	1199	743	918	322	548		
Arrive On Green	0.16	0.64	0.40	0.40	0.18	0.18		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	403	251	410	627	237	246		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	5.5	2.8	8.5	13.7	6.3	6.0		
Cycle Q Clear(g_c), s	5.5	2.8	8.5	13.7	6.3	6.0		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	567	1199	743	918	322	548		
V/C Ratio(X)	0.71	0.21	0.55	0.68	0.74	0.45		
Avail Cap(c_a), veh/h	1728	1496	1496	1559	1069	1215		
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	19.7	3.6	11.5	7.3	19.3	12.6		
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.3	1.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	1.4	4.4	12.3	3.1	5.6		
LnGrp Delay(d),s/veh	20.3	3.7	11.8	7.6	20.5	12.8		
LnGrp LOS	C	A	B	A	C	B		
Approach Vol, veh/h		654	1037		483			
Approach Delay, s/veh		13.9	9.3		16.6			
Approach LOS		B	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		36.2		13.6	12.2	24.0		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		4.8		8.3	7.5	15.7		
Green Ext Time (p_c), s		4.3		0.8	0.7	4.1		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			12.3					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd






















Existing plus Project Conditions

AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	286	34	10	729	150	81	31	6	85	14	102
Future Volume (vph)	120	286	34	10	729	150	81	31	6	85	14	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3483		1770	1863	1548		1798	1583	1770	1616	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3483		1770	1863	1548		1798	1583	1770	1616	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	132	314	37	11	801	165	89	34	7	93	15	112
RTOR Reduction (vph)	0	4	0	0	0	33	0	0	6	0	101	0
Lane Group Flow (vph)	132	347	0	11	801	132	0	123	1	93	26	0
Confl. Peds. (#/hr)	1					1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	12.1	64.6		1.1	53.6	53.6		13.6	13.6	9.9	9.9	
Effective Green, g (s)	12.1	64.6		1.1	53.6	53.6		13.6	13.6	9.9	9.9	
Actuated g/C Ratio	0.12	0.62		0.01	0.52	0.52		0.13	0.13	0.10	0.10	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	206	2165		18	961	798		235	207	168	153	
v/s Ratio Prot	c0.07	0.10		0.01	c0.43			c0.07		c0.05	0.02	
v/s Ratio Perm						0.09			0.00			
v/c Ratio	0.64	0.16		0.61	0.83	0.17		0.52	0.00	0.55	0.17	
Uniform Delay, d1	43.8	8.3		51.2	21.4	13.3		42.1	39.3	44.9	43.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.0	0.0		36.2	6.0	0.0		1.0	0.0	2.2	0.2	
Delay (s)	48.8	8.3		87.4	27.4	13.3		43.1	39.3	47.1	43.4	
Level of Service	D	A		F	C	B		D	D	D	D	
Approach Delay (s)		19.4			25.7			42.9			45.0	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	103.9	Sum of lost time (s)	14.7
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	286	34	10	729	150	81	31	6	85	14	102
Future Volume (veh/h)	120	286	34	10	729	150	81	31	6	85	14	102
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	132	314	37	11	801	165	89	34	7	93	15	112
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	168	1835	215	19	914	776	133	51	162	193	21	155
Arrive On Green	0.09	0.57	0.57	0.01	0.49	0.49	0.10	0.10	0.10	0.11	0.11	0.11
Sat Flow, veh/h	1774	3193	373	1774	1863	1582	1301	497	1583	1774	190	1422
Grp Volume(v), veh/h	132	173	178	11	801	165	123	0	7	93	0	127
Grp Sat Flow(s),veh/h/ln	1774	1770	1797	1774	1863	1582	1798	0	1583	1774	0	1612
Q Serve(g_s), s	5.3	3.3	3.4	0.4	27.8	4.3	4.8	0.0	0.3	3.6	0.0	5.5
Cycle Q Clear(g_c), s	5.3	3.3	3.4	0.4	27.8	4.3	4.8	0.0	0.3	3.6	0.0	5.5
Prop In Lane	1.00		0.21	1.00		1.00	0.72		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	168	1017	1033	19	914	776	184	0	162	193	0	176
V/C Ratio(X)	0.78	0.17	0.17	0.57	0.88	0.21	0.67	0.00	0.04	0.48	0.00	0.72
Avail Cap(c_a), veh/h	490	1221	1239	490	1285	1091	744	0	655	490	0	445
HCM Platoon Ratio	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	7.3	7.3	35.7	16.5	10.5	31.3	0.0	29.3	30.4	0.0	31.2
Incr Delay (d2), s/veh	3.0	0.0	0.0	9.2	4.0	0.1	1.6	0.0	0.0	0.7	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.6	1.7	0.3	15.0	1.9	2.4	0.0	0.1	1.8	0.0	2.6
LnGrp Delay(d),s/veh	35.1	7.3	7.3	44.9	20.5	10.5	32.9	0.0	29.4	31.0	0.0	33.3
LnGrp LOS	D	A	A	D	C	B	C		C	C		C
Approach Vol, veh/h		483			977			130			220	
Approach Delay, s/veh		14.9			19.1			32.7			32.4	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	40.2		10.9	3.8	46.3		11.5				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	7.3	29.8		7.5	2.4	5.4		6.8				
Green Ext Time (p_c), s	0.1	5.7		0.5	0.0	6.5		0.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.5									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	20	1	1	286	515	19
Future Vol, veh/h	20	1	1	286	515	19
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	22	1	1	311	560	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	883	570	580	0	-	0
Stage 1	570	-	-	-	-	-
Stage 2	313	-	-	-	-	-
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	316	521	994	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	316	521	994	-	-	-
Mov Cap-2 Maneuver	316	-	-	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	994	-	322	-	-
HCM Lane V/C Ratio	0.001	-	0.071	-	-
HCM Control Delay (s)	8.6	0	17	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	24.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	6	361	203	243	229	2	89	2	174	4	2	6
Future Vol, veh/h	6	361	203	243	229	2	89	2	174	4	2	6
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	372	209	251	236	2	92	2	179	4	2	6
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	37.2	14.4	14.9	10.6
HCM LOS	E	B	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	34%	1%	100%	0%	33%
Vol Thru, %	1%	63%	0%	99%	17%
Vol Right, %	66%	36%	0%	1%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	265	570	243	231	12
LT Vol	89	6	243	0	4
Through Vol	2	361	0	229	2
RT Vol	174	203	0	2	6
Lane Flow Rate	273	588	251	238	12
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.474	0.892	0.47	0.413	0.025
Departure Headway (Hd)	6.24	5.462	6.753	6.238	7.367
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	574	658	531	574	489
Service Time	4.317	3.525	4.53	4.015	5.367
HCM Lane V/C Ratio	0.476	0.894	0.473	0.415	0.025
HCM Control Delay	14.9	37.2	15.4	13.4	10.6
HCM Lane LOS	B	E	C	B	B
HCM 95th-tile Q	2.5	11	2.5	2	0.1



Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	129	426	295	22	21	175
Future Vol, veh/h	129	426	295	22	21	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	137	453	314	23	22	186

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	337	0	0	1054	326
Stage 1	-	-	-	326	-
Stage 2	-	-	-	728	-
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	1222	-	-	250	715
Stage 1	-	-	-	731	-
Stage 2	-	-	-	478	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1222	-	-	213	715
Mov Cap-2 Maneuver	-	-	-	213	-
Stage 1	-	-	-	731	-
Stage 2	-	-	-	406	-






















Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1222	-	-	-	571
HCM Lane V/C Ratio	0.112	-	-	-	0.365
HCM Control Delay (s)	8.3	0	-	-	14.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.7

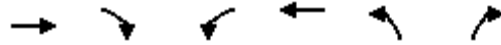
El Dorado Senior Resort  
3: Koki Ln & SR 49

Existing plus Project Conditions

PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	379	54	64	276	15	44	0	67	15	0	6
Future Volume (vph)	15	379	54	64	276	15	44	0	67	15	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.98		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	
Satd. Flow (prot)	1770	1863	1583	1770	1846			1770	1550		1721	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	
Satd. Flow (perm)	1770	1863	1583	1770	1846			1770	1550		1721	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	16	403	57	68	294	16	47	0	71	16	0	6
RTOR Reduction (vph)	0	0	28	0	1	0	0	0	62	0	21	0
Lane Group Flow (vph)	16	403	29	68	309	0	0	47	9	0	1	0
Confl. Peds. (#/hr)	3					3	2		1	1		2
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	1.7	24.1	28.2	5.8	28.2			7.4	7.4		3.4	
Effective Green, g (s)	1.7	24.1	28.2	5.8	28.2			7.4	7.4		3.4	
Actuated g/C Ratio	0.03	0.43	0.51	0.10	0.51			0.13	0.13		0.06	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	53	804	800	183	932			234	205		104	
v/s Ratio Prot	0.01	c0.22		c0.04	0.17			c0.03			c0.00	
v/s Ratio Perm			0.02						0.01			
v/c Ratio	0.30	0.50	0.04	0.37	0.33			0.20	0.05		0.01	
Uniform Delay, d1	26.5	11.5	7.0	23.3	8.2			21.6	21.1		24.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.2	0.2	0.0	0.5	0.1			0.2	0.0		0.0	
Delay (s)	27.6	11.7	7.0	23.8	8.3			21.7	21.2		24.6	
Level of Service	C	B	A	C	A			C	C		C	
Approach Delay (s)		11.6			11.1			21.4			24.6	
Approach LOS		B			B			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			12.9									B
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			55.8								15.1	
Intersection Capacity Utilization			42.9%									A
Analysis Period (min)			15									
c Critical Lane Group												

HCM 2010 analysis does not support custom phasing.

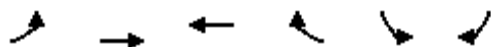


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↗
Traffic Volume (vph)	432	85	158	383	46	95
Future Volume (vph)	432	85	158	383	46	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1556	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1556	1770	1863	1770	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	450	89	165	399	48	99
RTOR Reduction (vph)	0	47	0	0	0	69
Lane Group Flow (vph)	450	42	165	399	48	30
Confl. Bikes (#/hr)		3				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	22.3	29.0	11.9	38.3	6.7	18.6
Effective Green, g (s)	22.3	29.0	11.9	38.3	6.7	18.6
Actuated g/C Ratio	0.37	0.48	0.20	0.63	0.11	0.31
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	683	742	346	1173	195	484
v/s Ratio Prot	c0.24	0.01	c0.09	0.21	c0.03	0.01
v/s Ratio Perm		0.02				0.01
v/c Ratio	0.66	0.06	0.48	0.34	0.25	0.06
Uniform Delay, d1	16.1	8.5	21.7	5.3	24.7	14.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8	0.0	0.4	0.1	0.2	0.0
Delay (s)	17.8	8.6	22.1	5.4	25.0	15.0
Level of Service	B	A	C	A	C	B
Approach Delay (s)	16.3			10.2	18.2	
Approach LOS	B			B	B	

**Intersection Summary**

HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.

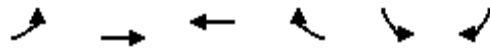


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	211	315	255	376	669	334
Future Volume (vph)	211	315	255	376	669	334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	218	325	263	388	690	344
RTOR Reduction (vph)	0	0	0	104	0	141
Lane Group Flow (vph)	218	325	263	284	690	203
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	8.7	27.1	14.4	44.7	30.3	39.0
Effective Green, g (s)	8.7	27.1	14.4	44.7	30.3	39.0
Actuated g/C Ratio	0.13	0.41	0.22	0.68	0.46	0.59
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	451	763	405	1070	811	933
v/s Ratio Prot	0.06	c0.17	c0.14	0.12	c0.39	0.03
v/s Ratio Perm				0.06		0.10
v/c Ratio	0.48	0.43	0.65	0.27	0.85	0.22
Uniform Delay, d1	26.6	13.9	23.6	4.2	15.9	6.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	2.7	0.0	8.2	0.0
Delay (s)	26.9	14.1	26.2	4.3	24.1	6.4
Level of Service	C	B	C	A	C	A
Approach Delay (s)		19.2	13.1		18.2	
Approach LOS		B	B		B	

**Intersection Summary**

HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	66.1	Sum of lost time (s)	12.7
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

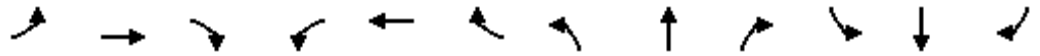


Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↖ ↗	→	←	↗ ↖	↘ ↙	↘ ↙		
Traffic Volume (veh/h)	211	315	255	376	669	334		
Future Volume (veh/h)	211	315	255	376	669	334		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	218	325	263	388	690	344		
Adj No. of Lanes	2	1	1	1	1	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	350	752	420	1038	763	842		
Arrive On Green	0.10	0.40	0.23	0.23	0.43	0.43		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	218	325	263	388	690	344		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	3.2	6.6	6.7	5.8	19.0	6.8		
Cycle Q Clear(g_c), s	3.2	6.6	6.7	5.8	19.0	6.8		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	350	752	420	1038	763	842		
V/C Ratio(X)	0.62	0.43	0.63	0.37	0.90	0.41		
Avail Cap(c_a), veh/h	1644	1424	1424	1891	1017	1068		
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	22.6	11.3	18.3	4.1	13.9	7.3		
Incr Delay (d2), s/veh	0.7	0.1	0.6	0.1	7.7	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	1.5	3.4	3.5	7.6	10.8	7.3		
LnGrp Delay(d),s/veh	23.2	11.4	18.8	4.2	21.6	7.5		
LnGrp LOS	C	B	B	A	C	A		
Approach Vol, veh/h		543	651		1034			
Approach Delay, s/veh		16.2	10.1		16.9			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		25.2		27.1	9.3	15.9		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		8.6		21.0	5.2	8.7		
Green Ext Time (p_c), s		3.1		1.5	0.4	3.1		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			14.7					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Existing plus Project Conditions

PM Peak
























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	750	123	25	386	108	89	34	32	209	54	118
Future Volume (vph)	111	750	123	25	386	108	89	34	32	209	54	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3464		1770	1863	1547		1798	1563	1770	1671	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.97	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3464		1770	1863	1547		1798	1563	1770	1671	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	113	765	126	26	394	110	91	35	33	213	55	120
RTOR Reduction (vph)	0	10	0	0	0	63	0	0	27	0	54	0
Lane Group Flow (vph)	113	881	0	26	394	47	0	126	6	213	121	0
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	8.3	30.2		2.3	24.2	24.2		13.2	13.2	15.4	15.4	
Effective Green, g (s)	8.3	30.2		2.3	24.2	24.2		13.2	13.2	15.4	15.4	
Actuated g/C Ratio	0.11	0.40		0.03	0.32	0.32		0.17	0.17	0.20	0.20	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	193	1380		53	594	493		313	272	359	339	
v/s Ratio Prot	c0.06	c0.25		0.01	0.21			c0.07		c0.12	0.07	
v/s Ratio Perm						0.03			0.00			
v/c Ratio	0.59	0.64		0.49	0.66	0.09		0.40	0.02	0.59	0.36	
Uniform Delay, d1	32.1	18.4		36.2	22.3	18.1		27.8	25.9	27.4	25.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.9	0.7		2.6	2.2	0.0		0.3	0.0	1.8	0.2	
Delay (s)	35.0	19.1		38.8	24.4	18.1		28.1	26.0	29.1	26.2	
Level of Service	D	B		D	C	B		C	C	C	C	
Approach Delay (s)		20.9			23.8			27.7			27.8	
Approach LOS		C			C			C			C	

Intersection Summary		
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.59	C
Actuated Cycle Length (s)	75.8	Sum of lost time (s)
Intersection Capacity Utilization	60.8%	14.7
Analysis Period (min)	15	ICU Level of Service
		B

c Critical Lane Group



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	750	123	25	386	108	89	34	32	209	54	118
Future Volume (veh/h)	111	750	123	25	386	108	89	34	32	209	54	118
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	113	765	126	26	394	110	91	35	33	213	55	120
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	147	1211	199	42	632	525	180	69	218	294	86	188
Arrive On Green	0.08	0.40	0.40	0.02	0.34	0.34	0.14	0.14	0.14	0.17	0.17	0.17
Sat Flow, veh/h	1774	3042	501	1774	1863	1548	1298	499	1578	1774	522	1138
Grp Volume(v), veh/h	113	445	446	26	394	110	126	0	33	213	0	175
Grp Sat Flow(s),veh/h/ln	1774	1770	1774	1774	1863	1548	1798	0	1578	1774	0	1660
Q Serve(g_s), s	3.3	10.8	10.9	0.8	9.5	2.7	3.5	0.0	1.0	6.1	0.0	5.3
Cycle Q Clear(g_c), s	3.3	10.8	10.9	0.8	9.5	2.7	3.5	0.0	1.0	6.1	0.0	5.3
Prop In Lane	1.00		0.28	1.00		1.00	0.72		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	147	704	706	42	632	525	249	0	218	294	0	275
V/C Ratio(X)	0.77	0.63	0.63	0.61	0.62	0.21	0.51	0.00	0.15	0.72	0.00	0.64
Avail Cap(c_a), veh/h	661	1649	1653	661	1736	1442	1005	0	882	661	0	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	13.0	13.0	25.9	14.9	12.6	21.4	0.0	20.3	21.2	0.0	20.9
Incr Delay (d2), s/veh	3.2	0.4	0.4	5.2	0.4	0.1	0.6	0.0	0.1	1.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.3	5.3	0.4	4.9	1.2	1.8	0.0	0.4	3.1	0.0	2.5
LnGrp Delay(d),s/veh	27.3	13.3	13.3	31.1	15.2	12.7	22.0	0.0	20.5	22.5	0.0	21.8
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		1004			530			159			388	
Approach Delay, s/veh		14.9			15.5			21.7			22.2	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	22.8		11.9	4.3	26.0		11.5				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	5.3	11.5		8.1	2.8	12.9		5.5				
Green Ext Time (p_c), s	0.1	6.6		0.8	0.0	6.6		0.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.9									
HCM 2010 LOS			B									

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	30	1	1	81	89	29
Future Vol, veh/h	30	1	1	81	89	29
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	33	1	1	88	97	32

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	203	113	128	0	0
Stage 1	113	-	-	-	-
Stage 2	90	-	-	-	-
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	786	940	1458	-	-
Stage 1	912	-	-	-	-
Stage 2	934	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	785	940	1458	-	-
Mov Cap-2 Maneuver	785	-	-	-	-
Stage 1	912	-	-	-	-
Stage 2	933	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1458	-	789	-	-
HCM Lane V/C Ratio	0.001	-	0.043	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Appendix D:

*Near-Term (2028) Traffic Volumes*

Intersection	
Intersection Delay, s/veh	69.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	2	330	105	168	323	2	228	1	288	0	0	2
Future Vol, veh/h	2	330	105	168	323	2	228	1	288	0	0	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	393	125	200	385	2	271	1	343	0	0	2
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	65.5	31.4	110.6	12.3
HCM LOS	F	D	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	44%	0%	100%	0%	0%
Vol Thru, %	0%	76%	0%	99%	0%
Vol Right, %	56%	24%	0%	1%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	517	437	168	325	2
LT Vol	228	2	168	0	0
Through Vol	1	330	0	323	0
RT Vol	288	105	0	2	2
Lane Flow Rate	615	520	200	387	2
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.147	0.99	0.45	0.816	0.006
Departure Headway (Hd)	6.711	7.373	8.7	8.177	9.283
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	542	494	416	445	388
Service Time	4.779	5.373	6.4	5.877	7.283
HCM Lane V/C Ratio	1.135	1.053	0.481	0.87	0.005
HCM Control Delay	110.6	65.5	18.3	38.2	12.3
HCM Lane LOS	F	F	C	E	B
HCM 95th-tile Q	20.8	13.2	2.3	7.6	0

**Intersection**

Int Delay, s/veh 6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	180	437	371	16	41	118
Future Vol, veh/h	180	437	371	16	41	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	209	508	431	19	48	137

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	450	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1110	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1110	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

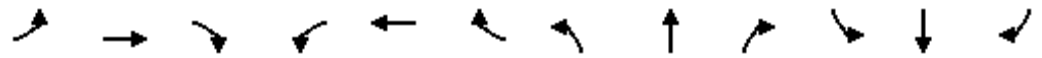
Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	35
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1110	-	-	-	298
HCM Lane V/C Ratio	0.189	-	-	-	0.62
HCM Control Delay (s)	9	0	-	-	35
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	3.9

El Dorado Senior Resort  
3: Koki Ln & SR 49

Near-Term (2028) Conditions

AM Peak



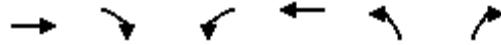
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	265	230	295	251	8	131	4	182	13	4	10
Future Volume (vph)	5	265	230	295	251	8	131	4	182	13	4	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1863	1544	1770	1853			1776	1583		1710	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1863	1544	1770	1853			1776	1583		1710	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	7	353	307	393	335	11	175	5	243	17	5	13
RTOR Reduction (vph)	0	0	108	0	0	0	0	0	204	0	12	0
Lane Group Flow (vph)	7	353	199	393	346	0	0	180	39	0	23	0
Confl. Peds. (#/hr)			2	2			4					4
Confl. Bikes (#/hr)			1			1						
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	3.3	20.1	46.8	30.0	46.8			13.5	13.5		5.6	
Effective Green, g (s)	3.3	20.1	46.8	30.0	46.8			13.5	13.5		5.6	
Actuated g/C Ratio	0.04	0.24	0.56	0.36	0.56			0.16	0.16		0.07	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	69	444	857	629	1028			284	253		113	
v/s Ratio Prot	0.00	c0.19		c0.22	0.19			c0.10			c0.01	
v/s Ratio Perm			0.13						0.02			
v/c Ratio	0.10	0.80	0.23	0.62	0.34			0.63	0.15		0.20	
Uniform Delay, d1	39.1	30.2	9.6	22.5	10.3			33.1	30.5		37.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.2	8.9	0.1	1.4	0.1			3.4	0.1		0.3	
Delay (s)	39.3	39.1	9.6	23.9	10.3			36.5	30.6		37.6	
Level of Service	D	D	A	C	B			D	C		D	
Approach Delay (s)		25.5			17.5			33.1			37.6	
Approach LOS		C			B			C			D	

Intersection Summary

HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	84.3	Sum of lost time (s)	15.1
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 analysis does not support custom phasing.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	397	55	56	488	94	169
Future Volume (vph)	397	55	56	488	94	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1562	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1562	1770	1863	1770	1583
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	446	62	63	548	106	190
RTOR Reduction (vph)	0	31	0	0	0	129
Lane Group Flow (vph)	446	31	63	548	106	61
Confl. Bikes (#/hr)		1				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	19.2	29.4	8.5	31.8	10.2	18.7
Effective Green, g (s)	19.2	29.4	8.5	31.8	10.2	18.7
Actuated g/C Ratio	0.33	0.51	0.15	0.55	0.18	0.32
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	617	793	259	1023	311	511
v/s Ratio Prot	c0.24	0.01	0.04	c0.29	c0.06	0.02
v/s Ratio Perm		0.01				0.02
v/c Ratio	0.72	0.04	0.24	0.54	0.34	0.12
Uniform Delay, d1	17.0	7.2	21.9	8.3	20.9	13.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.6	0.0	0.2	0.3	0.2	0.0
Delay (s)	20.6	7.2	22.0	8.6	21.1	13.8
Level of Service	C	A	C	A	C	B
Approach Delay (s)	18.9			10.0	16.5	
Approach LOS	B			A	B	

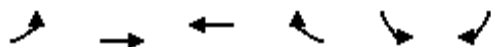
**Intersection Summary**

HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	57.9	Sum of lost time (s)	17.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



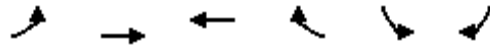
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HCM 2010 methodology does not support exclusive ped or hold phases.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↗	↑	↑	↖	↖	↖
Traffic Volume (vph)	386	236	369	577	218	235
Future Volume (vph)	386	236	369	577	218	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1567
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1567
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	420	257	401	627	237	255
RTOR Reduction (vph)	0	0	0	44	0	140
Lane Group Flow (vph)	420	257	401	583	237	115
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	13.1	36.5	19.4	32.8	13.4	26.5
Effective Green, g (s)	13.1	36.5	19.4	32.8	13.4	26.5
Actuated g/C Ratio	0.22	0.62	0.33	0.56	0.23	0.45
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	767	1160	616	886	404	708
v/s Ratio Prot	c0.12	0.14	0.22	c0.15	0.13	0.04
v/s Ratio Perm				0.22		0.04
v/c Ratio	0.55	0.22	0.65	0.66	0.59	0.16
Uniform Delay, d1	20.1	4.8	16.7	9.0	20.1	9.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	1.9	1.4	1.4	0.0
Delay (s)	20.6	4.9	18.6	10.4	21.5	9.5
Level of Service	C	A	B	B	C	A
Approach Delay (s)		14.6	13.6		15.3	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	58.6	Sum of lost time (s)	12.7
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

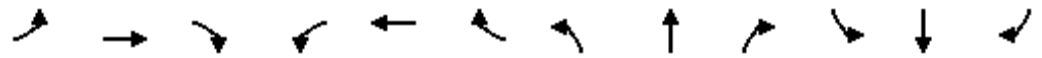


Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	386	236	369	577	218	235		
Future Volume (veh/h)	386	236	369	577	218	235		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	420	257	401	627	237	255		
Adj No. of Lanes	2	1	1	1	1	1		
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	584	1204	740	916	321	555		
Arrive On Green	0.17	0.65	0.40	0.40	0.18	0.18		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	420	257	401	627	237	255		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	5.8	2.9	8.3	13.9	6.4	6.3		
Cycle Q Clear(g_c), s	5.8	2.9	8.3	13.9	6.4	6.3		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	584	1204	740	916	321	555		
V/C Ratio(X)	0.72	0.21	0.54	0.68	0.74	0.46		
Avail Cap(c_a), veh/h	1706	1477	1477	1542	1055	1210		
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	19.8	3.7	11.7	7.4	19.5	12.7		
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.3	1.3	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.8	1.4	4.3	12.5	3.2	5.9		
LnGrp Delay(d),s/veh	20.4	3.7	11.9	7.8	20.8	12.9		
LnGrp LOS	C	A	B	A	C	B		
Approach Vol, veh/h		677	1028		492			
Approach Delay, s/veh		14.1	9.4		16.7			
Approach LOS		B	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		36.7		13.7	12.6	24.2		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		4.9		8.4	7.8	15.9		
Green Ext Time (p_c), s		4.3		0.8	0.8	4.1		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			12.5					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Near-Term (2028) Conditions






















AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↖	↗	↖	↗	↗
Traffic Volume (vph)	115	303	50	11	725	251	98	31	8	105	14	98
Future Volume (vph)	115	303	50	11	725	251	98	31	8	105	14	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3464		1770	1863	1548		1795	1583	1770	1618	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3464		1770	1863	1548		1795	1583	1770	1618	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	329	54	12	788	273	107	34	9	114	15	107
RTOR Reduction (vph)	0	6	0	0	0	57	0	0	8	0	96	0
Lane Group Flow (vph)	125	377	0	12	788	216	0	141	1	114	26	0
Confl. Peds. (#/hr)	1					1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	11.8	64.4		1.1	53.7	53.7		14.4	14.4	11.2	11.2	
Effective Green, g (s)	11.8	64.4		1.1	53.7	53.7		14.4	14.4	11.2	11.2	
Actuated g/C Ratio	0.11	0.61		0.01	0.51	0.51		0.14	0.14	0.11	0.11	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	197	2108		18	945	785		244	215	187	171	
v/s Ratio Prot	c0.07	0.11		0.01	c0.42			c0.08		c0.06	0.02	
v/s Ratio Perm						0.14			0.00			
v/c Ratio	0.63	0.18		0.67	0.83	0.28		0.58	0.01	0.61	0.15	
Uniform Delay, d1	44.9	9.1		52.2	22.2	14.9		42.9	39.5	45.2	43.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.8	0.0		54.1	6.1	0.1		2.1	0.0	3.8	0.2	
Delay (s)	49.8	9.1		106.3	28.4	15.0		44.9	39.5	49.0	43.1	
Level of Service	D	A		F	C	B		D	D	D	D	
Approach Delay (s)		19.1			25.8			44.6			46.0	
Approach LOS		B			C			D			D	

Intersection Summary

HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	105.8	Sum of lost time (s)	14.7
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	303	50	11	725	251	98	31	8	105	14	98
Future Volume (veh/h)	115	303	50	11	725	251	98	31	8	105	14	98
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	125	329	54	12	788	273	107	34	9	114	15	107
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	160	1731	281	21	911	774	145	46	169	190	21	151
Arrive On Green	0.09	0.57	0.57	0.01	0.49	0.49	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1774	3049	495	1774	1863	1582	1362	433	1583	1774	198	1415
Grp Volume(v), veh/h	125	190	193	12	788	273	141	0	9	114	0	122
Grp Sat Flow(s),veh/h/ln	1774	1770	1775	1774	1863	1582	1795	0	1583	1774	0	1613
Q Serve(g_s), s	4.9	3.7	3.8	0.5	26.6	7.6	5.4	0.0	0.4	4.4	0.0	5.2
Cycle Q Clear(g_c), s	4.9	3.7	3.8	0.5	26.6	7.6	5.4	0.0	0.4	4.4	0.0	5.2
Prop In Lane	1.00		0.28	1.00		1.00	0.76		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	160	1005	1008	21	911	774	191	0	169	190	0	173
V/C Ratio(X)	0.78	0.19	0.19	0.57	0.86	0.35	0.74	0.00	0.05	0.60	0.00	0.71
Avail Cap(c_a), veh/h	499	1244	1247	499	1309	1112	757	0	668	499	0	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.7	7.4	7.5	35.0	16.1	11.2	30.8	0.0	28.5	30.3	0.0	30.7
Incr Delay (d2), s/veh	3.1	0.0	0.0	8.7	3.2	0.1	2.1	0.0	0.0	1.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.8	1.8	0.3	14.4	3.3	2.8	0.0	0.2	2.2	0.0	2.4
LnGrp Delay(d),s/veh	34.7	7.5	7.5	43.7	19.3	11.3	32.9	0.0	28.6	31.4	0.0	32.7
LnGrp LOS	C	A	A	D	B	B	C		C	C		C
Approach Vol, veh/h		508			1073			150				236
Approach Delay, s/veh		14.2			17.5			32.6				32.1
Approach LOS		B			B			C				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	39.4		10.6	3.8	45.0		11.7				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	6.9	28.6		7.2	2.5	5.8		7.4				
Green Ext Time (p_c), s	0.1	6.2		0.5	0.0	6.9		0.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.6									
HCM 2010 LOS			B									

Intersection	
Intersection Delay, s/veh	40.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	8	381	217	240	255	2	97	2	175	4	2	8
Future Vol, veh/h	8	381	217	240	255	2	97	2	175	4	2	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	414	236	261	277	2	105	2	190	4	2	9
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	70.8	16.6	17.3	11.2
HCM LOS	F	C	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	35%	1%	100%	0%	29%
Vol Thru, %	1%	63%	0%	99%	14%
Vol Right, %	64%	36%	0%	1%	57%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	274	606	240	257	14
LT Vol	97	8	240	0	4
Through Vol	2	381	0	255	2
RT Vol	175	217	0	2	8
Lane Flow Rate	298	659	261	279	15
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.543	1.041	0.512	0.508	0.033
Departure Headway (Hd)	6.668	5.692	7.176	6.659	7.914
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	545	632	506	545	455
Service Time	4.668	3.778	4.876	4.359	5.914
HCM Lane V/C Ratio	0.547	1.043	0.516	0.512	0.033
HCM Control Delay	17.3	70.8	17.2	16	11.2
HCM Lane LOS	C	F	C	C	B
HCM 95th-tile Q	3.2	17.3	2.9	2.9	0.1

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	131	443	308	23	25	177
Future Vol, veh/h	131	443	308	23	25	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	482	335	25	27	192

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	360	0	0 1113 347
Stage 1	-	-	- 347 -
Stage 2	-	-	- 766 -
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	1199	-	- 231 696
Stage 1	-	-	- 716 -
Stage 2	-	-	- 459 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1199	-	- 194 696
Mov Cap-2 Maneuver	-	-	- 194 -
Stage 1	-	-	- 716 -
Stage 2	-	-	- 385 -

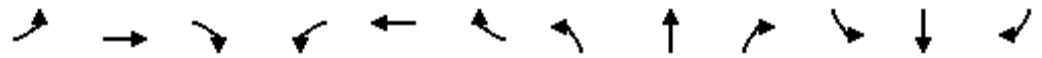
Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1199	-	-	-	527
HCM Lane V/C Ratio	0.119	-	-	-	0.417
HCM Control Delay (s)	8.4	0	-	-	16.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2

El Dorado Senior Resort  
3: Koki Ln & SR 49

Near-Term (2028) Conditions

PM Peak



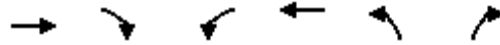
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	386	65	56	282	17	49	1	52	19	1	9
Future Volume (vph)	18	386	65	56	282	17	49	1	52	19	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.98		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (prot)	1770	1863	1583	1770	1845			1776	1550		1715	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (perm)	1770	1863	1583	1770	1845			1776	1550		1715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	420	71	61	307	18	53	1	57	21	1	10
RTOR Reduction (vph)	0	0	30	0	1	0	0	0	50	0	9	0
Lane Group Flow (vph)	20	420	41	61	324	0	0	54	7	0	23	0
Confl. Peds. (#/hr)	3					3	2		1	1		2
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	1.6	25.6	29.6	5.6	29.6			7.5	7.5		3.5	
Effective Green, g (s)	1.6	25.6	29.6	5.6	29.6			7.5	7.5		3.5	
Actuated g/C Ratio	0.03	0.45	0.52	0.10	0.52			0.13	0.13		0.06	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	49	832	817	172	953			232	202		104	
v/s Ratio Prot	0.01	c0.23		c0.03	0.18			c0.03			c0.01	
v/s Ratio Perm			0.03						0.00			
v/c Ratio	0.41	0.50	0.05	0.35	0.34			0.23	0.04		0.22	
Uniform Delay, d1	27.4	11.3	6.9	24.2	8.1			22.3	21.7		25.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	2.0	0.2	0.0	0.5	0.1			0.2	0.0		0.4	
Delay (s)	29.4	11.5	6.9	24.6	8.2			22.5	21.8		26.0	
Level of Service	C	B	A	C	A			C	C		C	
Approach Delay (s)		11.6			10.8			22.1			26.0	
Approach LOS		B			B			C			C	

Intersection Summary		
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.41	B
Actuated Cycle Length (s)	57.3	Sum of lost time (s)
Intersection Capacity Utilization	43.5%	15.1
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		A



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HCM 2010 analysis does not support custom phasing.

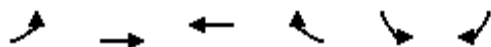


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	417	95	173	375	53	106
Future Volume (vph)	417	95	173	375	53	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1559	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1559	1770	1863	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	453	103	188	408	58	115
RTOR Reduction (vph)	0	52	0	0	0	75
Lane Group Flow (vph)	453	51	188	408	58	40
Confl. Bikes (#/hr)		3				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	22.0	31.6	12.6	38.7	9.6	22.2
Effective Green, g (s)	22.0	31.6	12.6	38.7	9.6	22.2
Actuated g/C Ratio	0.34	0.49	0.20	0.60	0.15	0.35
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	638	767	347	1123	264	547
v/s Ratio Prot	c0.24	0.01	c0.11	0.22	c0.03	0.01
v/s Ratio Perm		0.02				0.01
v/c Ratio	0.71	0.07	0.54	0.36	0.22	0.07
Uniform Delay, d1	18.3	8.6	23.2	6.5	24.0	14.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.0	0.9	0.1	0.2	0.0
Delay (s)	21.4	8.6	24.1	6.6	24.2	14.1
Level of Service	C	A	C	A	C	B
Approach Delay (s)	19.1			12.1	17.5	
Approach LOS	B			B	B	

**Intersection Summary**

HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	64.2	Sum of lost time (s)	17.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.

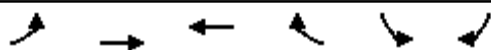


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	216	302	249	376	669	349
Future Volume (vph)	216	302	249	376	669	349
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	235	328	271	409	727	379
RTOR Reduction (vph)	0	0	0	95	0	155
Lane Group Flow (vph)	235	328	271	314	727	224
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	9.1	27.8	14.7	45.0	30.3	39.4
Effective Green, g (s)	9.1	27.8	14.7	45.0	30.3	39.4
Actuated g/C Ratio	0.14	0.42	0.22	0.67	0.45	0.59
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	467	775	409	1066	802	933
v/s Ratio Prot	c0.07	0.18	c0.15	0.13	c0.41	0.03
v/s Ratio Perm				0.06		0.11
v/c Ratio	0.50	0.42	0.66	0.29	0.91	0.24
Uniform Delay, d1	26.8	13.8	23.8	4.4	16.9	6.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	3.1	0.1	13.5	0.0
Delay (s)	27.1	14.0	26.9	4.5	30.4	6.6
Level of Service	C	B	C	A	C	A
Approach Delay (s)		19.4	13.4		22.3	
Approach LOS		B	B		C	

**Intersection Summary**

HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	66.8	Sum of lost time (s)	12.7
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

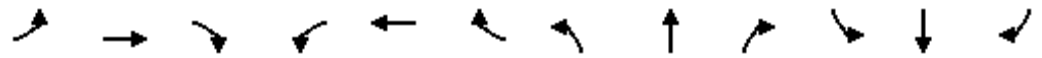


Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	216	302	249	376	669	349		
Future Volume (veh/h)	216	302	249	376	669	349		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	235	328	271	409	727	379		
Adj No. of Lanes	2	1	1	1	1	1		
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	362	747	419	1061	790	872		
Arrive On Green	0.11	0.40	0.22	0.22	0.45	0.45		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	235	328	271	409	727	379		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	3.7	7.2	7.5	6.5	21.8	8.0		
Cycle Q Clear(g_c), s	3.7	7.2	7.5	6.5	21.8	8.0		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	362	747	419	1061	790	872		
V/C Ratio(X)	0.65	0.44	0.65	0.39	0.92	0.43		
Avail Cap(c_a), veh/h	1521	1317	1317	1825	941	1007		
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	24.3	12.3	19.9	4.1	14.7	7.5		
Incr Delay (d2), s/veh	0.7	0.2	0.6	0.1	11.6	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	1.8	3.7	3.9	8.5	13.0	8.6		
LnGrp Delay(d),s/veh	25.0	12.5	20.5	4.2	26.3	7.6		
LnGrp LOS	C	B	C	A	C	A		
Approach Vol, veh/h		563	680		1106			
Approach Delay, s/veh		17.7	10.7		19.9			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		26.8		29.8	10.0	16.8		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		9.2		23.8	5.7	9.5		
Green Ext Time (p_c), s		3.3		1.4	0.4	3.3		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			16.7					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Near-Term (2028) Conditions

PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↖	↗	↖	↗	
Traffic Volume (vph)	104	744	142	27	380	169	109	34	33	300	54	111
Future Volume (vph)	104	744	142	27	380	169	109	34	33	300	54	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3454		1770	1863	1547		1794	1563	1770	1675	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3454		1770	1863	1547		1794	1563	1770	1675	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	809	154	29	413	184	118	37	36	326	59	121
RTOR Reduction (vph)	0	12	0	0	0	104	0	0	30	0	48	0
Lane Group Flow (vph)	113	951	0	29	413	80	0	155	6	326	132	0
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	10.5	32.3		3.8	25.6	25.6		14.1	14.1	21.1	21.1	
Effective Green, g (s)	10.5	32.3		3.8	25.6	25.6		14.1	14.1	21.1	21.1	
Actuated g/C Ratio	0.12	0.38		0.04	0.30	0.30		0.16	0.16	0.25	0.25	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	216	1297		78	554	460		294	256	434	410	
v/s Ratio Prot	c0.06	c0.28		0.02	0.22			c0.09		c0.18	0.08	
v/s Ratio Perm						0.05			0.00			
v/c Ratio	0.52	0.73		0.37	0.75	0.17		0.53	0.02	0.75	0.32	
Uniform Delay, d1	35.4	23.1		39.9	27.3	22.4		32.9	30.2	30.0	26.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	1.9		1.1	4.8	0.1		0.8	0.0	6.4	0.2	
Delay (s)	36.5	25.0		41.0	32.0	22.4		33.7	30.2	36.4	26.7	
Level of Service	D	C		D	C	C		C	C	D	C	
Approach Delay (s)		26.2			29.6			33.0			33.0	
Approach LOS		C			C			C			C	






















Intersection Summary		
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.69	C
Actuated Cycle Length (s)	86.0	Sum of lost time (s)
Intersection Capacity Utilization	67.4%	14.7
Analysis Period (min)	15	ICU Level of Service
		C

c Critical Lane Group

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Near-Term (2028) Conditions

PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	744	142	27	380	169	109	34	33	300	54	111
Future Volume (veh/h)	104	744	142	27	380	169	109	34	33	300	54	111
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	113	809	154	29	413	184	118	37	36	326	59	121
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	147	1177	224	45	632	525	171	54	198	390	120	246
Arrive On Green	0.08	0.40	0.40	0.03	0.34	0.34	0.13	0.13	0.13	0.22	0.22	0.22
Sat Flow, veh/h	1774	2967	565	1774	1863	1548	1366	428	1577	1774	545	1118
Grp Volume(v), veh/h	113	483	480	29	413	184	155	0	36	326	0	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1762	1774	1863	1548	1794	0	1577	1774	0	1664
Q Serve(g_s), s	3.9	14.3	14.3	1.0	11.9	5.6	5.2	0.0	1.3	11.1	0.0	6.0
Cycle Q Clear(g_c), s	3.9	14.3	14.3	1.0	11.9	5.6	5.2	0.0	1.3	11.1	0.0	6.0
Prop In Lane	1.00		0.32	1.00		1.00	0.76		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	147	702	699	45	632	525	225	0	198	390	0	365
V/C Ratio(X)	0.77	0.69	0.69	0.65	0.65	0.35	0.69	0.00	0.18	0.84	0.00	0.49
Avail Cap(c_a), veh/h	562	1402	1396	562	1475	1226	853	0	749	562	0	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	15.8	15.8	30.5	17.7	15.6	26.4	0.0	24.7	23.5	0.0	21.6
Incr Delay (d2), s/veh	3.2	0.5	0.5	5.7	0.4	0.1	1.4	0.0	0.2	5.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	7.1	7.0	0.6	6.2	2.4	2.7	0.0	0.6	6.0	0.0	2.8
LnGrp Delay(d),s/veh	31.6	16.2	16.2	36.2	18.1	15.8	27.8	0.0	24.9	28.6	0.0	21.9
LnGrp LOS	C	B	B	D	B	B	C		C	C		C
Approach Vol, veh/h		1076			626			191			506	
Approach Delay, s/veh		17.9			18.3			27.3			26.2	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	26.0		16.9	4.6	29.6		12.0				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	5.9	13.9		13.1	3.0	16.3		7.2				
Green Ext Time (p_c), s	0.1	7.5		0.8	0.0	7.5		0.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.5									
HCM 2010 LOS			C									

Appendix E:

*Analysis Worksheets for  
Near-Term (2028) plus Proposed Project Conditions*



Intersection	
Intersection Delay, s/veh	71.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	2	333	105	170	326	2	228	1	290	0	0	2
Future Vol, veh/h	2	333	105	170	326	2	228	1	290	0	0	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	396	125	202	388	2	271	1	345	0	0	2
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	67.6	32.3	113.9	12.4
HCM LOS	F	D	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	44%	0%	100%	0%	0%
Vol Thru, %	0%	76%	0%	99%	0%
Vol Right, %	56%	24%	0%	1%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	519	440	170	328	2
LT Vol	228	2	170	0	0
Through Vol	1	333	0	326	0
RT Vol	290	105	0	2	2
Lane Flow Rate	618	524	202	390	2
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.156	0.998	0.456	0.825	0.006
Departure Headway (Hd)	6.733	7.403	8.736	8.213	9.346
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	538	492	415	445	385
Service Time	4.797	5.403	6.436	5.913	7.346
HCM Lane V/C Ratio	1.149	1.065	0.487	0.876	0.005
HCM Control Delay	113.9	67.6	18.6	39.4	12.4
HCM Lane LOS	F	F	C	E	B
HCM 95th-tile Q	21.2	13.4	2.3	7.8	0

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	180	442	376	16	41	118
Future Vol, veh/h	180	442	376	16	41	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	209	514	437	19	48	137

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	456	0	-	0	1380 447
Stage 1	-	-	-	-	447 -
Stage 2	-	-	-	-	933 -
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	1105	-	-	-	159 612
Stage 1	-	-	-	-	644 -
Stage 2	-	-	-	-	383 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1105	-	-	-	117 612
Mov Cap-2 Maneuver	-	-	-	-	117 -
Stage 1	-	-	-	-	644 -
Stage 2	-	-	-	-	282 -

Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	36.2
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1105	-	-	-	293
HCM Lane V/C Ratio	0.189	-	-	-	0.631
HCM Control Delay (s)	9	0	-	-	36.2
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	4

El Dorado Senior Resort  
3: Koki Ln & SR 49

Near-Term (2028) plus Project Conditions

AM Peak

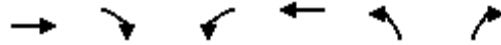


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	265	235	309	251	8	136	4	197	13	4	10
Future Volume (vph)	5	265	235	309	251	8	136	4	197	13	4	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1863	1544	1770	1853			1776	1583		1710	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1863	1544	1770	1853			1776	1583		1710	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	7	353	313	412	335	11	181	5	263	17	5	13
RTOR Reduction (vph)	0	0	111	0	0	0	0	0	220	0	12	0
Lane Group Flow (vph)	7	353	202	412	346	0	0	186	43	0	23	0
Confl. Peds. (#/hr)			2	2			4					4
Confl. Bikes (#/hr)			1			1						
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	3.3	20.2	46.8	29.9	46.8			13.8	13.8		5.6	
Effective Green, g (s)	3.3	20.2	46.8	29.9	46.8			13.8	13.8		5.6	
Actuated g/C Ratio	0.04	0.24	0.55	0.35	0.55			0.16	0.16		0.07	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	69	444	854	625	1025			289	258		113	
v/s Ratio Prot	0.00	c0.19		c0.23	0.19			c0.10			c0.01	
v/s Ratio Perm			0.13						0.03			
v/c Ratio	0.10	0.80	0.24	0.66	0.34			0.64	0.17		0.20	
Uniform Delay, d1	39.2	30.3	9.7	23.1	10.4			33.1	30.5		37.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.2	8.9	0.1	1.9	0.1			3.7	0.1		0.3	
Delay (s)	39.5	39.1	9.8	25.0	10.5			36.8	30.6		37.7	
Level of Service	D	D	A	C	B			D	C		D	
Approach Delay (s)		25.5			18.3			33.1			37.7	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	84.6	Sum of lost time (s)	15.1
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 analysis does not support custom phasing.

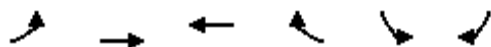


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	411	56	56	500	96	169
Future Volume (vph)	411	56	56	500	96	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1562	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1562	1770	1863	1770	1583
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	462	63	63	562	108	190
RTOR Reduction (vph)	0	31	0	0	0	129
Lane Group Flow (vph)	462	32	63	562	108	61
Confl. Bikes (#/hr)		1				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	20.0	30.3	8.5	32.6	10.3	18.8
Effective Green, g (s)	20.0	30.3	8.5	32.6	10.3	18.8
Actuated g/C Ratio	0.34	0.52	0.14	0.55	0.18	0.32
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	633	804	255	1032	310	506
v/s Ratio Prot	c0.25	0.01	0.04	c0.30	c0.06	0.02
v/s Ratio Perm		0.01				0.02
v/c Ratio	0.73	0.04	0.25	0.54	0.35	0.12
Uniform Delay, d1	17.0	7.1	22.3	8.4	21.3	14.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.6	0.0	0.2	0.3	0.2	0.0
Delay (s)	20.6	7.1	22.5	8.7	21.6	14.2
Level of Service	C	A	C	A	C	B
Approach Delay (s)	19.0			10.1	16.9	
Approach LOS	B			B	B	

**Intersection Summary**

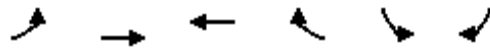
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	58.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖ ↗	↑	↑	↑	↘ ↙	↘ ↙
Traffic Volume (vph)	391	245	377	577	218	239
Future Volume (vph)	391	245	377	577	218	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1567
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1567
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	425	266	410	627	237	260
RTOR Reduction (vph)	0	0	0	42	0	142
Lane Group Flow (vph)	425	266	410	585	237	118
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	13.2	37.0	19.8	33.3	13.5	26.7
Effective Green, g (s)	13.2	37.0	19.8	33.3	13.5	26.7
Actuated g/C Ratio	0.22	0.62	0.33	0.56	0.23	0.45
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	765	1164	623	890	403	706
v/s Ratio Prot	c0.12	0.14	c0.22	c0.15	0.13	0.04
v/s Ratio Perm				0.22		0.04
v/c Ratio	0.56	0.23	0.66	0.66	0.59	0.17
Uniform Delay, d1	20.4	4.9	16.8	9.0	20.4	9.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.0	1.9	1.3	1.4	0.0
Delay (s)	20.9	4.9	18.7	10.3	21.8	9.7
Level of Service	C	A	B	B	C	A
Approach Delay (s)		14.7	13.7		15.5	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	59.2	Sum of lost time (s)	12.7
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



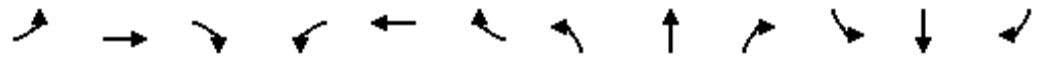
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	391	245	377	577	218	239		
Future Volume (veh/h)	391	245	377	577	218	239		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	425	266	410	627	237	260		
Adj No. of Lanes	2	1	1	1	1	1		
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	588	1206	741	918	323	558		
Arrive On Green	0.17	0.65	0.40	0.40	0.18	0.18		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	425	266	410	627	237	260		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	5.9	3.0	8.6	14.0	6.4	6.5		
Cycle Q Clear(g_c), s	5.9	3.0	8.6	14.0	6.4	6.5		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	588	1206	741	918	323	558		
V/C Ratio(X)	0.72	0.22	0.55	0.68	0.73	0.47		
Avail Cap(c_a), veh/h	1691	1465	1465	1533	1046	1204		
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	20.0	3.7	11.8	7.4	19.7	12.8		
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.3	1.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.9	1.5	4.5	12.5	3.2	6.0		
LnGrp Delay(d),s/veh	20.6	3.7	12.1	7.8	20.9	13.0		
LnGrp LOS	C	A	B	A	C	B		
Approach Vol, veh/h		691	1037		497			
Approach Delay, s/veh		14.1	9.5		16.7			
Approach LOS		B	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		37.0		13.8	12.7	24.3		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		5.0		8.5	7.9	16.0		
Green Ext Time (p_c), s		4.4		0.8	0.8	4.2		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			12.5					
HCM 2010 LOS			B					



El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Near-Term (2028) plus Project Conditions






















AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↖	↗	↖	↗	
Traffic Volume (vph)	120	307	50	11	729	251	98	31	8	105	14	102
Future Volume (vph)	120	307	50	11	729	251	98	31	8	105	14	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3465		1770	1863	1548		1795	1583	1770	1617	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3465		1770	1863	1548		1795	1583	1770	1617	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	334	54	12	792	273	107	34	9	114	15	111
RTOR Reduction (vph)	0	6	0	0	0	56	0	0	8	0	99	0
Lane Group Flow (vph)	130	382	0	12	792	217	0	141	1	114	27	0
Confl. Peds. (#/hr)	1					1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	12.1	64.7		1.1	53.7	53.7		14.4	14.4	11.2	11.2	
Effective Green, g (s)	12.1	64.7		1.1	53.7	53.7		14.4	14.4	11.2	11.2	
Actuated g/C Ratio	0.11	0.61		0.01	0.51	0.51		0.14	0.14	0.11	0.11	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	201	2112		18	942	783		243	214	186	170	
v/s Ratio Prot	c0.07	0.11		0.01	c0.43			c0.08		c0.06	0.02	
v/s Ratio Perm						0.14			0.00			
v/c Ratio	0.65	0.18		0.67	0.84	0.28		0.58	0.01	0.61	0.16	
Uniform Delay, d1	45.0	9.1		52.3	22.5	15.0		43.0	39.7	45.4	43.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.3	0.0		54.1	6.6	0.1		2.3	0.0	4.2	0.2	
Delay (s)	50.2	9.1		106.4	29.1	15.1		45.3	39.7	49.5	43.3	
Level of Service	D	A		F	C	B		D	D	D	D	
Approach Delay (s)		19.4			26.4			44.9			46.3	
Approach LOS		B			C			D			D	

Intersection Summary

HCM 2000 Control Delay	28.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	106.1	Sum of lost time (s)	14.7
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	307	50	11	729	251	98	31	8	105	14	102
Future Volume (veh/h)	120	307	50	11	729	251	98	31	8	105	14	102
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	130	334	54	12	792	273	107	34	9	114	15	111
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	166	1747	280	21	912	775	143	45	166	194	21	155
Arrive On Green	0.09	0.57	0.57	0.01	0.49	0.49	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1774	3056	489	1774	1863	1582	1362	433	1583	1774	192	1420
Grp Volume(v), veh/h	130	192	196	12	792	273	141	0	9	114	0	126
Grp Sat Flow(s),veh/h/ln	1774	1770	1776	1774	1863	1582	1795	0	1583	1774	0	1612
Q Serve(g_s), s	5.2	3.8	3.9	0.5	27.4	7.7	5.5	0.0	0.4	4.4	0.0	5.5
Cycle Q Clear(g_c), s	5.2	3.8	3.9	0.5	27.4	7.7	5.5	0.0	0.4	4.4	0.0	5.5
Prop In Lane	1.00		0.28	1.00		1.00	0.76		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	166	1011	1015	21	912	775	189	0	166	194	0	176
V/C Ratio(X)	0.78	0.19	0.19	0.57	0.87	0.35	0.75	0.00	0.05	0.59	0.00	0.72
Avail Cap(c_a), veh/h	489	1219	1223	489	1283	1089	741	0	654	489	0	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.2	7.5	7.5	35.7	16.4	11.4	31.6	0.0	29.2	30.8	0.0	31.3
Incr Delay (d2), s/veh	3.0	0.0	0.0	8.8	3.6	0.1	2.2	0.0	0.0	1.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.8	1.9	0.3	14.8	3.4	2.9	0.0	0.2	2.2	0.0	2.5
LnGrp Delay(d),s/veh	35.2	7.5	7.5	44.4	20.1	11.5	33.8	0.0	29.3	31.9	0.0	33.3
LnGrp LOS	D	A	A	D	C	B	C		C	C		C
Approach Vol, veh/h		518			1077			150			240	
Approach Delay, s/veh		14.5			18.2			33.5			32.6	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	40.2		10.9	3.9	46.1		11.7				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	7.2	29.4		7.5	2.5	5.9		7.5				
Green Ext Time (p_c), s	0.1	6.1		0.5	0.0	7.0		0.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.1									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	20	1	1	317	529	19
Future Vol, veh/h	20	1	1	317	529	19
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	22	1	1	345	575	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	932	585	596	0	-	0
Stage 1	585	-	-	-	-	-
Stage 2	347	-	-	-	-	-
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	296	511	980	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	296	511	980	-	-	-
Mov Cap-2 Maneuver	296	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	980	-	302	-	-
HCM Lane V/C Ratio	0.001	-	0.076	-	-
HCM Control Delay (s)	8.7	0	17.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	41.9
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	8	385	217	243	259	2	97	2	178	4	2	8
Future Vol, veh/h	8	385	217	243	259	2	97	2	178	4	2	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	418	236	264	282	2	105	2	193	4	2	9
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	74.6	16.6	17.3	11.2
HCM LOS	F	C	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	35%	1%	100%	0%	29%
Vol Thru, %	1%	63%	0%	99%	14%
Vol Right, %	64%	36%	0%	1%	57%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	277	610	243	261	14
LT Vol	97	8	243	0	4
Through Vol	2	385	0	259	2
RT Vol	178	217	0	2	8
Lane Flow Rate	301	663	264	284	15
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.541	1.054	0.512	0.51	0.032
Departure Headway (Hd)	6.683	5.721	7.18	6.663	7.938
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	542	637	504	545	454
Service Time	4.683	3.773	4.88	4.363	5.938
HCM Lane V/C Ratio	0.555	1.041	0.524	0.521	0.033
HCM Control Delay	17.3	74.6	17.2	16.1	11.2
HCM Lane LOS	C	F	C	C	B
HCM 95th-tile Q	3.2	17.9	2.9	2.9	0.1

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	131	450	315	23	25	177
Future Vol, veh/h	131	450	315	23	25	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	489	342	25	27	192

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	367	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1192	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1192	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

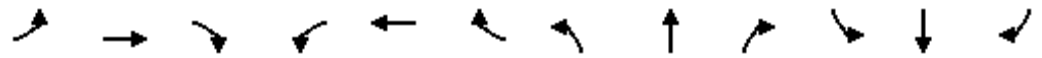
Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1192	-	-	-	519
HCM Lane V/C Ratio	0.119	-	-	-	0.423
HCM Control Delay (s)	8.4	0	-	-	16.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.1

El Dorado Senior Resort  
3: Koki Ln & SR 49

Near-Term (2028) plus Project Conditions

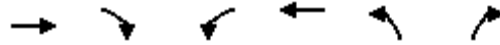
PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	386	72	78	282	17	56	1	75	19	1	9
Future Volume (vph)	18	386	72	78	282	17	56	1	75	19	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.98		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (prot)	1770	1863	1583	1770	1845			1775	1550		1715	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (perm)	1770	1863	1583	1770	1845			1775	1550		1715	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	420	78	85	307	18	61	1	82	21	1	10
RTOR Reduction (vph)	0	0	29	0	1	0	0	0	72	0	9	0
Lane Group Flow (vph)	20	420	49	85	324	0	0	62	10	0	23	0
Confl. Peds. (#/hr)	3					3	2		1	1		2
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	1.8	24.9	32.3	9.2	32.3			7.5	7.5		3.5	
Effective Green, g (s)	1.8	24.9	32.3	9.2	32.3			7.5	7.5		3.5	
Actuated g/C Ratio	0.03	0.41	0.54	0.15	0.54			0.12	0.12		0.06	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	52	770	849	270	989			221	193		99	
v/s Ratio Prot	0.01	c0.23		c0.05	c0.18			c0.03			c0.01	
v/s Ratio Perm			0.03						0.01			
v/c Ratio	0.38	0.55	0.06	0.31	0.33			0.28	0.05		0.23	
Uniform Delay, d1	28.7	13.4	6.7	22.7	7.8			23.9	23.2		27.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.7	0.4	0.0	0.2	0.1			0.3	0.0		0.4	
Delay (s)	30.4	13.8	6.7	22.9	7.9			24.2	23.3		27.5	
Level of Service	C	B	A	C	A			C	C		C	
Approach Delay (s)		13.4			11.0			23.6			27.5	
Approach LOS		B			B			C			C	

Intersection Summary		
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.43	B
Actuated Cycle Length (s)	60.2	Sum of lost time (s)
Intersection Capacity Utilization	44.5%	15.1
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		A

HCM 2010 analysis does not support custom phasing.

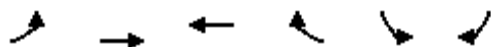


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	437	98	173	395	55	106
Future Volume (vph)	437	98	173	395	55	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1559	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1559	1770	1863	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	475	107	188	429	60	115
RTOR Reduction (vph)	0	54	0	0	0	76
Lane Group Flow (vph)	475	54	188	429	60	39
Confl. Bikes (#/hr)		3				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	23.2	32.9	12.9	40.2	9.7	22.6
Effective Green, g (s)	23.2	32.9	12.9	40.2	9.7	22.6
Actuated g/C Ratio	0.35	0.50	0.20	0.61	0.15	0.34
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	656	779	347	1138	260	543
v/s Ratio Prot	c0.26	0.01	c0.11	0.23	c0.03	0.01
v/s Ratio Perm		0.02				0.01
v/c Ratio	0.72	0.07	0.54	0.38	0.23	0.07
Uniform Delay, d1	18.5	8.5	23.8	6.5	24.8	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.0	0.9	0.1	0.2	0.0
Delay (s)	21.9	8.5	24.7	6.5	24.9	14.6
Level of Service	C	A	C	A	C	B
Approach Delay (s)	19.4			12.1	18.1	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	65.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



HCM 2010 methodology does not support exclusive ped or hold phases.

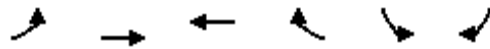


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	223	315	262	376	669	356
Future Volume (vph)	223	315	262	376	669	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	242	342	285	409	727	387
RTOR Reduction (vph)	0	0	0	91	0	160
Lane Group Flow (vph)	242	342	285	318	727	227
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	9.2	28.4	15.2	45.5	30.3	39.5
Effective Green, g (s)	9.2	28.4	15.2	45.5	30.3	39.5
Actuated g/C Ratio	0.14	0.42	0.23	0.68	0.45	0.59
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	468	785	420	1068	795	927
v/s Ratio Prot	c0.07	0.18	c0.15	0.13	c0.41	0.03
v/s Ratio Perm				0.07		0.11
v/c Ratio	0.52	0.44	0.68	0.30	0.91	0.24
Uniform Delay, d1	27.0	13.8	23.9	4.5	17.3	6.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	3.4	0.1	14.7	0.1
Delay (s)	27.4	14.0	27.3	4.5	32.0	6.8
Level of Service	C	B	C	A	C	A
Approach Delay (s)		19.5	13.9		23.3	
Approach LOS		B	B		C	

**Intersection Summary**

HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	67.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	223	315	262	376	669	356		
Future Volume (veh/h)	223	315	262	376	669	356		
Number	5	2	6	16	7	14		
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		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	242	342	285	409	727	387		
Adj No. of Lanes	2	1	1	1	1	1		
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	368	758	431	1069	787	871		
Arrive On Green	0.11	0.41	0.23	0.23	0.44	0.44		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	242	342	285	409	727	387		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	3.9	7.8	8.1	6.6	22.5	8.5		
Cycle Q Clear(g_c), s	3.9	7.8	8.1	6.6	22.5	8.5		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	368	758	431	1069	787	871		
V/C Ratio(X)	0.66	0.45	0.66	0.38	0.92	0.44		
Avail Cap(c_a), veh/h	1478	1280	1280	1790	914	985		
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	25.0	12.5	20.3	4.1	15.3	7.8		
Incr Delay (d2), s/veh	0.8	0.2	0.7	0.1	12.6	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	1.9	4.0	4.2	8.8	13.7	9.1		
LnGrp Delay(d),s/veh	25.7	12.7	20.9	4.2	27.9	7.9		
LnGrp LOS	C	B	C	A	C	A		
Approach Vol, veh/h		584	694		1114			
Approach Delay, s/veh		18.1	11.1		21.0			
Approach LOS		B	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		27.8		30.4	10.2	17.6		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		9.8		24.5	5.9	10.1		
Green Ext Time (p_c), s		3.4		1.3	0.4	3.4		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			17.4					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Near-Term (2028) plus Project Conditions






















PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	750	142	27	386	169	109	34	33	300	54	118
Future Volume (vph)	111	750	142	27	386	169	109	34	33	300	54	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3455		1770	1863	1547		1794	1563	1770	1671	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3455		1770	1863	1547		1794	1563	1770	1671	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	121	815	154	29	420	184	118	37	36	326	59	128
RTOR Reduction (vph)	0	11	0	0	0	101	0	0	30	0	52	0
Lane Group Flow (vph)	121	958	0	29	420	83	0	155	6	326	135	0
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2			8			
Actuated Green, G (s)	11.0	33.3		3.9	26.2	26.2		14.1	14.1	21.1	21.1	
Effective Green, g (s)	11.0	33.3		3.9	26.2	26.2		14.1	14.1	21.1	21.1	
Actuated g/C Ratio	0.13	0.38		0.04	0.30	0.30		0.16	0.16	0.24	0.24	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6		4.1	4.1	3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	223	1320		79	560	465		290	253	428	404	
v/s Ratio Prot	c0.07	c0.28		0.02	0.23			c0.09		c0.18	0.08	
v/s Ratio Perm						0.05			0.00			
v/c Ratio	0.54	0.73		0.37	0.75	0.18		0.53	0.02	0.76	0.34	
Uniform Delay, d1	35.7	23.0		40.4	27.5	22.5		33.5	30.7	30.7	27.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.4	1.7		1.1	5.0	0.1		1.0	0.0	7.1	0.2	
Delay (s)	37.1	24.7		41.5	32.5	22.6		34.4	30.7	37.7	27.4	
Level of Service	D	C		D	C	C		C	C	D	C	
Approach Delay (s)		26.1			30.0			33.7			34.0	
Approach LOS		C			C			C			C	

Intersection Summary		
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.70	C
Actuated Cycle Length (s)	87.1	Sum of lost time (s)
Intersection Capacity Utilization	67.5%	14.7
Analysis Period (min)	15	ICU Level of Service
		C

c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	750	142	27	386	169	109	34	33	300	54	118
Future Volume (veh/h)	111	750	142	27	386	169	109	34	33	300	54	118
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	121	815	154	29	420	184	118	37	36	326	59	128
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	1	1	0
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	156	1201	227	45	636	528	168	53	194	389	115	249
Arrive On Green	0.09	0.40	0.40	0.03	0.34	0.34	0.12	0.12	0.12	0.22	0.22	0.22
Sat Flow, veh/h	1774	2971	561	1774	1863	1548	1366	428	1577	1774	524	1136
Grp Volume(v), veh/h	121	485	484	29	420	184	155	0	36	326	0	187
Grp Sat Flow(s),veh/h/ln	1774	1770	1763	1774	1863	1548	1794	0	1577	1774	0	1660
Q Serve(g_s), s	4.3	14.5	14.5	1.0	12.4	5.7	5.3	0.0	1.3	11.3	0.0	6.4
Cycle Q Clear(g_c), s	4.3	14.5	14.5	1.0	12.4	5.7	5.3	0.0	1.3	11.3	0.0	6.4
Prop In Lane	1.00		0.32	1.00		1.00	0.76		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	156	716	713	45	636	528	221	0	194	389	0	364
V/C Ratio(X)	0.77	0.68	0.68	0.65	0.66	0.35	0.70	0.00	0.19	0.84	0.00	0.51
Avail Cap(c_a), veh/h	551	1374	1368	551	1446	1201	836	0	734	551	0	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.7	15.7	15.7	31.1	18.0	15.9	27.1	0.0	25.3	24.1	0.0	22.1
Incr Delay (d2), s/veh	3.1	0.4	0.4	5.8	0.4	0.1	1.5	0.0	0.2	5.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	7.1	7.1	0.6	6.4	2.5	2.7	0.0	0.6	6.1	0.0	3.0
LnGrp Delay(d),s/veh	31.8	16.2	16.2	36.9	18.5	16.0	28.6	0.0	25.5	29.6	0.0	22.6
LnGrp LOS	C	B	B	D	B	B	C		C	C		C
Approach Vol, veh/h		1090			633			191			513	
Approach Delay, s/veh		17.9			18.6			28.0			27.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	26.6		17.1	4.6	30.6		12.0				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	6.3	14.4		13.3	3.0	16.5		7.3				
Green Ext Time (p_c), s	0.1	7.6		0.8	0.0	7.5		0.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.8									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	30	1	1	102	122	29
Future Vol, veh/h	30	1	1	102	122	29
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	33	1	1	111	133	32

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	261	148	164	0	0
Stage 1	148	-	-	-	-
Stage 2	113	-	-	-	-
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	728	899	1414	-	-
Stage 1	880	-	-	-	-
Stage 2	912	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	727	899	1414	-	-
Mov Cap-2 Maneuver	727	-	-	-	-
Stage 1	880	-	-	-	-
Stage 2	911	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1414	-	732	-	-
HCM Lane V/C Ratio	0.001	-	0.046	-	-
HCM Control Delay (s)	7.5	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Appendix F:

*Analysis Worksheets for  
Cumulative (2035) Conditions*

Intersection	
Intersection Delay, s/veh	96.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	5	379	114	172	371	3	245	1	288	1	0	5
Future Vol, veh/h	5	379	114	172	371	3	245	1	288	1	0	5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	451	136	205	442	4	292	1	343	1	0	6
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	112.9	47.6	132.1	13.4
HCM LOS	F	E	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	46%	1%	100%	0%	17%
Vol Thru, %	0%	76%	0%	99%	0%
Vol Right, %	54%	23%	0%	1%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	534	498	172	374	6
LT Vol	245	5	172	0	1
Through Vol	1	379	0	371	0
RT Vol	288	114	0	3	5
Lane Flow Rate	636	593	205	445	7
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.201	1.142	0.464	0.945	0.018
Departure Headway (Hd)	7.121	7.64	9.092	8.566	10.217
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	515	480	399	427	352
Service Time	5.121	5.64	6.792	6.266	8.217
HCM Lane V/C Ratio	1.235	1.235	0.514	1.042	0.02
HCM Control Delay	132.1	112.9	19.4	60.5	13.4
HCM Lane LOS	F	F	C	F	B
HCM 95th-tile Q	22.7	19	2.4	10.8	0.1



Intersection						
Int Delay, s/veh	6.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	182	476	417	18	41	120
Future Vol, veh/h	182	476	417	18	41	120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	529	463	20	46	133

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	483	0	-	0	1406 473
Stage 1	-	-	-	-	473 -
Stage 2	-	-	-	-	933 -
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	1080	-	-	-	153 591
Stage 1	-	-	-	-	627 -
Stage 2	-	-	-	-	383 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1080	-	-	-	112 591
Mov Cap-2 Maneuver	-	-	-	-	112 -
Stage 1	-	-	-	-	627 -
Stage 2	-	-	-	-	282 -

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	37.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1080	-	-	-	283
HCM Lane V/C Ratio	0.187	-	-	-	0.632
HCM Control Delay (s)	9.1	0	-	-	37.3
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	4

El Dorado Senior Resort  
3: Koki Ln & SR 49

Cumulative (2035) Conditions

AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	283	248	297	274	12	154	5	201	15	5	12
Future Volume (vph)	9	283	248	297	274	12	154	5	201	15	5	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1863	1544	1770	1849			1777	1583		1710	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1863	1544	1770	1849			1777	1583		1710	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	11	354	310	371	342	15	192	6	251	19	6	15
RTOR Reduction (vph)	0	0	110	0	1	0	0	0	209	0	14	0
Lane Group Flow (vph)	11	354	200	371	357	0	0	199	42	0	26	0
Confl. Peds. (#/hr)			2	2			4					4
Confl. Bikes (#/hr)			1			1						
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	3.3	20.4	47.0	29.9	47.0			14.4	14.4		5.7	
Effective Green, g (s)	3.3	20.4	47.0	29.9	47.0			14.4	14.4		5.7	
Actuated g/C Ratio	0.04	0.24	0.55	0.35	0.55			0.17	0.17		0.07	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	68	444	848	618	1016			299	266		114	
v/s Ratio Prot	0.01	c0.19		c0.21	0.19			c0.11			c0.02	
v/s Ratio Perm			0.13						0.03			
v/c Ratio	0.16	0.80	0.24	0.60	0.35			0.67	0.16		0.23	
Uniform Delay, d1	39.8	30.6	10.0	22.9	10.7			33.3	30.4		37.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.4	9.0	0.1	1.1	0.1			4.3	0.1		0.4	
Delay (s)	40.2	39.6	10.0	24.0	10.8			37.6	30.5		38.2	
Level of Service	D	D	B	C	B			D	C		D	
Approach Delay (s)		26.0			17.5			33.6			38.2	
Approach LOS		C			B			C			D	

Intersection Summary

HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	85.5	Sum of lost time (s)	15.1
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 analysis does not support custom phasing.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↗	↖
Traffic Volume (vph)	426	66	68	499	111	190
Future Volume (vph)	426	66	68	499	111	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1562	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1562	1770	1863	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	473	73	76	554	123	211
RTOR Reduction (vph)	0	35	0	0	0	143
Lane Group Flow (vph)	473	38	76	554	123	68
Confl. Bikes (#/hr)		1				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	21.3	32.1	9.0	34.4	10.8	19.8
Effective Green, g (s)	21.3	32.1	9.0	34.4	10.8	19.8
Actuated g/C Ratio	0.35	0.53	0.15	0.56	0.18	0.32
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	649	820	260	1048	312	512
v/s Ratio Prot	c0.25	0.01	0.04	c0.30	c0.07	0.02
v/s Ratio Perm		0.02				0.02
v/c Ratio	0.73	0.05	0.29	0.53	0.39	0.13
Uniform Delay, d1	17.4	7.1	23.2	8.3	22.3	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.5	0.0	0.2	0.2	0.3	0.0
Delay (s)	20.9	7.1	23.4	8.5	22.6	14.6
Level of Service	C	A	C	A	C	B
Approach Delay (s)	19.0			10.3	17.6	
Approach LOS	B			B	B	

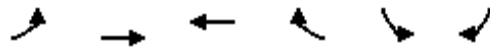
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	17.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	370	260	400	390	150	260
Future Volume (vph)	370	260	400	390	150	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	283	435	424	163	283
RTOR Reduction (vph)	0	0	0	50	0	136
Lane Group Flow (vph)	402	283	435	374	163	147
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	12.1	35.1	19.0	30.1	11.1	23.2
Effective Green, g (s)	12.1	35.1	19.0	30.1	11.1	23.2
Actuated g/C Ratio	0.22	0.64	0.35	0.55	0.20	0.42
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	756	1191	644	867	357	662
v/s Ratio Prot	c0.12	0.15	c0.23	0.09	c0.09	0.05
v/s Ratio Perm				0.15		0.04
v/c Ratio	0.53	0.24	0.68	0.43	0.46	0.22
Uniform Delay, d1	18.9	4.2	15.3	7.3	19.2	10.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	2.2	0.1	0.3	0.1
Delay (s)	19.3	4.2	17.5	7.5	19.6	10.2
Level of Service	B	A	B	A	B	B
Approach Delay (s)		13.1	12.6		13.6	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	12.7
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	370	260	400	390	150	260		
Future Volume (veh/h)	370	260	400	390	150	260		
Number	5	2	6	16	7	14		
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		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	402	283	435	424	163	283		
Adj No. of Lanes	2	1	1	1	1	1		
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	589	1120	630	850	353	586		
Arrive On Green	0.17	0.60	0.34	0.34	0.20	0.20		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	402	283	435	424	163	283		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	4.8	3.1	8.8	7.4	3.5	6.0		
Cycle Q Clear(g_c), s	4.8	3.1	8.8	7.4	3.5	6.0		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	589	1120	630	850	353	586		
V/C Ratio(X)	0.68	0.25	0.69	0.50	0.46	0.48		
Avail Cap(c_a), veh/h	1979	1714	1714	1772	1224	1364		
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	16.9	4.1	12.4	6.4	15.4	10.5		
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.2	0.4	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	2.3	1.6	4.6	7.5	1.8	5.6		
LnGrp Delay(d),s/veh	17.4	4.1	12.9	6.5	15.7	10.7		
LnGrp LOS	B	A	B	A	B	B		
Approach Vol, veh/h		685	859		446			
Approach Delay, s/veh		11.9	9.8		12.6			
Approach LOS		B	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		30.2		13.2	11.4	18.8		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		5.1		8.0	6.8	10.8		
Green Ext Time (p_c), s		4.0		0.7	0.7	3.9		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			11.1					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Cumulative (2035) Conditions

AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖↗	↖	↖		↖↗	↖	
Traffic Volume (vph)	150	270	69	32	640	630	111	140	14	450	100	100
Future Volume (vph)	150	270	69	32	640	630	111	140	14	450	100	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	0.88	1.00	1.00		0.97	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3431		1770	1863	2724	1770	1838		3433	1723	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3431		1770	1863	2724	1770	1838		3433	1723	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	293	75	35	696	685	121	152	15	489	109	109
RTOR Reduction (vph)	0	13	0	0	0	182	0	3	0	0	26	0
Lane Group Flow (vph)	163	355	0	35	696	503	121	164	0	489	192	0
Confl. Peds. (#/hr)	1					1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2						
Actuated Green, G (s)	14.5	61.1		4.6	51.2	51.2	16.0	16.0		19.6	19.6	
Effective Green, g (s)	14.5	61.1		4.6	51.2	51.2	16.0	16.0		19.6	19.6	
Actuated g/C Ratio	0.12	0.53		0.04	0.44	0.44	0.14	0.14		0.17	0.17	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	221	1807		70	822	1202	244	253		580	291	
v/s Ratio Prot	c0.09	0.10		0.02	c0.37		0.07	c0.09		c0.14	0.11	
v/s Ratio Perm						0.18						
v/c Ratio	0.74	0.20		0.50	0.85	0.42	0.50	0.65		0.84	0.66	
Uniform Delay, d1	48.9	14.5		54.6	28.9	22.2	46.3	47.3		46.7	45.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.5	0.0		2.0	7.7	0.1	0.6	4.3		10.4	4.3	
Delay (s)	59.4	14.5		56.6	36.6	22.3	46.8	51.6		57.1	49.4	
Level of Service	E	B		E	D	C	D	D		E	D	
Approach Delay (s)		28.3			30.2			49.6			54.7	
Approach LOS		C			C			D			D	

Intersection Summary

HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	116.0	Sum of lost time (s)	14.7
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Cumulative (2035) Conditions

AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	270	69	32	640	630	111	140	14	450	100	100
Future Volume (veh/h)	150	270	69	32	640	630	111	140	14	450	100	100
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	163	293	75	35	696	685	121	152	15	489	109	109
Adj No. of Lanes	1	2	0	1	1	2	1	1	0	2	1	0
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	199	1455	366	46	807	1206	210	198	20	592	147	147
Arrive On Green	0.11	0.52	0.52	0.03	0.43	0.43	0.12	0.12	0.12	0.17	0.17	0.17
Sat Flow, veh/h	1774	2802	705	1774	1863	2783	1774	1669	165	3442	856	856
Grp Volume(v), veh/h	163	183	185	35	696	685	121	0	167	489	0	218
Grp Sat Flow(s),veh/h/ln	1774	1770	1738	1774	1863	1392	1774	0	1834	1721	0	1712
Q Serve(g_s), s	8.0	5.0	5.1	1.8	30.2	16.5	5.8	0.0	7.9	12.3	0.0	10.8
Cycle Q Clear(g_c), s	8.0	5.0	5.1	1.8	30.2	16.5	5.8	0.0	7.9	12.3	0.0	10.8
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.09	1.00		0.50
Lane Grp Cap(c), veh/h	199	919	902	46	807	1206	210	0	217	592	0	294
V/C Ratio(X)	0.82	0.20	0.20	0.76	0.86	0.57	0.58	0.00	0.77	0.83	0.00	0.74
Avail Cap(c_a), veh/h	397	989	971	397	1041	1556	595	0	615	769	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.8	11.5	11.6	43.3	22.9	19.1	37.3	0.0	38.2	35.8	0.0	35.2
Incr Delay (d2), s/veh	3.2	0.0	0.0	9.1	5.0	0.2	0.9	0.0	2.2	4.5	0.0	3.5
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	4.1	2.4	2.5	1.0	16.6	6.3	2.9	0.0	4.1	6.2	0.0	5.4
LnGrp Delay(d),s/veh	42.1	11.6	11.6	52.4	28.0	19.2	38.2	0.0	40.4	40.3	0.0	38.7
LnGrp LOS	D	B	B	D	C	B	D		D	D		D
Approach Vol, veh/h		531			1416			288			707	
Approach Delay, s/veh		20.9			24.3			39.5			39.8	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	43.4		18.4	5.3	51.1		14.7				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	10.0	32.2		14.3	3.8	7.1		9.9				
Green Ext Time (p_c), s	0.1	6.5		1.1	0.0	7.9		0.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			28.9									
HCM 2010 LOS			C									

Intersection	
Intersection Delay, s/veh	64.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	12	416	238	240	298	2	109	2	181	4	2	12
Future Vol, veh/h	12	416	238	240	298	2	109	2	181	4	2	12
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	452	259	261	324	2	118	2	197	4	2	13
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	122	18.7	19	11.7
HCM LOS	F	C	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	2%	100%	0%	22%
Vol Thru, %	1%	62%	0%	99%	11%
Vol Right, %	62%	36%	0%	1%	67%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	292	666	240	300	18
LT Vol	109	12	240	0	4
Through Vol	2	416	0	298	2
RT Vol	181	238	0	2	12
Lane Flow Rate	317	724	261	326	20
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.576	1.189	0.517	0.6	0.042
Departure Headway (Hd)	6.984	5.913	7.437	6.919	8.329
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	521	615	488	525	433
Service Time	4.984	3.929	5.137	4.619	6.329
HCM Lane V/C Ratio	0.608	1.177	0.535	0.621	0.046
HCM Control Delay	19	122	17.8	19.5	11.7
HCM Lane LOS	C	F	C	C	B
HCM 95th-tile Q	3.6	25.1	2.9	3.9	0.1

**Intersection**

Int Delay, s/veh 4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	134	477	337	24	31	190
Future Vol, veh/h	134	477	337	24	31	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	146	518	366	26	34	207

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	392	0	0 1189 379
Stage 1	-	-	- 379 -
Stage 2	-	-	- 810 -
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	1167	-	- 208 668
Stage 1	-	-	- 692 -
Stage 2	-	-	- 438 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1167	-	- 171 668
Mov Cap-2 Maneuver	-	-	- 171 -
Stage 1	-	-	- 692 -
Stage 2	-	-	- 361 -

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	20.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1167	-	-	-	475
HCM Lane V/C Ratio	0.125	-	-	-	0.506
HCM Control Delay (s)	8.5	0	-	-	20.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.8

El Dorado Senior Resort  
3: Koki Ln & SR 49

Cumulative (2035) Conditions

PM Peak

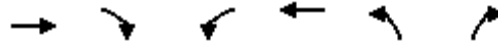


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	396	91	75	290	21	66	1	63	24	2	14
Future Volume (vph)	22	396	91	75	290	21	66	1	63	24	2	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.98		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (prot)	1770	1863	1583	1770	1841			1775	1550		1709	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (perm)	1770	1863	1583	1770	1841			1775	1550		1709	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	430	99	82	315	23	72	1	68	26	2	15
RTOR Reduction (vph)	0	0	30	0	1	0	0	0	60	0	14	0
Lane Group Flow (vph)	24	430	69	82	337	0	0	73	8	0	29	0
Confl. Peds. (#/hr)	3					3	2		1	1		2
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	1.7	26.2	33.4	8.9	33.4			7.6	7.6		5.1	
Effective Green, g (s)	1.7	26.2	33.4	8.9	33.4			7.6	7.6		5.1	
Actuated g/C Ratio	0.03	0.42	0.53	0.14	0.53			0.12	0.12		0.08	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	47	776	840	250	977			214	187		138	
v/s Ratio Prot	0.01	c0.23		c0.05	c0.18			c0.04			c0.02	
v/s Ratio Perm			0.04						0.01			
v/c Ratio	0.51	0.55	0.08	0.33	0.34			0.34	0.04		0.21	
Uniform Delay, d1	30.2	13.9	7.2	24.3	8.5			25.4	24.4		27.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	3.8	0.5	0.0	0.3	0.1			0.3	0.0		0.3	
Delay (s)	34.0	14.4	7.2	24.6	8.5			25.7	24.5		27.3	
Level of Service	C	B	A	C	A			C	C		C	
Approach Delay (s)		14.0			11.7			25.1			27.3	
Approach LOS		B			B			C			C	

Intersection Summary

HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	62.9	Sum of lost time (s)	15.1
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 analysis does not support custom phasing.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	425	113	194	393	66	123
Future Volume (vph)	425	113	194	393	66	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1558	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1558	1770	1863	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	462	123	211	427	72	134
RTOR Reduction (vph)	0	63	0	0	0	86
Lane Group Flow (vph)	462	60	211	427	72	48
Confl. Bikes (#/hr)		3				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	23.4	33.2	14.3	41.8	9.8	24.1
Effective Green, g (s)	23.4	33.2	14.3	41.8	9.8	24.1
Actuated g/C Ratio	0.35	0.49	0.21	0.62	0.14	0.36
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	644	765	374	1151	256	564
v/s Ratio Prot	c0.25	0.01	c0.12	0.23	c0.04	0.02
v/s Ratio Perm		0.03				0.01
v/c Ratio	0.72	0.08	0.56	0.37	0.28	0.08
Uniform Delay, d1	19.2	9.1	23.9	6.4	25.8	14.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.2	0.0	1.2	0.1	0.2	0.0
Delay (s)	22.4	9.1	25.0	6.5	26.0	14.5
Level of Service	C	A	C	A	C	B
Approach Delay (s)	19.6			12.6	18.5	
Approach LOS	B			B	B	

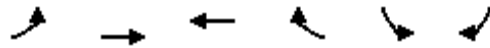
Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	67.6	Sum of lost time (s)	17.0
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.

El Dorado Senior Resort  
5: SR 49 & Missouri Flat Road

Cumulative (2035) Conditions

PM Peak



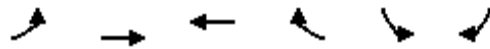
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	300	280	330	140	580	360
Future Volume (vph)	300	280	330	140	580	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	304	359	152	630	391
RTOR Reduction (vph)	0	0	0	50	0	133
Lane Group Flow (vph)	326	304	359	102	630	258
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	11.7	34.4	18.7	49.1	30.4	42.1
Effective Green, g (s)	11.7	34.4	18.7	49.1	30.4	42.1
Actuated g/C Ratio	0.16	0.47	0.25	0.67	0.41	0.57
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	546	871	473	1057	732	906
v/s Ratio Prot	c0.09	0.16	c0.19	0.04	c0.36	0.05
v/s Ratio Perm				0.02		0.12
v/c Ratio	0.60	0.35	0.76	0.10	0.86	0.28
Uniform Delay, d1	28.7	12.4	25.3	4.3	19.6	8.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	0.1	6.1	0.0	9.8	0.1
Delay (s)	29.9	12.5	31.4	4.3	29.4	8.1
Level of Service	C	B	C	A	C	A
Approach Delay (s)		21.5	23.4		21.3	
Approach LOS		C	C		C	

Intersection Summary

HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	12.7
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group





Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	300	280	330	140	580	360		
Future Volume (veh/h)	300	280	330	140	580	360		
Number	5	2	6	16	7	14		
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		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	326	304	359	152	630	391		
Adj No. of Lanes	2	1	1	1	1	1		
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	459	859	485	1034	696	832		
Arrive On Green	0.13	0.46	0.26	0.26	0.39	0.39		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	326	304	359	152	630	391		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	5.4	6.2	10.5	2.2	19.9	9.2		
Cycle Q Clear(g_c), s	5.4	6.2	10.5	2.2	19.9	9.2		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	459	859	485	1034	696	832		
V/C Ratio(X)	0.71	0.35	0.74	0.15	0.90	0.47		
Avail Cap(c_a), veh/h	1448	1254	1254	1687	896	1011		
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	10.3	20.1	4.0	17.0	8.9		
Incr Delay (d2), s/veh	0.8	0.1	0.8	0.0	9.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	3.2	5.5	3.4	11.4	9.5		
LnGrp Delay(d),s/veh	25.4	10.4	21.0	4.0	26.2	9.0		
LnGrp LOS	C	B	C	A	C	A		
Approach Vol, veh/h		630	511		1021			
Approach Delay, s/veh		18.2	15.9		19.6			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		31.5		27.9	11.9	19.6		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		8.2		21.9	7.4	12.5		
Green Ext Time (p_c), s		3.0		1.4	0.6	3.0		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			18.3					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Cumulative (2035) Conditions

PM Peak
























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↗	↗	
Traffic Volume (vph)	170	680	117	45	430	510	107	150	32	720	180	110
Future Volume (vph)	170	680	117	45	430	510	107	150	32	720	180	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	0.88	1.00	1.00		0.97	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3461		1770	1863	2722	1770	1809		3433	1757	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3461		1770	1863	2722	1770	1809		3433	1757	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	739	127	49	467	554	116	163	35	783	196	120
RTOR Reduction (vph)	0	9	0	0	0	267	0	6	0	0	15	0
Lane Group Flow (vph)	185	857	0	49	467	287	116	192	0	783	301	0
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2						
Actuated Green, G (s)	14.8	40.0		6.2	31.4	31.4	16.2	16.2		21.1	21.1	
Effective Green, g (s)	14.8	40.0		6.2	31.4	31.4	16.2	16.2		21.1	21.1	
Actuated g/C Ratio	0.15	0.41		0.06	0.32	0.32	0.16	0.16		0.21	0.21	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	266	1409		111	595	870	291	298		737	377	
v/s Ratio Prot	c0.10	0.25		0.03	c0.25		0.07	c0.11		c0.23	0.17	
v/s Ratio Perm						0.11						
v/c Ratio	0.70	0.61		0.44	0.78	0.33	0.40	0.64		1.06	0.80	
Uniform Delay, d1	39.6	22.9		44.3	30.3	25.4	36.6	38.3		38.5	36.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.2	0.5		1.0	6.2	0.1	0.3	3.6		51.0	10.5	
Delay (s)	45.8	23.4		45.4	36.6	25.5	37.0	41.9		89.5	47.1	
Level of Service	D	C		D	D	C	D	D		F	D	
Approach Delay (s)		27.4			31.2			40.1			77.3	
Approach LOS		C			C			D			E	

Intersection Summary

HCM 2000 Control Delay	45.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	98.2	Sum of lost time (s)	14.7
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	680	117	45	430	510	107	150	32	720	180	110
Future Volume (veh/h)	170	680	117	45	430	510	107	150	32	720	180	110
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	185	739	127	49	467	554	116	163	35	783	196	120
Adj No. of Lanes	1	2	0	1	1	2	1	1	0	2	1	0
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	222	1300	223	63	634	928	249	209	45	782	246	150
Arrive On Green	0.13	0.43	0.43	0.04	0.34	0.34	0.14	0.14	0.14	0.23	0.23	0.23
Sat Flow, veh/h	1774	3021	519	1774	1863	2724	1774	1486	319	3442	1082	663
Grp Volume(v), veh/h	185	433	433	49	467	554	116	0	198	783	0	316
Grp Sat Flow(s),veh/h/ln	1774	1770	1771	1774	1863	1362	1774	0	1805	1721	0	1745
Q Serve(g_s), s	9.0	16.2	16.3	2.4	19.4	14.8	5.3	0.0	9.3	20.0	0.0	15.1
Cycle Q Clear(g_c), s	9.0	16.2	16.3	2.4	19.4	14.8	5.3	0.0	9.3	20.0	0.0	15.1
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.18	1.00		0.38
Lane Grp Cap(c), veh/h	222	762	762	63	634	928	249	0	253	782	0	396
V/C Ratio(X)	0.83	0.57	0.57	0.78	0.74	0.60	0.47	0.00	0.78	1.00	0.00	0.80
Avail Cap(c_a), veh/h	403	1005	1005	403	1057	1546	604	0	615	782	0	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.6	18.9	18.9	42.1	25.6	24.0	34.8	0.0	36.6	34.0	0.0	32.1
Incr Delay (d2), s/veh	3.1	0.2	0.2	7.7	0.6	0.2	0.5	0.0	2.0	32.7	0.0	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	8.0	8.0	1.3	10.1	5.6	2.6	0.0	4.8	13.0	0.0	8.3
LnGrp Delay(d),s/veh	40.8	19.2	19.2	49.9	26.2	24.3	35.3	0.0	38.5	66.7	0.0	42.2
LnGrp LOS	D	B	B	D	C	C	D		D	F		D
Approach Vol, veh/h		1051			1070			314			1099	
Approach Delay, s/veh		23.0			26.3			37.4			59.7	
Approach LOS		C			C			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	34.6		23.0	6.1	42.5		16.5				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	11.0	21.4		22.0	4.4	18.3		11.3				
Green Ext Time (p_c), s	0.2	8.6		0.0	0.0	8.8		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			36.7									
HCM 2010 LOS			D									

Appendix G:

*Cumulative (2035) plus Proposed Project Conditions*

Intersection	
Intersection Delay, s/veh	98.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	5	382	114	174	374	3	245	1	290	1	0	5
Future Vol, veh/h	5	382	114	174	374	3	245	1	290	1	0	5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	455	136	207	445	4	292	1	345	1	0	6
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	116.6	49.2	134.5	13.5
HCM LOS	F	E	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	46%	1%	100%	0%	17%
Vol Thru, %	0%	76%	0%	99%	0%
Vol Right, %	54%	23%	0%	1%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	536	501	174	377	6
LT Vol	245	5	174	0	1
Through Vol	1	382	0	374	0
RT Vol	290	114	0	3	5
Lane Flow Rate	638	596	207	449	7
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.207	1.152	0.471	0.955	0.018
Departure Headway (Hd)	7.14	7.663	9.124	8.597	10.28
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	517	477	398	426	350
Service Time	5.14	5.663	6.824	6.297	8.28
HCM Lane V/C Ratio	1.234	1.249	0.52	1.054	0.02
HCM Control Delay	134.5	116.6	19.7	62.8	13.5
HCM Lane LOS	F	F	C	F	B
HCM 95th-tile Q	23	19.4	2.4	11.1	0.1

Intersection						
Int Delay, s/veh	6.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	182	481	422	18	41	120
Future Vol, veh/h	182	481	422	18	41	120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	534	469	20	46	133

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	489	0	-	0	1418
Stage 1	-	-	-	-	479
Stage 2	-	-	-	-	939
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	1074	-	-	-	151
Stage 1	-	-	-	-	623
Stage 2	-	-	-	-	380
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1074	-	-	-	111
Mov Cap-2 Maneuver	-	-	-	-	111
Stage 1	-	-	-	-	623
Stage 2	-	-	-	-	278

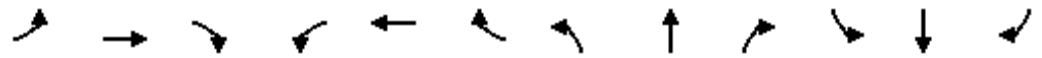
Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	37.8
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1074	-	-	-	281
HCM Lane V/C Ratio	0.188	-	-	-	0.637
HCM Control Delay (s)	9.1	0	-	-	37.8
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	4

El Dorado Senior Resort  
3: Koki Ln & SR 49

Cumulative (2035) plus Project Conditions

AM Peak



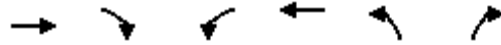
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	283	253	311	274	12	159	5	216	15	5	12
Future Volume (vph)	9	283	253	311	274	12	159	5	216	15	5	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1770	1863	1544	1770	1849			1777	1583		1710	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	1770	1863	1544	1770	1849			1777	1583		1710	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	11	354	316	389	342	15	199	6	270	19	6	15
RTOR Reduction (vph)	0	0	113	0	1	0	0	0	224	0	14	0
Lane Group Flow (vph)	11	354	203	389	357	0	0	205	46	0	26	0
Confl. Peds. (#/hr)			2	2			4					4
Confl. Bikes (#/hr)			1			1						
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	3.3	20.5	47.0	29.8	47.0			14.6	14.6		5.7	
Effective Green, g (s)	3.3	20.5	47.0	29.8	47.0			14.6	14.6		5.7	
Actuated g/C Ratio	0.04	0.24	0.55	0.35	0.55			0.17	0.17		0.07	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	68	445	846	615	1014			302	269		113	
v/s Ratio Prot	0.01	c0.19		c0.22	0.19			c0.12			c0.02	
v/s Ratio Perm			0.13						0.03			
v/c Ratio	0.16	0.80	0.24	0.63	0.35			0.68	0.17		0.23	
Uniform Delay, d1	39.9	30.6	10.1	23.4	10.8			33.4	30.4		37.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.4	8.9	0.1	1.6	0.1			4.7	0.1		0.4	
Delay (s)	40.3	39.5	10.1	24.9	10.9			38.1	30.5		38.3	
Level of Service	D	D	B	C	B			D	C		D	
Approach Delay (s)		25.9			18.2			33.8			38.3	
Approach LOS		C			B			C			D	

Intersection Summary		
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.66	
Actuated Cycle Length (s)	85.7	Sum of lost time (s) 15.1
Intersection Capacity Utilization	59.0%	ICU Level of Service B
Analysis Period (min)	15	

c Critical Lane Group

HCM 2010 analysis does not support custom phasing.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↗
Traffic Volume (vph)	440	67	68	511	113	190
Future Volume (vph)	440	67	68	511	113	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1561	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1561	1770	1863	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	489	74	76	568	126	211
RTOR Reduction (vph)	0	34	0	0	0	143
Lane Group Flow (vph)	489	40	76	568	126	68
Confl. Bikes (#/hr)		1				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	22.3	33.4	9.0	35.4	11.1	20.1
Effective Green, g (s)	22.3	33.4	9.0	35.4	11.1	20.1
Actuated g/C Ratio	0.36	0.54	0.14	0.57	0.18	0.32
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	665	835	255	1056	314	509
v/s Ratio Prot	c0.26	0.01	0.04	c0.30	c0.07	0.02
v/s Ratio Perm		0.02				0.02
v/c Ratio	0.74	0.05	0.30	0.54	0.40	0.13
Uniform Delay, d1	17.5	6.9	23.9	8.4	22.7	15.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.6	0.0	0.2	0.3	0.3	0.0
Delay (s)	21.1	6.9	24.1	8.7	23.0	15.0
Level of Service	C	A	C	A	C	B
Approach Delay (s)	19.3			10.5	18.0	
Approach LOS	B			B	B	

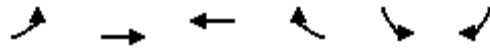
Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	62.4	Sum of lost time (s)	17.0
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.

El Dorado Senior Resort  
5: SR 49 & Missouri Flat Road

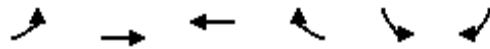
Cumulative (2035) plus Project Conditions

AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	375	269	408	390	150	264
Future Volume (vph)	375	269	408	390	150	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1568
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	408	292	443	424	163	287
RTOR Reduction (vph)	0	0	0	48	0	133
Lane Group Flow (vph)	408	292	443	376	163	154
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	12.4	35.8	19.4	30.5	11.1	23.5
Effective Green, g (s)	12.4	35.8	19.4	30.5	11.1	23.5
Actuated g/C Ratio	0.22	0.64	0.35	0.55	0.20	0.42
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	765	1199	650	868	353	662
v/s Ratio Prot	c0.12	0.16	c0.24	0.09	c0.09	0.05
v/s Ratio Perm				0.15		0.05
v/c Ratio	0.53	0.24	0.68	0.43	0.46	0.23
Uniform Delay, d1	19.0	4.2	15.5	7.4	19.6	10.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	2.4	0.1	0.3	0.1
Delay (s)	19.4	4.2	17.8	7.6	20.0	10.3
Level of Service	B	A	B	A	B	B
Approach Delay (s)		13.1	12.8		13.8	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	55.6	Sum of lost time (s)	12.7
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

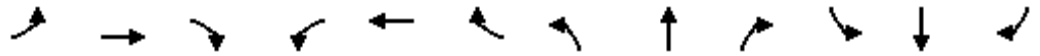


Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	375	269	408	390	150	264		
Future Volume (veh/h)	375	269	408	390	150	264		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	408	292	443	424	163	287		
Adj No. of Lanes	2	1	1	1	1	1		
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	592	1125	636	857	354	589		
Arrive On Green	0.17	0.60	0.34	0.34	0.20	0.20		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	408	292	443	424	163	287		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	4.9	3.3	9.1	7.4	3.6	6.2		
Cycle Q Clear(g_c), s	4.9	3.3	9.1	7.4	3.6	6.2		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	592	1125	636	857	354	589		
V/C Ratio(X)	0.69	0.26	0.70	0.49	0.46	0.49		
Avail Cap(c_a), veh/h	1943	1683	1683	1747	1202	1345		
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	17.2	4.1	12.6	6.4	15.6	10.7		
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.2	0.3	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.4	1.6	4.6	7.6	1.8	5.8		
LnGrp Delay(d),s/veh	17.8	4.2	13.1	6.5	16.0	10.9		
LnGrp LOS	B	A	B	A	B	B		
Approach Vol, veh/h		700	867		450			
Approach Delay, s/veh		12.1	9.9		12.7			
Approach LOS		B	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		30.8		13.4	11.6	19.2		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		5.3		8.2	6.9	11.1		
Green Ext Time (p_c), s		4.1		0.7	0.7	4.0		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			11.3					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Cumulative (2035) plus Project Conditions

AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↘		↖	↗	↗↘	↖	↗		↗↘	↗	
Traffic Volume (vph)	155	274	69	32	644	630	111	140	14	450	100	104
Future Volume (vph)	155	274	69	32	644	630	111	140	14	450	100	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	0.88	1.00	1.00		0.97	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3432		1770	1863	2724	1770	1838		3433	1721	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3432		1770	1863	2724	1770	1838		3433	1721	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	298	75	35	700	685	121	152	15	489	109	113
RTOR Reduction (vph)	0	12	0	0	0	180	0	3	0	0	27	0
Lane Group Flow (vph)	168	361	0	35	700	505	121	164	0	489	195	0
Confl. Peds. (#/hr)	1					1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2						
Actuated Green, G (s)	14.7	61.8		4.6	51.7	51.7	16.0	16.0		19.6	19.6	
Effective Green, g (s)	14.7	61.8		4.6	51.7	51.7	16.0	16.0		19.6	19.6	
Actuated g/C Ratio	0.13	0.53		0.04	0.44	0.44	0.14	0.14		0.17	0.17	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	222	1817		69	825	1206	242	251		576	289	
v/s Ratio Prot	c0.09	0.11		0.02	c0.38		0.07	c0.09		c0.14	0.11	
v/s Ratio Perm						0.19						
v/c Ratio	0.76	0.20		0.51	0.85	0.42	0.50	0.66		0.85	0.67	
Uniform Delay, d1	49.3	14.4		54.9	29.0	22.2	46.6	47.7		47.1	45.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.3	0.0		2.1	7.8	0.1	0.6	4.6		10.8	4.8	
Delay (s)	61.5	14.5		57.1	36.8	22.3	47.2	52.4		57.9	50.3	
Level of Service	E	B		E	D	C	D	D		E	D	
Approach Delay (s)		29.1			30.3			50.2			55.5	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	38.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	116.7	Sum of lost time (s)	14.7
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	274	69	32	644	630	111	140	14	450	100	104
Future Volume (veh/h)	155	274	69	32	644	630	111	140	14	450	100	104
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	168	298	75	35	700	685	121	152	15	489	109	113
Adj No. of Lanes	1	2	0	1	1	2	1	1	0	2	1	0
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	203	1470	364	46	808	1208	210	197	19	590	144	149
Arrive On Green	0.11	0.52	0.52	0.03	0.43	0.43	0.12	0.12	0.12	0.17	0.17	0.17
Sat Flow, veh/h	1774	2812	697	1774	1863	2783	1774	1669	165	3442	839	870
Grp Volume(v), veh/h	168	186	187	35	700	685	121	0	167	489	0	222
Grp Sat Flow(s),veh/h/ln	1774	1770	1739	1774	1863	1392	1774	0	1834	1721	0	1709
Q Serve(g_s), s	8.4	5.1	5.2	1.8	30.9	16.8	5.9	0.0	8.0	12.5	0.0	11.2
Cycle Q Clear(g_c), s	8.4	5.1	5.2	1.8	30.9	16.8	5.9	0.0	8.0	12.5	0.0	11.2
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.09	1.00		0.51
Lane Grp Cap(c), veh/h	203	925	909	46	808	1208	210	0	217	590	0	293
V/C Ratio(X)	0.83	0.20	0.21	0.76	0.87	0.57	0.58	0.00	0.77	0.83	0.00	0.76
Avail Cap(c_a), veh/h	391	974	958	391	1026	1533	586	0	606	758	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.3	11.6	11.6	44.0	23.3	19.3	37.9	0.0	38.8	36.3	0.0	35.8
Incr Delay (d2), s/veh	3.2	0.0	0.0	9.4	5.5	0.2	0.9	0.0	2.2	4.8	0.0	4.5
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	4.3	2.5	2.5	1.0	17.0	6.4	2.9	0.0	4.2	6.3	0.0	5.7
LnGrp Delay(d),s/veh	42.6	11.6	11.6	53.3	28.8	19.5	38.8	0.0	41.0	41.2	0.0	40.4
LnGrp LOS	D	B	B	D	C	B	D		D	D		D
Approach Vol, veh/h		541			1420			288			711	
Approach Delay, s/veh		21.2			24.9			40.1			40.9	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	44.0		18.6	5.3	52.1		14.8				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+l1), s	10.4	32.9		14.5	3.8	7.2		10.0				
Green Ext Time (p_c), s	0.2	6.5		1.1	0.0	8.0		0.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			29.6									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	20	1	1	360	550	19
Future Vol, veh/h	20	1	1	360	550	19
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	22	1	1	391	598	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1001	608	618	0	-	0
Stage 1	608	-	-	-	-	-
Stage 2	393	-	-	-	-	-
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	269	496	962	-	-	-
Stage 1	543	-	-	-	-	-
Stage 2	682	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	269	496	962	-	-	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	543	-	-	-	-	-
Stage 2	681	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	962	-	275	-	-
HCM Lane V/C Ratio	0.001	-	0.083	-	-
HCM Control Delay (s)	8.7	0	19.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Intersection Delay, s/veh	66.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	12	420	238	243	302	2	109	2	184	4	2	12
Future Vol, veh/h	12	420	238	243	302	2	109	2	184	4	2	12
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	457	259	264	328	2	118	2	200	4	2	13
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	127.1	19.1	19.4	11.8
HCM LOS	F	C	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	2%	100%	0%	22%
Vol Thru, %	1%	63%	0%	99%	11%
Vol Right, %	62%	36%	0%	1%	67%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	295	670	243	304	18
LT Vol	109	12	243	0	4
Through Vol	2	420	0	302	2
RT Vol	184	238	0	2	12
Lane Flow Rate	321	728	264	330	20
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.584	1.202	0.525	0.61	0.042
Departure Headway (Hd)	7.009	5.943	7.473	6.955	8.394
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	519	612	486	522	429
Service Time	5.009	3.958	5.173	4.655	6.394
HCM Lane V/C Ratio	0.618	1.19	0.543	0.632	0.047
HCM Control Delay	19.4	127.1	18.1	19.9	11.8
HCM Lane LOS	C	F	C	C	B
HCM 95th-tile Q	3.7	25.8	3	4	0.1



**Intersection**

Int Delay, s/veh 4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	134	484	344	24	31	190
Future Vol, veh/h	134	484	344	24	31	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	146	526	374	26	34	207

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	400	0	0 1204 387
Stage 1	-	-	- 387 -
Stage 2	-	-	- 817 -
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	1159	-	- 203 661
Stage 1	-	-	- 686 -
Stage 2	-	-	- 434 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1159	-	- 167 661
Mov Cap-2 Maneuver	-	-	- 167 -
Stage 1	-	-	- 686 -
Stage 2	-	-	- 357 -

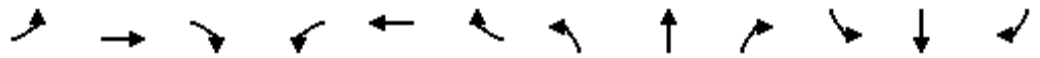
Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1159	-	-	-	467
HCM Lane V/C Ratio	0.126	-	-	-	0.514
HCM Control Delay (s)	8.6	0	-	-	20.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.9

El Dorado Senior Resort  
3: Koki Ln & SR 49

Cumulative (2035) plus Project Conditions

PM Peak

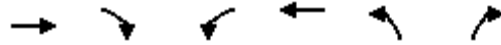


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗			↖	↗		↕	
Traffic Volume (vph)	22	396	98	97	290	21	73	1	86	24	2	14
Future Volume (vph)	22	396	98	97	290	21	73	1	86	24	2	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	0.98		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (prot)	1770	1863	1583	1770	1841			1775	1550		1709	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	
Satd. Flow (perm)	1770	1863	1583	1770	1841			1775	1550		1709	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	430	107	105	315	23	79	1	93	26	2	15
RTOR Reduction (vph)	0	0	34	0	1	0	0	0	79	0	14	0
Lane Group Flow (vph)	24	430	73	105	337	0	0	80	14	0	29	0
Confl. Peds. (#/hr)	3					3	2		1	1		2
Turn Type	Prot	NA	custom	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			6						8			
Actuated Green, G (s)	2.0	25.4	33.4	10.0	33.4			10.0	10.0		5.3	
Effective Green, g (s)	2.0	25.4	33.4	10.0	33.4			10.0	10.0		5.3	
Actuated g/C Ratio	0.03	0.39	0.51	0.15	0.51			0.15	0.15		0.08	
Clearance Time (s)	3.0	4.9	4.9	3.0	4.9			3.7	3.7		3.5	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0		2.0	
Lane Grp Cap (vph)	53	719	803	268	934			269	235		137	
v/s Ratio Prot	0.01	c0.23		c0.06	0.18			c0.05			c0.02	
v/s Ratio Perm			0.05						0.01			
v/c Ratio	0.45	0.60	0.09	0.39	0.36			0.30	0.06		0.21	
Uniform Delay, d1	31.4	16.1	8.4	25.2	9.8			24.8	23.9		28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	2.2	0.9	0.0	0.3	0.1			0.2	0.0		0.3	
Delay (s)	33.6	17.0	8.4	25.5	9.8			25.0	23.9		28.6	
Level of Service	C	B	A	C	A			C	C		C	
Approach Delay (s)		16.1			13.6			24.4			28.6	
Approach LOS		B			B			C			C	

Intersection Summary

HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	65.8	Sum of lost time (s)	15.1
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 analysis does not support custom phasing.

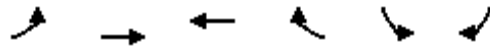


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↗
Traffic Volume (vph)	445	116	194	413	68	123
Future Volume (vph)	445	116	194	413	68	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1558	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1558	1770	1863	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	484	126	211	449	74	134
RTOR Reduction (vph)	0	63	0	0	0	87
Lane Group Flow (vph)	484	63	211	449	74	47
Confl. Bikes (#/hr)		3				
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	3	1	6	3	1
Permitted Phases		2				3
Actuated Green, G (s)	24.7	34.6	14.6	43.4	9.9	24.5
Effective Green, g (s)	24.7	34.6	14.6	43.4	9.9	24.5
Actuated g/C Ratio	0.36	0.50	0.21	0.63	0.14	0.35
Clearance Time (s)	5.8	5.1	4.1	5.8	5.1	4.1
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lane Grp Cap (vph)	664	777	372	1166	252	559
v/s Ratio Prot	c0.26	0.01	c0.12	0.24	c0.04	0.02
v/s Ratio Perm		0.03				0.01
v/c Ratio	0.73	0.08	0.57	0.39	0.29	0.08
Uniform Delay, d1	19.4	9.1	24.5	6.4	26.6	14.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.0	1.2	0.1	0.2	0.0
Delay (s)	22.8	9.1	25.7	6.5	26.8	15.0
Level of Service	C	A	C	A	C	B
Approach Delay (s)	20.0			12.6	19.2	
Approach LOS	B			B	B	

**Intersection Summary**

HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	69.3	Sum of lost time (s)	17.0
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 methodology does not support exclusive ped or hold phases.

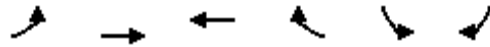


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	307	293	343	140	580	367
Future Volume (vph)	307	293	343	140	580	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	334	318	373	152	630	399
RTOR Reduction (vph)	0	0	0	50	0	127
Lane Group Flow (vph)	334	318	373	102	630	272
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		4
Actuated Green, G (s)	12.0	35.5	19.5	49.9	30.4	42.4
Effective Green, g (s)	12.0	35.5	19.5	49.9	30.4	42.4
Actuated g/C Ratio	0.16	0.48	0.26	0.67	0.41	0.57
Clearance Time (s)	4.0	4.1	4.1	4.6	4.6	4.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	552	886	486	1058	721	899
v/s Ratio Prot	c0.10	0.17	c0.20	0.04	c0.36	0.05
v/s Ratio Perm				0.03		0.12
v/c Ratio	0.61	0.36	0.77	0.10	0.87	0.30
Uniform Delay, d1	29.1	12.4	25.5	4.4	20.3	8.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	6.4	0.0	11.1	0.1
Delay (s)	30.4	12.4	31.9	4.4	31.4	8.5
Level of Service	C	B	C	A	C	A
Approach Delay (s)		21.6	23.9		22.5	
Approach LOS		C	C		C	

**Intersection Summary**

HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	74.6	Sum of lost time (s)	12.7
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

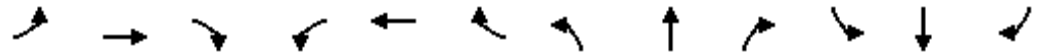


Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↔↔	↑	↑	↔	↔	↔		
Traffic Volume (veh/h)	307	293	343	140	580	367		
Future Volume (veh/h)	307	293	343	140	580	367		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	334	318	373	152	630	399		
Adj No. of Lanes	2	1	1	1	1	1		
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	464	870	497	1042	694	832		
Arrive On Green	0.13	0.47	0.27	0.27	0.39	0.39		
Sat Flow, veh/h	3442	1863	1863	1583	1774	1583		
Grp Volume(v), veh/h	334	318	373	152	630	399		
Grp Sat Flow(s),veh/h/ln	1721	1863	1863	1583	1774	1583		
Q Serve(g_s), s	5.7	6.7	11.2	2.2	20.5	9.8		
Cycle Q Clear(g_c), s	5.7	6.7	11.2	2.2	20.5	9.8		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	464	870	497	1042	694	832		
V/C Ratio(X)	0.72	0.37	0.75	0.15	0.91	0.48		
Avail Cap(c_a), veh/h	1405	1216	1216	1653	869	989		
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	25.4	10.5	20.6	4.0	17.6	9.2		
Incr Delay (d2), s/veh	0.8	0.1	0.9	0.0	10.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.7	3.5	5.8	3.5	11.9	10.0		
LnGrp Delay(d),s/veh	26.2	10.6	21.4	4.0	27.8	9.4		
LnGrp LOS	C	B	C	A	C	A		
Approach Vol, veh/h		652	525		1029			
Approach Delay, s/veh		18.6	16.4		20.7			
Approach LOS		B	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		32.7		28.5	12.3	20.5		
Change Period (Y+Rc), s		4.1		4.6	4.0	4.1		
Max Green Setting (Gmax), s		40.0		30.0	25.0	40.0		
Max Q Clear Time (g_c+I1), s		8.7		22.5	7.7	13.2		
Green Ext Time (p_c), s		3.2		1.4	0.6	3.1		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			19.0					
HCM 2010 LOS			B					

El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Cumulative (2035) plus Project Conditions

PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↗	↗	
Traffic Volume (vph)	177	686	117	45	436	510	107	150	32	720	180	117
Future Volume (vph)	177	686	117	45	436	510	107	150	32	720	180	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	0.88	1.00	1.00		0.97	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3462		1770	1863	2722	1770	1809		3433	1753	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3462		1770	1863	2722	1770	1809		3433	1753	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	746	127	49	474	554	116	163	35	783	196	127
RTOR Reduction (vph)	0	9	0	0	0	262	0	6	0	0	16	0
Lane Group Flow (vph)	192	864	0	49	474	292	116	192	0	783	307	0
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)						1						
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases						2						
Actuated Green, G (s)	15.3	41.1		6.2	32.0	32.0	16.2	16.2		21.0	21.0	
Effective Green, g (s)	15.3	41.1		6.2	32.0	32.0	16.2	16.2		21.0	21.0	
Actuated g/C Ratio	0.15	0.41		0.06	0.32	0.32	0.16	0.16		0.21	0.21	
Clearance Time (s)	3.0	4.6		3.0	4.6	4.6	4.1	4.1		3.0	3.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	272	1434		110	600	878	289	295		726	371	
v/s Ratio Prot	c0.11	0.25		0.03	c0.25		0.07	c0.11		c0.23	0.18	
v/s Ratio Perm						0.11						
v/c Ratio	0.71	0.60		0.45	0.79	0.33	0.40	0.65		1.08	0.83	
Uniform Delay, d1	39.8	22.7		44.8	30.5	25.5	37.2	38.9		39.1	37.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.7	0.5		1.0	6.5	0.1	0.3	3.9		56.6	13.5	
Delay (s)	46.5	23.2		45.9	37.1	25.6	37.5	42.7		95.7	50.8	
Level of Service	D	C		D	D	C	D	D		F	D	
Approach Delay (s)		27.4			31.6			40.8			82.6	
Approach LOS		C			C			D			F	

Intersection Summary		
HCM 2000 Control Delay	47.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.82	D
Actuated Cycle Length (s)	99.2	Sum of lost time (s)
Intersection Capacity Utilization	77.6%	14.7
Analysis Period (min)	15	ICU Level of Service
		D






















c Critical Lane Group



El Dorado Senior Resort  
6: Fowler Ln & SR 49/Pleasant Valley Rd

Cumulative (2035) plus Project Conditions

PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	686	117	45	436	510	107	150	32	720	180	117
Future Volume (veh/h)	177	686	117	45	436	510	107	150	32	720	180	117
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	192	746	127	49	474	554	116	163	35	783	196	127
Adj No. of Lanes	1	2	0	1	1	2	1	1	0	2	1	0
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	229	1321	225	63	639	934	248	208	45	770	236	153
Arrive On Green	0.13	0.44	0.44	0.04	0.34	0.34	0.14	0.14	0.14	0.22	0.22	0.22
Sat Flow, veh/h	1774	3026	515	1774	1863	2724	1774	1486	319	3442	1056	684
Grp Volume(v), veh/h	192	436	437	49	474	554	116	0	198	783	0	323
Grp Sat Flow(s),veh/h/ln	1774	1770	1771	1774	1863	1362	1774	0	1805	1721	0	1741
Q Serve(g_s), s	9.5	16.5	16.5	2.4	20.0	15.0	5.4	0.0	9.5	20.0	0.0	15.8
Cycle Q Clear(g_c), s	9.5	16.5	16.5	2.4	20.0	15.0	5.4	0.0	9.5	20.0	0.0	15.8
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.18	1.00		0.39
Lane Grp Cap(c), veh/h	229	773	773	63	639	934	248	0	253	770	0	389
V/C Ratio(X)	0.84	0.56	0.56	0.78	0.74	0.59	0.47	0.00	0.78	1.02	0.00	0.83
Avail Cap(c_a), veh/h	397	990	991	397	1042	1523	595	0	606	770	0	389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.0	18.8	18.8	42.8	25.9	24.2	35.4	0.0	37.1	34.7	0.0	33.1
Incr Delay (d2), s/veh	3.2	0.2	0.2	7.7	0.6	0.2	0.5	0.0	2.0	36.7	0.0	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	8.0	8.1	1.3	10.4	5.6	2.7	0.0	4.9	13.3	0.0	9.0
LnGrp Delay(d),s/veh	41.2	19.1	19.1	50.5	26.5	24.4	35.9	0.0	39.2	71.4	0.0	46.2
LnGrp LOS	D	B	B	D	C	C	D		D	F		D
Approach Vol, veh/h		1065			1077			314			1106	
Approach Delay, s/veh		23.1			26.5			38.0			64.1	
Approach LOS		C			C			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.5	35.3		23.0	6.2	43.6		16.6				
Change Period (Y+Rc), s	3.0	4.6		3.0	3.0	4.6		4.1				
Max Green Setting (Gmax), s	20.0	50.0		20.0	20.0	50.0		30.0				
Max Q Clear Time (g_c+I1), s	11.5	22.0		22.0	4.4	18.5		11.5				
Green Ext Time (p_c), s	0.2	8.6		0.0	0.0	8.9		0.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			38.2									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	1	1	130	168	29
Future Vol, veh/h	30	1	1	130	168	29
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	33	1	1	141	183	32

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	341	198	214	0	0
Stage 1	198	-	-	-	-
Stage 2	143	-	-	-	-
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	655	843	1356	-	-
Stage 1	835	-	-	-	-
Stage 2	884	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	654	843	1356	-	-
Mov Cap-2 Maneuver	654	-	-	-	-
Stage 1	835	-	-	-	-
Stage 2	883	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1356	-	659	-	-
HCM Lane V/C Ratio	0.001	-	0.051	-	-
HCM Control Delay (s)	7.7	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-


















Appendix H:


















*Existing (2018), Near-Term (2028) and Cumulative (2035) plus Proposed Project Mitigated Conditions*

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	382	114	174	374	3	245	1	290	1	0	5
Future Volume (veh/h)	5	382	114	174	374	3	245	1	290	1	0	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.99	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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	6	455	136	207	445	4	292	1	345	1	0	6
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	32	616	183	257	832	7	305	1	360	9	0	55
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.40	0.40	0.40	0.04	0.00	0.04
Sat Flow, veh/h	5	1366	405	822	1843	17	760	3	898	230	0	1378
Grp Volume(v), veh/h	597	0	0	207	0	449	638	0	0	7	0	0
Grp Sat Flow(s),veh/h/ln	1776	0	0	822	0	1860	1660	0	0	1608	0	0
Q Serve(g_s), s	0.0	0.0	0.0	21.9	0.0	21.9	46.8	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	34.6	0.0	0.0	56.5	0.0	21.9	46.8	0.0	0.0	0.5	0.0	0.0
Prop In Lane	0.01		0.23	1.00		0.01	0.46		0.54	0.14		0.86
Lane Grp Cap(c), veh/h	831	0	0	257	0	839	665	0	0	64	0	0
V/C Ratio(X)	0.72	0.00	0.00	0.81	0.00	0.53	0.96	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	831	0	0	257	0	839	689	0	0	231	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.3	0.0	0.0	44.4	0.0	24.8	36.5	0.0	0.0	57.9	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0	16.9	0.0	0.7	24.1	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.6	0.0	0.0	8.3	0.0	11.4	25.9	0.0	0.0	0.2	0.0	0.0
LnGrp Delay(d),s/veh	31.4	0.0	0.0	61.3	0.0	25.5	60.6	0.0	0.0	58.7	0.0	0.0
LnGrp LOS	C			E		C	E			E		
Approach Vol, veh/h		597			656			638				7
Approach Delay, s/veh		31.4			36.8			60.6				58.7
Approach LOS		C			D			E				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.7		61.0		9.5		61.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		52.0		56.5		18.0		56.5				
Max Q Clear Time (g_c+I1), s		48.8		36.6		2.5		58.5				
Green Ext Time (p_c), s		1.4		4.1		0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				43.2								
HCM 2010 LOS				D								


















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	420	238	243	302	2	109	2	184	4	2	12
Future Volume (veh/h)	12	420	238	243	302	2	109	2	184	4	2	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	13	457	259	264	328	2	118	2	200	4	2	13
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
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	54	590	329	331	984	6	133	2	226	24	12	79
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.22	0.22	0.22	0.07	0.07	0.07
Sat Flow, veh/h	11	1110	618	732	1849	11	606	10	1027	341	171	1110
Grp Volume(v), veh/h	729	0	0	264	0	330	320	0	0	19	0	0
Grp Sat Flow(s),veh/h/ln	1739	0	0	732	0	1861	1643	0	0	1622	0	0
Q Serve(g_s), s	0.0	0.0	0.0	15.0	0.0	7.7	14.4	0.0	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	25.5	0.0	0.0	40.5	0.0	7.7	14.4	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.02		0.36	1.00		0.01	0.37		0.62	0.21		0.68
Lane Grp Cap(c), veh/h	973	0	0	331	0	990	361	0	0	115	0	0
V/C Ratio(X)	0.75	0.00	0.00	0.80	0.00	0.33	0.89	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	973	0	0	331	0	990	388	0	0	383	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.3	0.0	0.0	24.2	0.0	10.1	28.8	0.0	0.0	33.2	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	12.7	0.0	0.2	20.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	0.0	0.0	6.7	0.0	4.0	8.5	0.0	0.0	0.4	0.0	0.0
LnGrp Delay(d),s/veh	17.6	0.0	0.0	36.9	0.0	10.3	48.9	0.0	0.0	33.9	0.0	0.0
LnGrp LOS	B			D		B	D			C		
Approach Vol, veh/h		729			594			320				19
Approach Delay, s/veh		17.6			22.2			48.9				33.9
Approach LOS		B			C			D				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.2		45.0		9.9		45.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		40.5		18.0		40.5				
Max Q Clear Time (g_c+I1), s		16.4		27.5		2.8		42.5				
Green Ext Time (p_c), s		0.3		4.5		0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				25.4								
HCM 2010 LOS				C								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	298	98	168	293	1	216	1	290	0	0	0
Future Volume (veh/h)	0	298	98	168	293	1	216	1	290	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.99	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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	0	377	124	213	371	1	273	1	367	0	0	0
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	645	212	322	897	2	301	1	404	0	2	0
Arrive On Green	0.00	0.48	0.48	0.48	0.48	0.48	0.43	0.43	0.43	0.00	0.00	0.00
Sat Flow, veh/h	0	1335	439	894	1857	5	704	3	947	0	1863	0
Grp Volume(v), veh/h	0	0	501	213	0	372	641	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1774	894	0	1862	1654	0	0	0	1863	0
Q Serve(g_s), s	0.0	0.0	20.3	22.6	0.0	12.9	36.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	20.3	42.9	0.0	12.9	36.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.25	1.00		0.00	0.43		0.57	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	857	322	0	899	706	0	0	0	2	0
V/C Ratio(X)	0.00	0.00	0.58	0.66	0.00	0.41	0.91	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	1126	457	0	1182	909	0	0	0	335	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	18.6	34.1	0.0	16.7	26.8	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	2.3	0.0	0.3	10.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.0	5.8	0.0	6.7	18.7	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	19.3	36.4	0.0	17.0	37.5	0.0	0.0	0.0	0.0	0.0
LnGrp LOS			B	D		B	D					
Approach Vol, veh/h		501			585			641				0
Approach Delay, s/veh		19.3			24.1			37.5				0.0
Approach LOS		B			C			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		47.2		52.8		0.0		52.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		55.0		63.5		18.0		63.5				
Max Q Clear Time (g_c+I1), s		38.3		22.3		0.0		44.9				
Green Ext Time (p_c), s		4.4		3.8		0.0		3.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				27.7								
HCM 2010 LOS				C								

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	361	203	243	229	2	89	2	174	4	2	6
Future Volume (veh/h)	6	361	203	243	229	2	89	2	174	4	2	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	6	372	209	251	236	2	92	2	179	4	2	6
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
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	58	568	315	428	936	8	113	2	220	45	23	68
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.20	0.20	0.20	0.08	0.08	0.08
Sat Flow, veh/h	4	1118	621	830	1844	16	551	12	1073	556	278	835
Grp Volume(v), veh/h	587	0	0	251	0	238	273	0	0	12	0	0
Grp Sat Flow(s),veh/h/ln	1744	0	0	830	0	1860	1636	0	0	1669	0	0
Q Serve(g_s), s	0.0	0.0	0.0	9.3	0.0	4.7	10.4	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	16.3	0.0	0.0	25.6	0.0	4.7	10.4	0.0	0.0	0.4	0.0	0.0
Prop In Lane	0.01		0.36	1.00		0.01	0.34		0.66	0.33		0.50
Lane Grp Cap(c), veh/h	940	0	0	428	0	944	335	0	0	136	0	0
V/C Ratio(X)	0.62	0.00	0.00	0.59	0.00	0.25	0.82	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	1111	0	0	510	0	1127	470	0	0	459	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	16.2	0.0	9.1	24.9	0.0	0.0	27.8	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.3	0.0	0.1	7.5	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	0.0	4.1	0.0	2.4	5.4	0.0	0.0	0.2	0.0	0.0
LnGrp Delay(d),s/veh	12.8	0.0	0.0	17.4	0.0	9.3	32.3	0.0	0.0	28.1	0.0	0.0
LnGrp LOS	B			B		A	C			C		
Approach Vol, veh/h		587			489			273				12
Approach Delay, s/veh		12.8			13.5			32.3				28.1
Approach LOS		B			B			C				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		17.9		37.8		9.9		37.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.8		39.7		18.0		39.7				
Max Q Clear Time (g_c+I1), s		12.4		18.3		2.4		27.6				
Green Ext Time (p_c), s		0.8		7.6		0.0		5.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.1								
HCM 2010 LOS				B								

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	333	105	170	326	2	228	1	290	0	0	2
Future Volume (veh/h)	2	333	105	170	326	2	228	1	290	0	0	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.99	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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	2	396	125	202	388	2	271	1	345	0	0	2
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	569	179	296	780	4	288	1	367	0	0	78
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.40	0.40	0.40	0.00	0.00	0.05
Sat Flow, veh/h	1	1350	425	877	1851	10	727	3	926	0	0	1583
Grp Volume(v), veh/h	523	0	0	202	0	390	617	0	0	0	0	2
Grp Sat Flow(s),veh/h/ln	1776	0	0	877	0	1861	1656	0	0	0	0	1583
Q Serve(g_s), s	0.0	0.0	0.0	14.8	0.0	15.5	36.3	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	24.5	0.0	0.0	39.3	0.0	15.5	36.3	0.0	0.0	0.0	0.0	0.1
Prop In Lane	0.00		0.24	1.00		0.01	0.44		0.56	0.00		1.00
Lane Grp Cap(c), veh/h	784	0	0	296	0	784	656	0	0	0	0	78
V/C Ratio(X)	0.67	0.00	0.00	0.68	0.00	0.50	0.94	0.00	0.00	0.00	0.00	0.03
Avail Cap(c_a), veh/h	833	0	0	320	0	836	703	0	0	0	0	281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	0.0	33.7	0.0	21.5	29.4	0.0	0.0	0.0	0.0	45.9
Incr Delay (d2), s/veh	1.9	0.0	0.0	5.3	0.0	0.5	20.0	0.0	0.0	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	12.3	0.0	0.0	5.9	0.0	8.0	20.1	0.0	0.0	0.0	0.0	0.1
LnGrp Delay(d),s/veh	25.9	0.0	0.0	39.0	0.0	22.0	49.5	0.0	0.0	0.0	0.0	46.0
LnGrp LOS	C			D		C	D					D
Approach Vol, veh/h		523			592			617				2
Approach Delay, s/veh		25.9			27.8			49.5				46.0
Approach LOS		C			C			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.7		47.2		9.5		47.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		43.0		45.5		18.0		45.5				
Max Q Clear Time (g_c+I1), s		38.3		26.5		2.1		41.3				
Green Ext Time (p_c), s		1.8		3.4		0.0		1.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			35.0									
HCM 2010 LOS			C									



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	385	217	243	259	2	97	2	178	4	2	8
Future Volume (veh/h)	8	385	217	243	259	2	97	2	178	4	2	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	9	418	236	264	282	2	105	2	193	4	2	9
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
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	54	589	328	379	977	7	123	2	225	32	16	73
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.21	0.21	0.21	0.07	0.07	0.07
Sat Flow, veh/h	7	1115	620	776	1847	13	574	11	1055	438	219	986
Grp Volume(v), veh/h	663	0	0	264	0	284	300	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	1742	0	0	776	0	1860	1639	0	0	1643	0	0
Q Serve(g_s), s	0.0	0.0	0.0	15.2	0.0	6.2	12.9	0.0	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	21.1	0.0	0.0	36.4	0.0	6.2	12.9	0.0	0.0	0.6	0.0	0.0
Prop In Lane	0.01		0.36	1.00		0.01	0.35		0.64	0.27		0.60
Lane Grp Cap(c), veh/h	971	0	0	379	0	984	350	0	0	121	0	0
V/C Ratio(X)	0.68	0.00	0.00	0.70	0.00	0.29	0.86	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	988	0	0	387	0	1002	425	0	0	403	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	20.4	0.0	9.6	27.8	0.0	0.0	31.8	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.0	5.3	0.0	0.2	13.7	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	0.0	0.0	5.7	0.0	3.2	7.2	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	15.0	0.0	0.0	25.7	0.0	9.8	41.5	0.0	0.0	32.2	0.0	0.0
LnGrp LOS	B			C		A	D			C		
Approach Vol, veh/h		663			548			300				15
Approach Delay, s/veh		15.0			17.4			41.5				32.2
Approach LOS		B			B			D				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.2		43.3		9.9		43.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.0		39.5		18.0		39.5				
Max Q Clear Time (g_c+I1), s		14.9		23.1		2.6		38.4				
Green Ext Time (p_c), s		0.7		4.4		0.0		0.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.3								
HCM 2010 LOS				C								

Appendix I:  
*Queuing Analysis*



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	11	354	310	371	358	199	251	40
Act Effect Green (s)	7.9	20.4	47.0	27.0	47.0	14.4	14.4	9.0
Actuated g/C Ratio	0.10	0.25	0.57	0.33	0.57	0.18	0.18	0.11
v/c Ratio	0.07	0.76	0.31	0.64	0.34	0.64	0.52	0.20
Control Delay	39.8	42.1	6.5	35.5	18.0	44.6	9.2	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	42.1	6.5	35.5	18.0	44.6	9.2	29.9
LOS	D	D	A	D	B	D	A	C
Approach Delay		25.7			26.9	24.8		29.9
Approach LOS		C			C	C		C
Queue Length 50th (ft)	5	164	12	159	80	94	0	12
Queue Length 95th (ft)	21	310	84	#427	313	196	42	42
Internal Link Dist (ft)		1839			446	1093		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	584	861	988	584	1062	586	690	573
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.41	0.31	0.64	0.34	0.34	0.36	0.07

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 81.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 26.1

Intersection LOS: C

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	473	73	76	554	123	211
Act Effect Green (s)	20.7	32.3	9.0	34.4	10.8	25.3
Actuated g/C Ratio	0.34	0.53	0.15	0.56	0.18	0.41
v/c Ratio	0.75	0.08	0.29	0.53	0.39	0.27
Control Delay	28.0	2.7	34.3	12.6	32.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	2.7	34.3	12.6	32.8	3.4
LOS	C	A	C	B	C	A
Approach Delay	24.6			15.2	14.2	
Approach LOS	C			B	B	
Queue Length 50th (ft)	107	0	19	73	31	0
Queue Length 95th (ft)	436	21	106	406	151	34
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1678	1325	842	1769	1011	1231
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.06	0.09	0.31	0.12	0.17

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 61.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.4	Intersection LOS: B
Intersection Capacity Utilization 47.4%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	402	283	435	424	163	283
Act Effect Green (s)	12.1	35.1	18.7	34.1	11.1	23.8
Actuated g/C Ratio	0.22	0.63	0.34	0.61	0.20	0.43
v/c Ratio	0.54	0.24	0.69	0.42	0.46	0.35
Control Delay	24.1	5.3	23.6	5.3	26.7	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	5.3	23.6	5.3	26.7	3.7
LOS	C	A	C	A	C	A
Approach Delay		16.4	14.6		12.1	
Approach LOS		B	B		B	
Queue Length 50th (ft)	56	30	113	39	45	7
Queue Length 95th (ft)	138	85	275	102	126	48
Internal Link Dist (ft)		587	765		83	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1663	1802	1414	1496	1029	1166
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.16	0.31	0.28	0.16	0.24

**Intersection Summary**

Cycle Length: 107.7	
Actuated Cycle Length: 55.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	163	368	35	696	685	121	167	489	218
Act Effect Green (s)	14.5	61.1	6.8	49.9	49.9	16.0	16.0	19.6	19.6
Actuated g/C Ratio	0.13	0.53	0.06	0.43	0.43	0.14	0.14	0.17	0.17
v/c Ratio	0.73	0.20	0.34	0.86	0.50	0.49	0.64	0.84	0.68
Control Delay	69.2	15.3	64.1	43.5	14.2	52.9	58.0	61.0	52.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.2	15.3	64.1	43.5	14.2	52.9	58.0	61.0	52.1
LOS	E	B	E	D	B	D	E	E	D
Approach Delay		31.9		29.8			55.9		58.2
Approach LOS		C		C			E		E
Queue Length 50th (ft)	116	69	25	449	99	84	117	179	129
Queue Length 95th (ft)	215	131	66	#876	206	149	195	#331	#283
Internal Link Dist (ft)		636		910			807		1084
Turn Bay Length (ft)	180		100		170			400	
Base Capacity (vph)	311	1837	311	821	1382	468	488	605	329
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.20	0.11	0.85	0.50	0.26	0.34	0.81	0.66

**Intersection Summary**

Cycle Length: 134.7  
 Actuated Cycle Length: 114.8  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 39.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.0%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	24	430	99	82	338	73	68	43
Act Effect Green (s)	7.3	28.3	35.4	8.8	35.4	10.1	10.1	9.4
Actuated g/C Ratio	0.12	0.48	0.60	0.15	0.60	0.17	0.17	0.16
v/c Ratio	0.11	0.48	0.10	0.31	0.31	0.24	0.21	0.15
Control Delay	33.7	21.9	8.8	34.3	16.0	29.6	9.5	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.7	21.9	8.8	34.3	16.0	29.6	9.5	23.2
LOS	C	C	A	C	B	C	A	C
Approach Delay		20.1			19.6	19.9		23.3
Approach LOS		C			B	B		C
Queue Length 50th (ft)	7	117	5	24	55	22	0	8
Queue Length 95th (ft)	40	394	60	105	310	85	34	47
Internal Link Dist (ft)		1839			446	1093		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	921	1273	1102	921	1259	924	841	938
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.34	0.09	0.09	0.27	0.08	0.08	0.05

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 59

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 20.0

Intersection LOS: B

Intersection Capacity Utilization 45.5%

ICU Level of Service A

Analysis Period (min) 15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	462	123	211	427	72	134
Act Effect Green (s)	22.7	33.4	14.3	41.8	9.8	29.6
Actuated g/C Ratio	0.34	0.49	0.21	0.62	0.15	0.44
v/c Ratio	0.74	0.15	0.56	0.37	0.28	0.17
Control Delay	29.8	3.1	34.8	8.7	37.9	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	3.1	34.8	8.7	37.9	3.4
LOS	C	A	C	A	D	A
Approach Delay	24.2			17.3	15.5	
Approach LOS	C			B	B	
Queue Length 50th (ft)	126	0	61	50	22	0
Queue Length 95th (ft)	461	32	247	261	107	27
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1650	1321	758	1750	909	1082
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.09	0.28	0.24	0.08	0.12

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 67.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	326	304	359	152	630	391
Act Effect Green (s)	11.7	34.4	18.6	53.2	30.4	46.8
Actuated g/C Ratio	0.16	0.47	0.25	0.72	0.41	0.64
v/c Ratio	0.60	0.35	0.76	0.13	0.86	0.35
Control Delay	34.4	13.1	36.9	1.0	36.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	13.1	36.9	1.0	36.7	2.7
LOS	C	B	D	A	D	A
Approach Delay		24.1	26.2		23.7	
Approach LOS		C	C		C	
Queue Length 50th (ft)	71	83	149	0	248	12
Queue Length 95th (ft)	124	131	258	15	#584	56
Internal Link Dist (ft)		587	765		53	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1181	1724	1025	1186	731	1354
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.18	0.35	0.13	0.86	0.29

**Intersection Summary**

Cycle Length: 107.7  
 Actuated Cycle Length: 73.6  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 24.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 68.6%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	866	49	467	554	116	198	783	316
Act Effect Green (s)	14.8	40.0	7.5	30.6	30.6	16.2	16.2	21.1	21.1
Actuated g/C Ratio	0.15	0.41	0.08	0.31	0.31	0.17	0.17	0.22	0.22
v/c Ratio	0.70	0.61	0.36	0.81	0.50	0.40	0.65	1.06	0.81
Control Delay	57.6	25.3	57.4	43.2	9.5	43.6	49.8	90.6	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	25.3	57.4	43.2	9.5	43.6	49.8	90.6	55.5
LOS	E	C	E	D	A	D	D	F	E
Approach Delay		31.0		26.4			47.5		80.5
Approach LOS		C		C			D		F
Queue Length 50th (ft)	106	211	28	255	39	63	109	~273	172
Queue Length 95th (ft)	#253	357	84	467	105	143	227	#621	#499
Internal Link Dist (ft)		636		910			807		1084
Turn Bay Length (ft)	180		100		170			400	
Base Capacity (vph)	380	1907	380	999	1642	570	587	737	392
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.45	0.13	0.47	0.34	0.20	0.34	1.06	0.81

**Intersection Summary**

Cycle Length: 134.7  
 Actuated Cycle Length: 98.1  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 46.5  
 Intersection Capacity Utilization 76.9%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service D

~ 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	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	11	354	316	389	358	205	270	40
Act Effect Green (s)	7.9	20.5	47.0	27.0	47.0	14.6	14.6	9.0
Actuated g/C Ratio	0.10	0.25	0.57	0.33	0.57	0.18	0.18	0.11
v/c Ratio	0.07	0.76	0.32	0.67	0.34	0.65	0.54	0.20
Control Delay	39.9	42.2	6.5	36.6	18.0	45.0	9.2	30.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	42.2	6.5	36.6	18.0	45.0	9.2	30.0
LOS	D	D	A	D	B	D	A	C
Approach Delay		25.6			27.7	24.6		30.0
Approach LOS		C			C	C		C
Queue Length 50th (ft)	5	165	13	171	81	97	0	12
Queue Length 95th (ft)	21	310	84	#455	313	202	42	42
Internal Link Dist (ft)		1839			446	473		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	582	857	988	582	1059	584	701	571
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.41	0.32	0.67	0.34	0.35	0.39	0.07

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 82.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 59.0%

ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	489	74	76	568	126	211
Act Effect Green (s)	21.5	33.4	9.0	35.4	11.1	25.6
Actuated g/C Ratio	0.35	0.54	0.14	0.57	0.18	0.41
v/c Ratio	0.76	0.08	0.30	0.54	0.40	0.27
Control Delay	28.2	2.6	35.1	12.7	33.5	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	2.6	35.1	12.7	33.5	3.4
LOS	C	A	D	B	C	A
Approach Delay	24.9			15.4	14.6	
Approach LOS	C			B	B	
Queue Length 50th (ft)	113	0	20	77	32	0
Queue Length 95th (ft)	456	21	108	422	156	35
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1674	1328	828	1763	994	1218
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.06	0.09	0.32	0.13	0.17

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 62.3	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 48.2%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	408	292	443	424	163	287
Act Effect Green (s)	12.4	35.7	19.1	34.6	11.1	24.1
Actuated g/C Ratio	0.22	0.64	0.34	0.62	0.20	0.43
v/c Ratio	0.54	0.25	0.70	0.42	0.47	0.36
Control Delay	24.4	5.3	23.8	5.4	27.3	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	5.3	23.8	5.4	27.3	4.0
LOS	C	A	C	A	C	A
Approach Delay		16.4	14.8		12.4	
Approach LOS		B	B		B	
Queue Length 50th (ft)	58	31	116	40	46	8
Queue Length 95th (ft)	141	88	282	105	128	52
Internal Link Dist (ft)		587	765		83	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1644	1798	1400	1492	1017	1154
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.16	0.32	0.28	0.16	0.25

**Intersection Summary**

Cycle Length: 107.7	
Actuated Cycle Length: 56.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	168	373	35	700	685	121	167	489	222
Act Effect Green (s)	14.7	61.8	6.8	50.3	50.3	16.1	16.1	19.6	19.6
Actuated g/C Ratio	0.13	0.54	0.06	0.44	0.44	0.14	0.14	0.17	0.17
v/c Ratio	0.75	0.20	0.34	0.86	0.50	0.49	0.65	0.84	0.70
Control Delay	70.1	15.4	64.2	43.9	14.3	53.2	58.4	61.7	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	15.4	64.2	43.9	14.3	53.2	58.4	61.7	52.7
LOS	E	B	E	D	B	D	E	E	D
Approach Delay		32.4		30.1			56.2		58.9
Approach LOS		C		C			E		E
Queue Length 50th (ft)	120	70	25	456	101	85	117	180	132
Queue Length 95th (ft)	220	132	66	#885	207	149	195	#331	#287
Internal Link Dist (ft)		636		910			807		1084
Turn Bay Length (ft)	180		100		170			400	
Base Capacity (vph)	309	1848	309	815	1373	464	485	600	328
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.20	0.11	0.86	0.50	0.26	0.34	0.81	0.68

**Intersection Summary**

Cycle Length: 134.7

Actuated Cycle Length: 115.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 40.0

Intersection LOS: D

Intersection Capacity Utilization 77.5%

ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	24	430	107	105	338	80	93	43
Act Effect Green (s)	7.2	25.4	33.4	9.6	33.4	10.0	10.0	9.0
Actuated g/C Ratio	0.11	0.40	0.53	0.15	0.53	0.16	0.16	0.14
v/c Ratio	0.12	0.57	0.12	0.39	0.34	0.28	0.29	0.17
Control Delay	34.4	24.2	8.8	35.2	16.6	31.1	10.3	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	24.2	8.8	35.2	16.6	31.1	10.3	24.1
LOS	C	C	A	D	B	C	B	C
Approach Delay		21.7			21.0	19.9		24.1
Approach LOS		C			C	B		C
Queue Length 50th (ft)	8	122	5	32	56	25	0	9
Queue Length 95th (ft)	40	404	63	128	314	93	43	48
Internal Link Dist (ft)		1839			446	469		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	813	1244	1086	813	1236	815	761	793
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.35	0.10	0.13	0.27	0.10	0.12	0.05

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 62.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 21.3

Intersection LOS: C

Intersection Capacity Utilization 46.7%

ICU Level of Service A

Analysis Period (min) 15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	484	126	211	449	74	134
Act Effect Green (s)	24.0	34.7	14.6	43.3	9.9	29.9
Actuated g/C Ratio	0.35	0.50	0.21	0.63	0.14	0.43
v/c Ratio	0.75	0.15	0.57	0.38	0.29	0.18
Control Delay	30.1	3.0	35.7	8.7	38.9	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	3.0	35.7	8.7	38.9	3.5
LOS	C	A	D	A	D	A
Approach Delay	24.5			17.4	16.1	
Approach LOS	C			B	B	
Queue Length 50th (ft)	136	0	63	53	23	0
Queue Length 95th (ft)	489	32	252	280	111	28
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1635	1323	740	1744	888	1062
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.10	0.29	0.26	0.08	0.13

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 69.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 53.3%	ICU Level of Service A
Analysis Period (min) 15	





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	334	318	373	152	630	399
Act Effect Green (s)	12.0	35.5	19.4	54.0	30.4	47.1
Actuated g/C Ratio	0.16	0.48	0.26	0.72	0.41	0.63
v/c Ratio	0.61	0.36	0.77	0.13	0.88	0.36
Control Delay	34.9	13.1	37.2	1.0	38.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	13.1	37.2	1.0	38.6	3.2
LOS	C	B	D	A	D	A
Approach Delay		24.3	26.7		24.9	
Approach LOS		C	C		C	
Queue Length 50th (ft)	74	87	157	0	255	17
Queue Length 95th (ft)	128	136	271	15	#599	65
Internal Link Dist (ft)		587	765		53	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1165	1708	1011	1186	720	1336
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.19	0.37	0.13	0.88	0.30

**Intersection Summary**

Cycle Length: 107.7

Actuated Cycle Length: 74.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 25.1

Intersection LOS: C

Intersection Capacity Utilization 69.5%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	192	873	49	474	554	116	198	783	323
Act Effct Green (s)	15.3	41.1	7.5	31.1	31.1	16.3	16.3	21.0	21.0
Actuated g/C Ratio	0.15	0.41	0.08	0.31	0.31	0.16	0.16	0.21	0.21
v/c Ratio	0.70	0.60	0.37	0.81	0.50	0.40	0.66	1.08	0.83
Control Delay	57.9	25.1	58.1	43.9	9.8	44.1	50.4	95.3	58.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	25.1	58.1	43.9	9.8	44.1	50.4	95.3	58.5
LOS	E	C	E	D	A	D	D	F	E
Approach Delay		31.0		27.0			48.1		84.6
Approach LOS		C		C			D		F
Queue Length 50th (ft)	112	214	29	264	42	65	112	~282	181
Queue Length 95th (ft)	#268	361	84	475	108	143	227	#621	#514
Internal Link Dist (ft)		636		910			807		1084
Turn Bay Length (ft)	180		100		170			400	
Base Capacity (vph)	375	1885	375	987	1623	563	580	728	387
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.46	0.13	0.48	0.34	0.21	0.34	1.08	0.83

**Intersection Summary**

Cycle Length: 134.7

Actuated Cycle Length: 99.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 47.9

Intersection LOS: D

Intersection Capacity Utilization 77.6%

ICU Level of Service D

Analysis Period (min) 15

~ 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	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	4	356	306	414	338	166	237	32
Act Effect Green (s)	7.7	20.1	46.8	27.1	46.8	12.9	12.9	8.9
Actuated g/C Ratio	0.10	0.25	0.58	0.34	0.58	0.16	0.16	0.11
v/c Ratio	0.02	0.76	0.31	0.69	0.31	0.58	0.52	0.16
Control Delay	38.7	41.3	6.4	36.2	17.1	43.2	9.8	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	41.3	6.4	36.2	17.1	43.2	9.8	30.3
LOS	D	D	A	D	B	D	A	C
Approach Delay		25.3			27.6	23.6		30.3
Approach LOS		C			C	C		C
Queue Length 50th (ft)	2	160	12	176	70	76	0	10
Queue Length 95th (ft)	10	265	53	#401	250	146	19	31
Internal Link Dist (ft)		1839			446	1093		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	598	882	999	598	1084	600	692	588
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.40	0.31	0.69	0.31	0.28	0.34	0.05

**Intersection Summary**

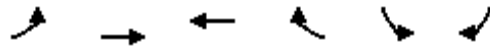
Cycle Length: 125.1  
 Actuated Cycle Length: 80.1  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 25.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 52.7%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	448	57	47	573	98	183
Act Effect Green (s)	18.9	30.2	8.7	34.8	10.4	19.8
Actuated g/C Ratio	0.35	0.56	0.16	0.64	0.19	0.37
v/c Ratio	0.69	0.06	0.17	0.48	0.29	0.26
Control Delay	24.2	2.9	30.9	11.8	29.2	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	2.9	30.9	11.8	29.2	3.6
LOS	C	A	C	B	C	A
Approach Delay	21.8			13.2	12.5	
Approach LOS	C			B	B	
Queue Length 50th (ft)	98	0	11	74	22	0
Queue Length 95th (ft)	341	16	68	367	107	24
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1699	1362	982	1801	1159	1247
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.04	0.05	0.32	0.08	0.15

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 54.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 44.8%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	398	241	401	627	237	241
Act Effct Green (s)	12.6	35.8	19.0	36.7	13.3	26.6
Actuated g/C Ratio	0.22	0.61	0.33	0.63	0.23	0.46
v/c Ratio	0.54	0.21	0.66	0.61	0.59	0.29
Control Delay	25.2	6.0	24.2	8.1	28.4	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	6.0	24.2	8.1	28.4	2.4
LOS	C	A	C	A	C	A
Approach Delay		17.9	14.3		15.3	
Approach LOS		B	B		B	
Queue Length 50th (ft)	60	30	113	79	70	0
Queue Length 95th (ft)	137	78	258	197	174	31
Internal Link Dist (ft)		587	765		74	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1560	1803	1354	1458	965	1164
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.13	0.30	0.43	0.25	0.21

**Intersection Summary**

Cycle Length: 107.7	
Actuated Cycle Length: 58.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 53.3%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	126	347	11	797	165	123	7	93	123
Act Effect Green (s)	11.7	64.3	5.3	51.0	51.0	13.6	13.6	9.9	9.9
Actuated g/C Ratio	0.12	0.64	0.05	0.50	0.50	0.13	0.13	0.10	0.10
v/c Ratio	0.61	0.16	0.12	0.85	0.20	0.51	0.03	0.54	0.48
Control Delay	57.9	9.7	55.1	34.9	11.5	48.9	0.2	58.0	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	9.7	55.1	34.9	11.5	48.9	0.2	58.0	18.9
LOS	E	A	E	C	B	D	A	E	B
Approach Delay		22.6		31.1		46.3			35.7
Approach LOS		C		C		D			D
Queue Length 50th (ft)	75	36	7	396	29	73	0	55	9
Queue Length 95th (ft)	165	115	30	#1007	105	144	0	131	71
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	357	2216	357	939	814	543	522	357	412
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.16	0.03	0.85	0.20	0.23	0.01	0.26	0.30

**Intersection Summary**

Cycle Length: 134.7  
 Actuated Cycle Length: 101.2  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 30.5  
 Intersection Capacity Utilization 67.9%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service C

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	16	403	50	45	310	39	47	22
Act Effect Green (s)	7.3	27.8	29.0	7.5	29.0	9.6	9.6	9.4
Actuated g/C Ratio	0.14	0.55	0.57	0.15	0.57	0.19	0.19	0.19
v/c Ratio	0.06	0.40	0.05	0.17	0.29	0.12	0.13	0.06
Control Delay	28.7	16.9	5.3	30.4	15.8	24.6	4.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.7	16.9	5.3	30.4	15.8	24.6	4.7	0.3
LOS	C	B	A	C	B	C	A	A
Approach Delay		16.0			17.7	13.7		0.3
Approach LOS		B			B	B		A
Queue Length 50th (ft)	2	31	0	5	22	4	0	0
Queue Length 95th (ft)	30	349	22	66	285	50	16	0
Internal Link Dist (ft)		1839			446	1093		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	1128	1460	1254	1128	1447	1128	1013	1123
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.28	0.04	0.04	0.21	0.03	0.05	0.02

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 50.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

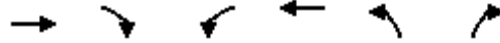
Intersection Signal Delay: 16.1

Intersection LOS: B

Intersection Capacity Utilization 42.7%

ICU Level of Service A

Analysis Period (min) 15

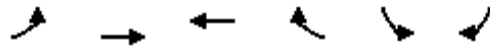


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	429	85	165	378	46	99
Act Effect Green (s)	20.4	31.2	11.7	39.5	9.9	22.1
Actuated g/C Ratio	0.35	0.54	0.20	0.68	0.17	0.38
v/c Ratio	0.66	0.10	0.46	0.30	0.15	0.15
Control Delay	24.9	3.4	31.5	8.1	33.2	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	3.4	31.5	8.1	33.2	3.8
LOS	C	A	C	A	C	A
Approach Delay	21.3			15.2	13.1	
Approach LOS	C			B	B	
Queue Length 50th (ft)	103	0	42	43	11	0
Queue Length 95th (ft)	387	27	184	217	71	23
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1685	1363	928	1779	1099	1143
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.06	0.18	0.21	0.04	0.09

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 58.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 49.6%	ICU Level of Service A
Analysis Period (min) 15	





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	210	311	249	388	690	337
Act Effect Green (s)	8.5	26.5	13.9	48.4	30.3	43.5
Actuated g/C Ratio	0.13	0.40	0.21	0.74	0.46	0.66
v/c Ratio	0.47	0.41	0.63	0.31	0.84	0.29
Control Delay	31.2	15.3	30.9	1.2	29.8	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	15.3	30.9	1.2	29.8	1.5
LOS	C	B	C	A	C	A
Approach Delay		21.7	12.9		20.6	
Approach LOS		C	B		C	
Queue Length 50th (ft)	39	85	90	4	221	0
Queue Length 95th (ft)	80	138	162	24	#563	30
Internal Link Dist (ft)		587	765		211	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1322	1819	1148	1256	818	1471
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.17	0.22	0.31	0.84	0.23

**Intersection Summary**

Cycle Length: 107.7  
 Actuated Cycle Length: 65.6  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 18.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 66.2%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	106	885	26	388	110	126	33	213	168
Act Effect Green (s)	10.0	29.5	6.3	22.4	22.4	13.1	13.1	15.3	15.3
Actuated g/C Ratio	0.13	0.40	0.08	0.30	0.30	0.18	0.18	0.21	0.21
v/c Ratio	0.45	0.64	0.17	0.69	0.21	0.40	0.10	0.58	0.42
Control Delay	42.4	21.9	44.3	33.1	8.8	35.3	2.9	39.2	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	21.9	44.3	33.1	8.8	35.3	2.9	39.2	24.7
LOS	D	C	D	C	A	D	A	D	C
Approach Delay		24.1		28.6		28.6			32.8
Approach LOS		C		C		C			C
Queue Length 50th (ft)	43	132	11	149	5	51	0	83	38
Queue Length 95th (ft)	133	358	48	364	50	131	9	#253	142
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	535	2489	535	1336	1135	815	742	535	550
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.36	0.05	0.29	0.10	0.15	0.04	0.40	0.31

**Intersection Summary**

Cycle Length: 134.7  
 Actuated Cycle Length: 74.2  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 27.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 60.6%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	4	356	313	434	338	173	258	32
Act Effect Green (s)	7.7	20.2	46.8	27.1	46.8	13.2	13.2	8.9
Actuated g/C Ratio	0.10	0.25	0.58	0.34	0.58	0.16	0.16	0.11
v/c Ratio	0.02	0.76	0.31	0.73	0.31	0.59	0.54	0.16
Control Delay	38.7	41.4	6.4	37.8	17.2	43.5	9.7	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	41.4	6.4	37.8	17.2	43.5	9.7	30.4
LOS	D	D	A	D	B	D	A	C
Approach Delay		25.1			28.8	23.3		30.4
Approach LOS		C			C	C		C
Queue Length 50th (ft)	2	161	12	189	70	79	0	10
Queue Length 95th (ft)	10	265	53	#429	250	151	18	31
Internal Link Dist (ft)		1839			446	582		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	595	877	998	595	1080	596	703	584
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.41	0.31	0.73	0.31	0.29	0.37	0.05

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 80.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 54.0%

ICU Level of Service A

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	464	58	47	587	100	183
Act Effect Green (s)	19.6	31.0	8.7	35.6	10.5	19.9
Actuated g/C Ratio	0.36	0.56	0.16	0.65	0.19	0.36
v/c Ratio	0.70	0.06	0.17	0.49	0.30	0.27
Control Delay	24.5	2.8	31.5	11.8	29.7	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	2.8	31.5	11.8	29.7	3.7
LOS	C	A	C	B	C	A
Approach Delay	22.1			13.3	12.9	
Approach LOS	C			B	B	
Queue Length 50th (ft)	103	0	11	77	23	0
Queue Length 95th (ft)	358	16	70	379	110	24
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1695	1364	972	1795	1146	1236
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.04	0.05	0.33	0.09	0.15

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 55.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	403	251	410	627	237	246
Act Effct Green (s)	12.7	36.3	19.3	37.1	13.4	26.8
Actuated g/C Ratio	0.22	0.62	0.33	0.63	0.23	0.45
v/c Ratio	0.54	0.22	0.67	0.61	0.59	0.29
Control Delay	25.5	6.0	24.5	8.1	28.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	6.0	24.5	8.1	28.7	2.4
LOS	C	A	C	A	C	A
Approach Delay		18.0	14.6		15.3	
Approach LOS		B	B		B	
Queue Length 50th (ft)	62	32	116	80	71	0
Queue Length 95th (ft)	140	82	267	201	177	31
Internal Link Dist (ft)		587	765		211	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1546	1798	1342	1455	956	1159
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.14	0.31	0.43	0.25	0.21

**Intersection Summary**

Cycle Length: 107.7	
Actuated Cycle Length: 59	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 53.5%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	132	351	11	801	165	123	7	93	127
Act Effect Green (s)	12.1	64.6	5.4	51.0	51.0	13.6	13.6	9.9	9.9
Actuated g/C Ratio	0.12	0.64	0.05	0.50	0.50	0.13	0.13	0.10	0.10
v/c Ratio	0.63	0.16	0.12	0.86	0.20	0.51	0.03	0.54	0.49
Control Delay	58.2	9.7	55.3	35.7	11.8	49.3	0.2	58.3	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	9.7	55.3	35.7	11.8	49.3	0.2	58.3	18.9
LOS	E	A	E	D	B	D	A	E	B
Approach Delay		23.0		31.8		46.6			35.5
Approach LOS		C		C		D			D
Queue Length 50th (ft)	79	36	7	402	30	73	0	56	9
Queue Length 95th (ft)	171	116	30	#1022	107	145	0	130	73
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	355	2219	355	935	810	541	520	355	414
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.16	0.03	0.86	0.20	0.23	0.01	0.26	0.31

**Intersection Summary**

Cycle Length: 134.7  
 Actuated Cycle Length: 101.6  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 31.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 68.4%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	16	403	57	68	310	47	71	22
Act Effect Green (s)	7.4	25.9	30.1	8.3	30.1	9.7	9.7	9.5
Actuated g/C Ratio	0.14	0.50	0.58	0.16	0.58	0.19	0.19	0.18
v/c Ratio	0.06	0.43	0.06	0.24	0.29	0.14	0.20	0.06
Control Delay	29.7	19.0	6.2	30.7	15.8	26.0	9.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	19.0	6.2	30.7	15.8	26.0	9.7	0.3
LOS	C	B	A	C	B	C	A	A
Approach Delay		17.8			18.5	16.2		0.3
Approach LOS		B			B	B		A
Queue Length 50th (ft)	3	65	0	12	22	8	0	0
Queue Length 95th (ft)	30	359	28	90	290	59	36	0
Internal Link Dist (ft)		1839			446	534		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	1104	1451	1247	1104	1437	1150	1031	1101
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.28	0.05	0.06	0.22	0.04	0.07	0.02

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 51.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 17.5

Intersection LOS: B

Intersection Capacity Utilization 42.9%

ICU Level of Service A

Analysis Period (min) 15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	450	89	165	399	48	99
Act Effect Green (s)	21.4	32.3	11.9	40.7	10.0	22.4
Actuated g/C Ratio	0.36	0.54	0.20	0.68	0.17	0.38
v/c Ratio	0.67	0.10	0.46	0.31	0.16	0.15
Control Delay	25.2	3.3	32.2	8.1	34.0	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	3.3	32.2	8.1	34.0	3.9
LOS	C	A	C	A	C	A
Approach Delay	21.6			15.1	13.7	
Approach LOS	C			B	B	
Queue Length 50th (ft)	110	0	43	46	12	0
Queue Length 95th (ft)	412	28	188	231	75	23
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1680	1366	913	1772	1083	1126
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.07	0.18	0.23	0.04	0.09

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 59.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	218	325	263	388	690	344
Act Effect Green (s)	8.7	27.1	14.4	48.8	30.3	43.6
Actuated g/C Ratio	0.13	0.41	0.22	0.74	0.46	0.66
v/c Ratio	0.48	0.43	0.65	0.31	0.85	0.30
Control Delay	31.5	15.4	31.6	1.3	30.9	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	15.4	31.6	1.3	30.9	1.6
LOS	C	B	C	A	C	A
Approach Delay		21.8	13.5		21.2	
Approach LOS		C	B		C	
Queue Length 50th (ft)	41	89	96	5	227	0
Queue Length 95th (ft)	83	144	171	26	#565	30
Internal Link Dist (ft)		587	765		77	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1309	1818	1137	1252	810	1462
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.18	0.23	0.31	0.85	0.24

**Intersection Summary**

Cycle Length: 107.7  
 Actuated Cycle Length: 66.2  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 19.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 67.1%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	113	891	26	394	110	126	33	213	175
Act Effect Green (s)	10.4	30.2	6.3	22.8	22.8	13.2	13.2	15.4	15.4
Actuated g/C Ratio	0.14	0.40	0.08	0.30	0.30	0.18	0.18	0.20	0.20
v/c Ratio	0.46	0.64	0.18	0.70	0.21	0.40	0.10	0.59	0.44
Control Delay	42.9	21.8	45.0	33.5	8.9	36.0	2.8	39.9	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	21.8	45.0	33.5	8.9	36.0	2.8	39.9	25.0
LOS	D	C	D	C	A	D	A	D	C
Approach Delay		24.1		29.0		29.1			33.2
Approach LOS		C		C		C			C
Queue Length 50th (ft)	47	135	11	153	5	52	0	84	40
Queue Length 95th (ft)	141	361	49	374	51	133	9	#261	149
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	529	2465	529	1323	1125	807	735	529	547
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.36	0.05	0.30	0.10	0.16	0.04	0.40	0.32

**Intersection Summary**

Cycle Length: 134.7

Actuated Cycle Length: 75.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 27.4

Intersection LOS: C

Intersection Capacity Utilization 60.8%

ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	7	353	307	393	346	180	243	35
Act Effect Green (s)	7.8	20.1	46.8	27.1	46.8	13.5	13.5	9.0
Actuated g/C Ratio	0.10	0.25	0.58	0.34	0.58	0.17	0.17	0.11
v/c Ratio	0.04	0.76	0.31	0.66	0.32	0.61	0.52	0.17
Control Delay	38.8	41.4	6.4	35.6	17.4	43.9	9.6	29.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	41.4	6.4	35.6	17.4	43.9	9.6	29.7
LOS	D	D	A	D	B	D	A	C
Approach Delay		25.3			27.1	24.2		29.7
Approach LOS		C			C	C		C
Queue Length 50th (ft)	3	160	12	167	74	83	0	10
Queue Length 95th (ft)	15	281	64	#409	275	166	29	35
Internal Link Dist (ft)		1839			446	1093		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	593	874	994	593	1073	595	692	581
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.40	0.31	0.66	0.32	0.30	0.35	0.06

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 80.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 25.8

Intersection LOS: C

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	446	62	63	548	106	190
Act Effect Green (s)	18.6	29.5	8.5	31.8	10.2	24.1
Actuated g/C Ratio	0.32	0.51	0.15	0.55	0.18	0.42
v/c Ratio	0.74	0.07	0.24	0.53	0.34	0.25
Control Delay	27.4	2.9	32.0	12.7	30.5	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	2.9	32.0	12.7	30.5	3.4
LOS	C	A	C	B	C	A
Approach Delay	24.4			14.7	13.1	
Approach LOS	C			B	B	
Queue Length 50th (ft)	98	0	15	69	24	0
Queue Length 95th (ft)	381	19	85	383	125	30
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1692	1320	881	1790	1058	1260
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.05	0.07	0.31	0.10	0.15

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 57.7	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 45.9%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	420	257	401	627	237	255
Act Effect Green (s)	13.1	36.4	19.1	36.9	13.4	27.1
Actuated g/C Ratio	0.22	0.62	0.32	0.62	0.23	0.46
v/c Ratio	0.55	0.22	0.67	0.61	0.59	0.30
Control Delay	25.4	6.0	24.6	8.5	28.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	6.0	24.6	8.5	28.9	2.3
LOS	C	A	C	A	C	A
Approach Delay		18.0	14.8		15.1	
Approach LOS		B	B		B	
Queue Length 50th (ft)	64	33	114	85	71	0
Queue Length 95th (ft)	145	83	262	209	177	31
Internal Link Dist (ft)		587	765		88	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1541	1798	1338	1449	953	1159
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.14	0.30	0.43	0.25	0.22

**Intersection Summary**

Cycle Length: 107.7	
Actuated Cycle Length: 59.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	125	383	12	788	273	141	9	114	122
Act Effect Green (s)	11.8	64.4	5.4	51.1	51.1	14.4	14.4	11.2	11.2
Actuated g/C Ratio	0.11	0.62	0.05	0.49	0.49	0.14	0.14	0.11	0.11
v/c Ratio	0.62	0.18	0.13	0.86	0.33	0.57	0.03	0.60	0.45
Control Delay	59.4	10.5	56.5	36.8	12.7	51.5	0.2	59.6	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	10.5	56.5	36.8	12.7	51.5	0.2	59.6	17.8
LOS	E	B	E	D	B	D	A	E	B
Approach Delay		22.5		30.9		48.5			38.0
Approach LOS		C		C		D			D
Queue Length 50th (ft)	77	43	7	413	53	86	0	70	9
Queue Length 95th (ft)	166	130	32	#1017	174	166	0	155	70
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	349	2162	349	919	821	531	512	349	405
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.18	0.03	0.86	0.33	0.27	0.02	0.33	0.30

**Intersection Summary**

Cycle Length: 134.7

Actuated Cycle Length: 103.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 30.9

Intersection LOS: C

Intersection Capacity Utilization 68.8%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	20	420	71	61	325	54	57	32
Act Effect Green (s)	7.3	27.4	31.4	8.0	31.4	9.8	9.8	9.4
Actuated g/C Ratio	0.14	0.52	0.59	0.15	0.59	0.18	0.18	0.18
v/c Ratio	0.08	0.44	0.07	0.23	0.30	0.16	0.16	0.10
Control Delay	31.1	18.8	7.2	31.8	15.4	26.5	7.1	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	18.8	7.2	31.8	15.4	26.5	7.1	22.5
LOS	C	B	A	C	B	C	A	C
Approach Delay		17.6			18.0	16.6		22.5
Approach LOS		B			B	B		C
Queue Length 50th (ft)	4	71	1	13	25	11	0	5
Queue Length 95th (ft)	35	373	38	84	298	65	24	38
Internal Link Dist (ft)		1839			446	1093		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	1067	1408	1211	1067	1394	1069	962	1037
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.30	0.06	0.06	0.23	0.05	0.06	0.03

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 53

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

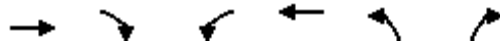
Intersection Signal Delay: 17.8

Intersection LOS: B

Intersection Capacity Utilization 43.5%

ICU Level of Service A

Analysis Period (min) 15

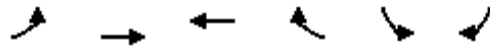


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	453	103	188	408	58	115
Act Effect Green (s)	21.4	31.8	12.6	38.7	9.6	27.7
Actuated g/C Ratio	0.33	0.50	0.20	0.60	0.15	0.43
v/c Ratio	0.73	0.13	0.54	0.36	0.22	0.15
Control Delay	28.8	3.3	34.0	8.7	35.8	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	3.3	34.0	8.7	35.8	3.6
LOS	C	A	C	A	D	A
Approach Delay	24.0			16.7	14.4	
Approach LOS	C			B	B	
Queue Length 50th (ft)	116	0	51	47	16	0
Queue Length 95th (ft)	434	30	215	241	89	25
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1672	1327	798	1761	957	1121
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.08	0.24	0.23	0.06	0.10

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 64.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	235	328	271	409	727	379
Act Effect Green (s)	9.1	27.8	14.7	49.1	30.3	44.0
Actuated g/C Ratio	0.14	0.42	0.22	0.73	0.45	0.66
v/c Ratio	0.51	0.42	0.66	0.33	0.91	0.32
Control Delay	31.8	15.2	32.2	1.7	37.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	15.2	32.2	1.7	37.2	1.6
LOS	C	B	C	A	D	A
Approach Delay		22.1	13.9		25.0	
Approach LOS		C	B		C	
Queue Length 50th (ft)	45	90	101	10	255	0
Queue Length 95th (ft)	88	145	178	35	#612	32
Internal Link Dist (ft)		587	765		79	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1296	1814	1125	1240	802	1457
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.18	0.24	0.33	0.91	0.26

**Intersection Summary**

Cycle Length: 107.7  
 Actuated Cycle Length: 66.9  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 21.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 66.9%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	113	963	29	413	184	155	36	326	180
Act Effect Green (s)	10.5	32.3	6.3	24.2	24.2	14.1	14.1	21.1	21.1
Actuated g/C Ratio	0.12	0.38	0.07	0.28	0.28	0.17	0.17	0.25	0.25
v/c Ratio	0.52	0.73	0.22	0.78	0.34	0.52	0.12	0.75	0.39
Control Delay	48.1	27.1	48.6	40.4	9.1	41.1	3.8	45.9	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	27.1	48.6	40.4	9.1	41.1	3.8	45.9	24.9
LOS	D	C	D	D	A	D	A	D	C
Approach Delay		29.3		31.6		34.1			38.4
Approach LOS		C		C		C			D
Queue Length 50th (ft)	54	223	14	188	13	73	0	151	47
Queue Length 95th (ft)	145	400	54	395	74	166	11	#484	162
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	437	2141	437	1151	1011	664	617	437	461
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.45	0.07	0.36	0.18	0.23	0.06	0.75	0.39

**Intersection Summary**

Cycle Length: 134.7  
 Actuated Cycle Length: 85.3  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 32.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 67.4%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	7	353	313	412	346	186	263	35
Act Effect Green (s)	7.8	20.2	46.9	27.1	46.9	13.8	13.8	9.0
Actuated g/C Ratio	0.10	0.25	0.58	0.33	0.58	0.17	0.17	0.11
v/c Ratio	0.04	0.76	0.31	0.70	0.32	0.62	0.54	0.17
Control Delay	39.2	41.7	6.4	36.9	17.6	44.0	9.5	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	41.7	6.4	36.9	17.6	44.0	9.5	29.9
LOS	D	D	A	D	B	D	A	C
Approach Delay		25.2			28.1	23.8		29.9
Approach LOS		C			C	C		C
Queue Length 50th (ft)	3	161	12	179	75	86	0	10
Queue Length 95th (ft)	15	283	65	#440	276	171	28	36
Internal Link Dist (ft)		1839			446	570		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	591	870	994	591	1070	593	703	579
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.41	0.31	0.70	0.32	0.31	0.37	0.06

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 81.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 26.1

Intersection LOS: C

Intersection Capacity Utilization 56.2%

ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	462	63	63	562	108	190
Act Effect Green (s)	19.4	30.5	8.5	32.6	10.3	24.3
Actuated g/C Ratio	0.33	0.52	0.14	0.56	0.18	0.41
v/c Ratio	0.75	0.07	0.25	0.54	0.35	0.25
Control Delay	27.5	2.8	32.6	12.7	31.2	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.5	2.8	32.6	12.7	31.2	3.4
LOS	C	A	C	B	C	A
Approach Delay	24.6			14.7	13.5	
Approach LOS	C			B	B	
Queue Length 50th (ft)	103	0	15	72	26	0
Queue Length 95th (ft)	399	19	87	396	129	30
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1688	1323	868	1784	1042	1246
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.05	0.07	0.32	0.10	0.15

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 58.7	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	425	266	410	627	237	260
Act Effect Green (s)	13.2	37.0	19.5	37.4	13.5	27.4
Actuated g/C Ratio	0.22	0.62	0.33	0.63	0.23	0.46
v/c Ratio	0.56	0.23	0.68	0.61	0.59	0.30
Control Delay	25.7	6.1	24.9	8.6	29.3	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	6.1	24.9	8.6	29.3	2.4
LOS	C	A	C	A	C	A
Approach Delay		18.2	15.0		15.2	
Approach LOS		B	B		B	
Queue Length 50th (ft)	66	34	118	86	72	0
Queue Length 95th (ft)	149	87	271	214	180	33
Internal Link Dist (ft)		587	765		88	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1526	1792	1325	1446	944	1154
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.15	0.31	0.43	0.25	0.23

**Intersection Summary**

Cycle Length: 107.7

Actuated Cycle Length: 59.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 16.1

Intersection LOS: B

Intersection Capacity Utilization 54.0%

ICU Level of Service A

Analysis Period (min) 15



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	130	388	12	792	273	141	9	114	126
Act Effect Green (s)	12.1	64.7	5.4	51.0	51.0	14.4	14.4	11.2	11.2
Actuated g/C Ratio	0.12	0.62	0.05	0.49	0.49	0.14	0.14	0.11	0.11
v/c Ratio	0.63	0.18	0.13	0.86	0.33	0.57	0.03	0.60	0.46
Control Delay	59.7	10.5	56.8	37.7	12.9	51.9	0.2	59.7	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	10.5	56.8	37.7	12.9	51.9	0.2	59.7	17.7
LOS	E	B	E	D	B	D	A	E	B
Approach Delay		22.9		31.6		48.8			37.6
Approach LOS		C		C		D			D
Queue Length 50th (ft)	80	44	7	421	54	87	0	70	9
Queue Length 95th (ft)	172	132	32	#1032	176	167	0	155	71
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	348	2164	348	916	818	529	510	348	407
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.18	0.03	0.86	0.33	0.27	0.02	0.33	0.31

**Intersection Summary**

Cycle Length: 134.7

Actuated Cycle Length: 103.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 31.3

Intersection LOS: C

Intersection Capacity Utilization 69.3%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	20	420	78	85	325	62	82	32
Act Effect Green (s)	7.4	26.8	34.3	8.9	34.3	9.9	9.9	9.3
Actuated g/C Ratio	0.13	0.48	0.62	0.16	0.62	0.18	0.18	0.17
v/c Ratio	0.09	0.47	0.08	0.30	0.29	0.20	0.24	0.11
Control Delay	31.8	20.6	7.7	32.2	15.3	27.8	10.0	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	20.6	7.7	32.2	15.3	27.8	10.0	23.4
LOS	C	C	A	C	B	C	A	C
Approach Delay		19.1			18.8	17.7		23.4
Approach LOS		B			B	B		C
Queue Length 50th (ft)	5	76	1	19	26	14	0	5
Queue Length 95th (ft)	35	383	44	108	302	74	40	40
Internal Link Dist (ft)		1839			446	494		188
Turn Bay Length (ft)	55		150	160			310	
Base Capacity (vph)	991	1371	1181	991	1358	994	903	964
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.31	0.07	0.09	0.24	0.06	0.09	0.03

**Intersection Summary**

Cycle Length: 125.1

Actuated Cycle Length: 55.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 18.9

Intersection LOS: B

Intersection Capacity Utilization 44.5%

ICU Level of Service A

Analysis Period (min) 15

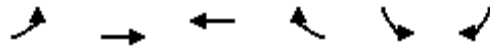


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	475	107	188	429	60	115
Act Effect Green (s)	22.6	33.1	12.9	40.2	9.7	28.1
Actuated g/C Ratio	0.34	0.50	0.20	0.61	0.15	0.43
v/c Ratio	0.74	0.13	0.54	0.38	0.23	0.16
Control Delay	29.1	3.2	34.9	8.7	36.8	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	3.2	34.9	8.7	36.8	3.7
LOS	C	A	C	A	D	A
Approach Delay	24.3			16.7	15.0	
Approach LOS	C			B	B	
Queue Length 50th (ft)	124	0	53	50	17	0
Queue Length 95th (ft)	464	30	220	258	93	26
Internal Link Dist (ft)	884			1059	1395	
Turn Bay Length (ft)		400	400			190
Base Capacity (vph)	1667	1328	781	1753	937	1101
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.08	0.24	0.24	0.06	0.10

**Intersection Summary**

Cycle Length: 159	
Actuated Cycle Length: 65.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 51.8%	ICU Level of Service A
Analysis Period (min) 15	





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	242	342	285	409	727	387
Act Effect Green (s)	9.2	28.4	15.1	49.6	30.3	44.2
Actuated g/C Ratio	0.14	0.42	0.22	0.73	0.45	0.65
v/c Ratio	0.52	0.44	0.68	0.33	0.92	0.33
Control Delay	32.1	15.3	32.9	1.8	38.8	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	15.3	32.9	1.8	38.8	1.6
LOS	C	B	C	A	D	A
Approach Delay		22.3	14.6		25.9	
Approach LOS		C	B		C	
Queue Length 50th (ft)	47	95	107	11	262	0
Queue Length 95th (ft)	91	152	188	37	#614	32
Internal Link Dist (ft)		587	765		79	
Turn Bay Length (ft)	130			160		
Base Capacity (vph)	1284	1809	1114	1237	794	1450
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.19	0.26	0.33	0.92	0.27

**Intersection Summary**

Cycle Length: 107.7

Actuated Cycle Length: 67.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 21.7

Intersection LOS: C

Intersection Capacity Utilization 67.8%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	121	969	29	420	184	155	36	326	187
Act Effect Green (s)	11.0	33.3	6.3	24.6	24.6	14.1	14.1	21.1	21.1
Actuated g/C Ratio	0.13	0.39	0.07	0.29	0.29	0.16	0.16	0.24	0.24
v/c Ratio	0.54	0.72	0.22	0.79	0.34	0.53	0.12	0.75	0.41
Control Delay	48.6	26.8	49.4	41.0	9.4	41.9	3.8	47.0	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	26.8	49.4	41.0	9.4	41.9	3.8	47.0	25.2
LOS	D	C	D	D	A	D	A	D	C
Approach Delay		29.2		32.2		34.7			39.1
Approach LOS		C		C		C			D
Queue Length 50th (ft)	58	226	14	194	14	74	0	152	49
Queue Length 95th (ft)	154	403	55	406	76	170	11	#495	169
Internal Link Dist (ft)		636		910		807			1084
Turn Bay Length (ft)	180		100		170		90	400	
Base Capacity (vph)	432	2123	432	1138	1001	657	612	432	459
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.46	0.07	0.37	0.18	0.24	0.06	0.75	0.41

**Intersection Summary**

Cycle Length: 134.7

Actuated Cycle Length: 86.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 32.5

Intersection LOS: C

Intersection Capacity Utilization 67.5%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Appendix J:

*Bicycle and Pedestrian Analysis*

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	8.7
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	476	417
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.57	0.60
Prob of Blocked Lane	0.57	0.60
Delay for adq Gap	6.47	8.30
Avg Ped Delay (s)	3.70	4.96

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	9.1
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	417	476
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.53	0.65
Prob of Blocked Lane	0.53	0.65
Delay for adq Gap	5.94	9.21
Avg Ped Delay (s)	3.12	5.95

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.8	37.2	25.0
Crosswalk Width (ft)	55.0	55.0	65.0	55.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	4	0	2	0
Ped. Right-Left Flow Rate (p/h)	4	0	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	6035.9	0.0	18185.9	9073.4
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.1	0.0
Crosswalk Circulation Code	F	-	F	-
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.45	2.40	2.33	1.77
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	1	0	0
Total Flow Rate (veh/h)	675	728	449	40
Effct. Green for Bike (s)	20.4	47.0	14.4	9.0
Cross Street Width (ft)	37.2	25.0	36.8	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	3.0	2.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	326	752	230	144
Bicycle Delay (s/bike)	43.8	24.3	48.9	53.8
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.60	2.71	2.86	2.36
Bicycle LOS	B	B	C	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.36	2.40	2.12
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	1	0	0
Total Flow Rate (veh/h)	546	630	334
Effct. Green for Bike (s)	20.7	34.4	10.8
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	260	433	136
Bicycle Delay (s/bike)	60.2	48.8	69.1
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.30	1.61	2.66
Bicycle LOS	A	A	B



Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.7	50.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	4	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.48	2.38	2.46
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	1
Total Flow Rate (veh/h)	685	859	446
Effct. Green for Bike (s)	35.1	18.7	11.1
Cross Street Width (ft)	58.7	50.1	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	650	346	206
Bicycle Delay (s/bike)	24.6	36.9	43.5
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	3.16	3.74	1.96
Bicycle LOS	C	D	A

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	73.2	48.1	63.9
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	6	3	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	8	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	1
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	36407.8	0.0	36407.8
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.1
Crosswalk Circulation Code	-	-	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.51	2.84	2.13	2.66
Pedestrian Crosswalk LOS	B	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	531	1416	288	707
Effct. Green for Bike (s)	61.1	49.9	16.0	19.6
Cross Street Width (ft)	48.1	63.9	73.2	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	905	739	237	290
Bicycle Delay (s/bike)	20.2	26.8	52.4	49.3
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.73	4.87	3.15	3.46
Bicycle LOS	B	E	C	C

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	7.5
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	477	337
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.57	0.52
Prob of Blocked Lane	0.57	0.52
Delay for adq Gap	6.48	7.20
Avg Ped Delay (s)	3.71	3.75

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	8.4
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	337	477
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.45	0.65
Prob of Blocked Lane	0.45	0.65
Delay for adq Gap	5.28	9.23
Avg Ped Delay (s)	2.39	5.97

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.8	37.2	25.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	2	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	1	0	3
Ped. Right-Left Flow Rate (p/h)	2	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	18185.9	9073.4	36410.9	7250.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	F	F	-	F
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.39	2.27	2.07	1.78
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	553	420	141	43
Effct. Green for Bike (s)	28.3	35.4	10.1	9.4
Cross Street Width (ft)	37.2	25.0	36.8	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	453	566	162	150
Bicycle Delay (s/bike)	37.4	32.1	52.8	53.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.04	2.64	2.36	2.37
Bicycle LOS	C	B	B	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.32	2.37	2.14
Pedestrian Crosswalk LOS	B	B	B



Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	3	0	0
Total Flow Rate (veh/h)	585	638	206
Effct. Green for Bike (s)	22.7	41.8	9.8
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	286	526	123
Bicycle Delay (s/bike)	58.5	43.2	70.0
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.36	1.63	2.45
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.6	51.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.48	2.43	2.51
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	630	511	1021
Effct. Green for Bike (s)	34.4	18.6	30.4
Cross Street Width (ft)	58.6	51.1	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	637	344	563
Bicycle Delay (s/bike)	25.1	37.0	27.9
Bicycle Compliance	Fair	Poor	Fair
Bicycle LOS Score	3.07	3.18	2.91
Bicycle LOS	C	C	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	73.2	48.1	63.9
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	6	3	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	0	1
Ped. Right-Left Flow Rate (p/h)	0	1	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	18182.8	36407.8	36407.8
Right Corner Quality of Service	-	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	-	F	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.58	2.91	2.19	2.72
Pedestrian Crosswalk LOS	B	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1051	1070	314	1099
Effct. Green for Bike (s)	40.0	30.6	16.2	21.1
Cross Street Width (ft)	48.1	63.9	73.2	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	593	453	240	313
Bicycle Delay (s/bike)	33.4	40.4	52.3	48.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.16	4.30	3.20	4.11
Bicycle LOS	C	E	C	D

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	8.8
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	481	422
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.58	0.60
Prob of Blocked Lane	0.58	0.60
Delay for adq Gap	6.51	8.37
Avg Ped Delay (s)	3.75	5.04

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	9.2
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	422	481
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.53	0.65
Prob of Blocked Lane	0.53	0.65
Delay for adq Gap	5.98	9.30
Avg Ped Delay (s)	3.16	6.04

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	36.5	38.0	25.0
Crosswalk Width (ft)	55.0	55.0	65.0	55.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	4	0	2	0
Ped. Right-Left Flow Rate (p/h)	4	0	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	6035.9	0.0	18185.9	9073.4
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.1	0.0
Crosswalk Circulation Code	F	-	F	-
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.46	2.41	2.35	1.77
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	1	0	0
Total Flow Rate (veh/h)	681	746	475	40
Effct. Green for Bike (s)	20.5	47.0	14.6	9.0
Cross Street Width (ft)	38.0	25.0	36.5	48.1
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	3.0	2.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	328	752	234	144
Bicycle Delay (s/bike)	43.7	24.3	48.8	53.8
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.62	2.74	2.90	2.36
Bicycle LOS	B	B	C	B



Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.38	2.41	2.13
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	1	0	0
Total Flow Rate (veh/h)	563	644	337
Effct. Green for Bike (s)	21.5	35.4	11.1
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	270	445	140
Bicycle Delay (s/bike)	59.5	48.0	68.8
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.33	1.64	2.67
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.7	50.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	4	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.39	2.46
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	1
Total Flow Rate (veh/h)	700	867	450
Effct. Green for Bike (s)	35.7	19.1	11.1
Cross Street Width (ft)	58.7	50.1	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	661	354	206
Bicycle Delay (s/bike)	24.2	36.6	43.5
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	3.18	3.76	1.96
Bicycle LOS	C	D	A

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	73.2	48.1	63.9
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	6	3	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	8	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	1
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	36407.8	0.0	36407.8
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.1
Crosswalk Circulation Code	-	-	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.52	2.84	2.13	2.66
Pedestrian Crosswalk LOS	B	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	541	1420	288	711
Effct. Green for Bike (s)	61.8	50.3	16.1	19.6
Cross Street Width (ft)	48.1	63.9	73.2	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	916	745	239	290
Bicycle Delay (s/bike)	19.8	26.6	52.4	49.3
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.74	4.88	3.15	3.47
Bicycle LOS	B	E	C	C

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	7.6
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	484	344
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.58	0.53
Prob of Blocked Lane	0.58	0.53
Delay for adq Gap	6.54	7.29
Avg Ped Delay (s)	3.79	3.85

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	8.5
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	344	484
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.46	0.65
Prob of Blocked Lane	0.46	0.65
Delay for adq Gap	5.34	9.34
Avg Ped Delay (s)	2.45	6.10

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.4	38.5	25.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	2	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	1	0	3
Ped. Right-Left Flow Rate (p/h)	2	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	18185.9	9073.4	36410.9	7250.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	F	F	-	F
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.39	2.29	2.09	1.78
Pedestrian Crosswalk LOS	B	B	B	A



Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	561	443	173	43
Effct. Green for Bike (s)	25.4	33.4	10.0	9.0
Cross Street Width (ft)	38.5	25.0	36.4	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	406	534	160	144
Bicycle Delay (s/bike)	39.7	33.6	52.9	53.8
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.07	2.67	2.40	2.37
Bicycle LOS	C	B	B	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.34	2.39	2.14
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	3	0	0
Total Flow Rate (veh/h)	610	660	208
Effct. Green for Bike (s)	24.0	43.3	9.9
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	302	545	125
Bicycle Delay (s/bike)	57.4	42.1	69.9
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.40	1.66	2.45
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.6	51.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.44	2.52
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	652	525	1029
Effct. Green for Bike (s)	35.5	19.4	30.4
Cross Street Width (ft)	58.6	51.1	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	657	359	563
Bicycle Delay (s/bike)	24.3	36.3	27.9
Bicycle Compliance	Fair	Poor	Fair
Bicycle LOS Score	3.10	3.21	2.92
Bicycle LOS	C	C	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	73.2	48.1	63.9
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	6	3	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	0	1
Ped. Right-Left Flow Rate (p/h)	0	1	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	18182.8	36407.8	36407.8
Right Corner Quality of Service	-	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	-	F	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.59	2.91	2.19	2.72
Pedestrian Crosswalk LOS	B	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1065	1077	314	1106
Effct. Green for Bike (s)	41.1	31.1	16.3	21.0
Cross Street Width (ft)	48.1	63.9	73.2	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	609	461	241	311
Bicycle Delay (s/bike)	32.7	40.0	52.2	48.1
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.17	4.31	3.20	4.12
Bicycle LOS	C	E	C	D

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	6.8
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	410	338
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.52	0.52
Prob of Blocked Lane	0.52	0.52
Delay for adq Gap	5.88	7.21
Avg Ped Delay (s)	3.05	3.76

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	7.2
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	338	410
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.45	0.59
Prob of Blocked Lane	0.45	0.59
Delay for adq Gap	5.29	8.20
Avg Ped Delay (s)	2.40	4.85



Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.8	37.2	25.0
Crosswalk Width (ft)	55.0	55.0	65.0	55.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	4	0	2	0
Ped. Right-Left Flow Rate (p/h)	4	0	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	6035.9	0.0	18185.9	9073.4
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.1	0.0
Crosswalk Circulation Code	F	-	F	-
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.44	2.41	2.33	1.76
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	1	0	0
Total Flow Rate (veh/h)	666	752	403	32
Effct. Green for Bike (s)	20.1	46.8	12.9	8.9
Cross Street Width (ft)	37.2	25.0	36.8	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	3.0	2.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	322	749	206	142
Bicycle Delay (s/bike)	44.0	24.5	50.3	53.9
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.58	2.75	2.79	2.35
Bicycle LOS	B	C	C	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.35	2.38	2.09
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	1	0	0
Total Flow Rate (veh/h)	505	620	281
Effct. Green for Bike (s)	18.9	34.8	10.4
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	238	438	131
Bicycle Delay (s/bike)	61.8	48.5	69.4
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.23	1.60	2.57
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.1	58.6	50.9
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.45	2.45	2.51
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	1
Total Flow Rate (veh/h)	639	1028	478
Effct. Green for Bike (s)	35.8	19.0	13.3
Cross Street Width (ft)	58.6	50.9	48.1
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	663	352	246
Bicycle Delay (s/bike)	24.1	36.7	41.5
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	3.08	4.03	2.01
Bicycle LOS	C	D	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	8	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	1
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	36407.8	0.0	36407.8
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.1
Crosswalk Circulation Code	-	-	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.51	2.60	2.03	2.14
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	473	973	130	216
Effct. Green for Bike (s)	64.3	51.0	13.6	9.9
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	953	756	201	147
Bicycle Delay (s/bike)	18.5	26.1	54.6	58.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.69	3.74	2.71	2.65
Bicycle LOS	B	D	B	B



**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	6.2
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	419	288
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.53	0.47
Prob of Blocked Lane	0.53	0.47
Delay for adq Gap	5.95	6.60
Avg Ped Delay (s)	3.14	3.08

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	7.0
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	288	419
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.40	0.60
Prob of Blocked Lane	0.40	0.60
Delay for adq Gap	4.92	8.33
Avg Ped Delay (s)	1.98	4.99

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.8	37.2	25.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	2	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	1	0	3
Ped. Right-Left Flow Rate (p/h)	2	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	18185.9	9073.4	36410.9	7250.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	F	F	-	F
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.35	2.23	2.02	1.76
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	469	355	86	22
Effct. Green for Bike (s)	27.8	29.0	9.6	9.4
Cross Street Width (ft)	37.2	25.0	36.8	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	445	464	154	150
Bicycle Delay (s/bike)	37.8	36.9	53.3	53.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.90	2.53	2.26	2.33
Bicycle LOS	C	B	B	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.27	2.32	2.10
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	3	0	0
Total Flow Rate (veh/h)	514	543	145
Effct. Green for Bike (s)	20.4	39.5	9.9
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	257	497	125
Bicycle Delay (s/bike)	60.5	44.9	69.9
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.24	1.47	2.35
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.6	51.2
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.41	2.49	2.54
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	521	637	1027
Effct. Green for Bike (s)	26.5	13.9	30.3
Cross Street Width (ft)	58.6	51.2	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	491	257	561
Bicycle Delay (s/bike)	30.8	41.0	28.0
Bicycle Compliance	Poor	Poor	Fair
Bicycle LOS Score	2.89	3.39	2.92
Bicycle LOS	C	C	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	0	1
Ped. Right-Left Flow Rate (p/h)	0	1	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	18182.8	36407.8	36407.8
Right Corner Quality of Service	-	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	-	F	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.54	2.62	2.09	2.17
Pedestrian Crosswalk LOS	B	B	B	B



Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	991	524	159	381
Effct. Green for Bike (s)	29.5	22.4	13.1	15.3
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	437	332	194	227
Bicycle Delay (s/bike)	41.2	47.0	55.0	53.1
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.11	3.00	2.75	2.92
Bicycle LOS	C	C	C	C

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	6.9
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	415	343
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.52	0.53
Prob of Blocked Lane	0.52	0.53
Delay for adq Gap	5.92	7.28
Avg Ped Delay (s)	3.10	3.84

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	7.4
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	343	415
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.46	0.60
Prob of Blocked Lane	0.46	0.60
Delay for adq Gap	5.33	8.27
Avg Ped Delay (s)	2.44	4.93

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	49.7	36.1	37.4	25.0
Crosswalk Width (ft)	55.0	55.0	65.0	55.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	4	0	2	0
Ped. Right-Left Flow Rate (p/h)	4	0	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	6035.9	0.0	18185.9	9073.4
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.1	0.0
Crosswalk Circulation Code	F	-	F	-
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.44	2.42	2.35	1.76
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	1	0	0
Total Flow Rate (veh/h)	673	772	431	32
Effct. Green for Bike (s)	20.2	46.8	13.2	8.9
Cross Street Width (ft)	37.4	25.0	36.1	49.7
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	3.0	2.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	323	749	211	142
Bicycle Delay (s/bike)	44.0	24.5	50.0	53.9
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.60	2.79	2.82	2.37
Bicycle LOS	B	C	C	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.36	2.39	2.09
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	1	0	0
Total Flow Rate (veh/h)	522	634	283
Effct. Green for Bike (s)	19.6	35.6	10.5
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	247	448	132
Bicycle Delay (s/bike)	61.1	47.9	69.3
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.26	1.62	2.58
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.6	51.2
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.46	2.45	2.52
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	1
Total Flow Rate (veh/h)	654	1037	483
Effct. Green for Bike (s)	36.3	19.3	13.4
Cross Street Width (ft)	58.6	51.2	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	672	357	248
Bicycle Delay (s/bike)	23.8	36.4	41.5
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	3.11	4.05	2.02
Bicycle LOS	C	D	B



Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	8	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	1
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	36407.8	0.0	36407.8
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.1
Crosswalk Circulation Code	-	-	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.52	2.60	2.03	2.15
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	483	977	130	220
Effct. Green for Bike (s)	64.6	51.0	13.6	9.9
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	957	756	201	147
Bicycle Delay (s/bike)	18.4	26.1	54.6	58.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.69	3.75	2.71	2.66
Bicycle LOS	B	D	B	B

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	6.4
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	426	295
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.53	0.47
Prob of Blocked Lane	0.53	0.47
Delay for adq Gap	6.01	6.68
Avg Ped Delay (s)	3.20	3.17

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	7.1
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	295	426
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.41	0.61
Prob of Blocked Lane	0.41	0.61
Delay for adq Gap	4.97	8.43
Avg Ped Delay (s)	2.03	5.11

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.5	36.4	39.5	25.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	2	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	1	0	3
Ped. Right-Left Flow Rate (p/h)	2	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	18185.9	9073.4	36410.9	7250.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	F	F	-	F
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.35	2.25	2.04	1.76
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	476	378	118	22
Effct. Green for Bike (s)	25.9	30.1	9.7	9.5
Cross Street Width (ft)	39.5	25.0	36.4	48.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	414	482	155	152
Bicycle Delay (s/bike)	39.3	36.0	53.2	53.4
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.95	2.57	2.31	2.34
Bicycle LOS	C	B	B	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.29	2.33	2.10
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	3	0	0
Total Flow Rate (veh/h)	539	564	147
Effct. Green for Bike (s)	21.4	40.7	10.0
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	269	512	126
Bicycle Delay (s/bike)	59.6	44.0	69.8
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.29	1.50	2.35
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.7	50.7
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.42	2.50	2.55
Pedestrian Crosswalk LOS	B	B	B



Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	543	651	1034
Effct. Green for Bike (s)	27.1	14.4	30.3
Cross Street Width (ft)	58.7	50.7	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	502	267	561
Bicycle Delay (s/bike)	30.3	40.6	28.0
Bicycle Compliance	Poor	Poor	Fair
Bicycle LOS Score	2.92	3.41	2.93
Bicycle LOS	C	C	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	0	1
Ped. Right-Left Flow Rate (p/h)	0	1	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	18182.8	36407.8	36407.8
Right Corner Quality of Service	-	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	-	F	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.55	2.63	2.09	2.18
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1004	530	159	388
Effct. Green for Bike (s)	30.2	22.8	13.2	15.4
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	447	338	196	228
Bicycle Delay (s/bike)	40.7	46.6	54.9	53.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.12	3.01	2.75	2.94
Bicycle LOS	C	C	C	C

**Approach**

Approach Direction	EB	
Median Present?	Yes	
Approach Delay(s)	7.6	
Level of Service	B	

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	437	371
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.54	0.56
Prob of Blocked Lane	0.54	0.56
Delay for adq Gap	6.11	7.65
Avg Ped Delay (s)	3.31	4.25

**Approach**

Approach Direction	WB	
Median Present?	Yes	
Approach Delay(s)	8.0	
Level of Service	B	

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	371	437
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.48	0.61
Prob of Blocked Lane	0.48	0.61
Delay for adq Gap	5.55	8.60
Avg Ped Delay (s)	2.69	5.29

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.8	37.2	25.0
Crosswalk Width (ft)	55.0	55.0	65.0	55.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	4	0	2	0
Ped. Right-Left Flow Rate (p/h)	4	0	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	6035.9	0.0	18185.9	9073.4
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.1	0.0
Crosswalk Circulation Code	F	-	F	-
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.44	2.40	2.33	1.77
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	1	0	0
Total Flow Rate (veh/h)	667	739	423	35
Effct. Green for Bike (s)	20.1	46.8	13.5	9.0
Cross Street Width (ft)	37.2	25.0	36.8	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	3.0	2.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	322	749	216	144
Bicycle Delay (s/bike)	44.0	24.5	49.7	53.8
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.59	2.73	2.82	2.35
Bicycle LOS	B	B	C	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.34	2.38	2.10
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	1	0	0
Total Flow Rate (veh/h)	508	611	296
Effct. Green for Bike (s)	18.6	31.8	10.2
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	234	400	128
Bicycle Delay (s/bike)	62.0	50.9	69.6
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.23	1.58	2.60
Bicycle LOS	A	A	B



Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.6	50.4
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.47	2.45	2.52
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	1
Total Flow Rate (veh/h)	677	1028	492
Effct. Green for Bike (s)	36.4	19.1	13.4
Cross Street Width (ft)	58.6	50.4	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	674	354	248
Bicycle Delay (s/bike)	23.7	36.6	41.5
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	3.14	4.03	2.03
Bicycle LOS	C	D	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	8	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	1
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	36407.8	0.0	36407.8
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.1
Crosswalk Circulation Code	-	-	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.53	2.62	2.04	2.18
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	508	1073	150	236
Effct. Green for Bike (s)	64.4	51.1	14.4	11.2
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	954	757	213	166
Bicycle Delay (s/bike)	18.5	26.1	53.9	56.8
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.71	3.90	2.74	2.68
Bicycle LOS	B	D	B	B

Approach	
Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	6.7
Level of Service	B

Crosswalk		
Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	443	308
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.55	0.49
Prob of Blocked Lane	0.55	0.49
Delay for adq Gap	6.16	6.84
Avg Ped Delay (s)	3.37	3.35

Approach	
Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	7.5
Level of Service	B

Crosswalk		
Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	308	443
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.42	0.62
Prob of Blocked Lane	0.42	0.62
Delay for adq Gap	5.06	8.69
Avg Ped Delay (s)	2.14	5.39

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.8	37.2	25.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	2	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	1	0	3
Ped. Right-Left Flow Rate (p/h)	2	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	18185.9	9073.4	36410.9	7250.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	F	F	-	F
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.37	2.25	2.04	1.77
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	511	386	111	32
Effct. Green for Bike (s)	27.4	31.4	9.8	9.4
Cross Street Width (ft)	37.2	25.0	36.8	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	438	502	157	150
Bicycle Delay (s/bike)	38.1	35.0	53.1	53.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.97	2.58	2.31	2.35
Bicycle LOS	C	B	B	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.30	2.35	2.12
Pedestrian Crosswalk LOS	B	B	B



Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	3	0	0
Total Flow Rate (veh/h)	556	596	173
Effct. Green for Bike (s)	21.4	38.7	9.6
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	269	487	121
Bicycle Delay (s/bike)	59.6	45.5	70.2
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.31	1.56	2.40
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.7	50.4
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.44	2.52	2.57
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	563	680	1106
Effct. Green for Bike (s)	27.8	14.7	30.3
Cross Street Width (ft)	58.7	50.4	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	515	272	561
Bicycle Delay (s/bike)	29.8	40.3	28.0
Bicycle Compliance	Fair	Poor	Fair
Bicycle LOS Score	2.96	3.45	3.05
Bicycle LOS	C	C	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	0	1
Ped. Right-Left Flow Rate (p/h)	0	1	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	18182.8	36407.8	36407.8
Right Corner Quality of Service	-	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	-	F	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.58	2.68	2.11	2.24
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1076	626	191	506
Effct. Green for Bike (s)	32.3	24.2	14.1	21.1
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	479	359	209	313
Bicycle Delay (s/bike)	39.1	45.5	54.1	48.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.18	3.17	2.81	3.13
Bicycle LOS	C	C	C	C

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	7.7
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	442	376
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.55	0.56
Prob of Blocked Lane	0.55	0.56
Delay for adq Gap	6.16	7.72
Avg Ped Delay (s)	3.36	4.32

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	8.1
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	376	442
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.49	0.62
Prob of Blocked Lane	0.49	0.62
Delay for adq Gap	5.59	8.68
Avg Ped Delay (s)	2.73	5.37

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.5	36.4	39.5	25.0
Crosswalk Width (ft)	55.0	55.0	65.0	55.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	4	0	2	0
Ped. Right-Left Flow Rate (p/h)	4	0	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	6035.9	0.0	18185.9	9073.4
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.1	0.0
Crosswalk Circulation Code	F	-	F	-
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.45	2.42	2.35	1.77
Pedestrian Crosswalk LOS	B	B	B	A

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	1	0	0
Total Flow Rate (veh/h)	673	758	449	35
Effct. Green for Bike (s)	20.2	46.9	13.8	9.0
Cross Street Width (ft)	39.5	25.0	36.4	48.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	3.0	2.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	323	750	221	144
Bicycle Delay (s/bike)	44.0	24.4	49.5	53.8
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.63	2.76	2.86	2.36
Bicycle LOS	B	C	C	B



Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.36	2.39	2.11
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	1	0	0
Total Flow Rate (veh/h)	525	625	298
Effct. Green for Bike (s)	19.4	32.6	10.3
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	244	410	130
Bicycle Delay (s/bike)	61.3	50.2	69.5
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.26	1.61	2.60
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.6	50.4
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.47	2.46	2.53
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	1
Total Flow Rate (veh/h)	691	1037	497
Effct. Green for Bike (s)	37.0	19.5	13.5
Cross Street Width (ft)	58.6	50.4	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	685	361	250
Bicycle Delay (s/bike)	23.3	36.3	41.4
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	3.17	4.04	2.04
Bicycle LOS	C	D	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	8	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	1
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	36407.8	0.0	36407.8
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.1
Crosswalk Circulation Code	-	-	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.53	2.63	2.04	2.19
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	518	1077	150	240
Effct. Green for Bike (s)	64.7	51.0	14.4	11.2
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	959	756	213	166
Bicycle Delay (s/bike)	18.3	26.1	53.9	56.8
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.72	3.91	2.74	2.69
Bicycle LOS	B	D	B	B

**Approach**

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	6.9
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	450	315
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.55	0.50
Prob of Blocked Lane	0.55	0.50
Delay for adq Gap	6.23	6.92
Avg Ped Delay (s)	3.44	3.44

**Approach**

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	7.7
Level of Service	B

**Crosswalk**

Length (ft)	12	17
Lanes Crossed	1	1
Veh Vol Crossed	315	450
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	7.86
Prob of Delayed X-ing	0.43	0.63
Prob of Blocked Lane	0.43	0.63
Delay for adq Gap	5.12	8.80
Avg Ped Delay (s)	2.20	5.50

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.2	36.3	38.5	25.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	3	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	1	2	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	1	0	3
Ped. Right-Left Flow Rate (p/h)	2	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	18185.9	9073.4	36410.9	7250.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	F	F	-	F
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.37	2.27	2.06	1.77
Pedestrian Crosswalk LOS	B	B	B	A



Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	518	410	144	32
Effct. Green for Bike (s)	26.8	34.3	9.9	9.3
Cross Street Width (ft)	38.5	25.0	36.3	48.2
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	429	549	158	149
Bicycle Delay (s/bike)	38.6	32.9	53.0	53.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.00	2.62	2.35	2.35
Bicycle LOS	C	B	B	B

Approach	EB	WB	NB
Crosswalk Length (ft)	47.7	36.0	36.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	3
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	8	2
Effective Walk Time (s)	11.0	0.0	11.0
Right Corner Size A (ft)	9.0	0.1	9.0
Right Corner Size B (ft)	9.0	0.1	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	0.01	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	68.9	79.5	68.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.32	2.37	2.12
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	3	0	0
Total Flow Rate (veh/h)	582	617	175
Effct. Green for Bike (s)	22.6	40.2	9.7
Cross Street Width (ft)	36.1	47.7	36.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	8.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	284	506	122
Bicycle Delay (s/bike)	58.6	44.4	70.1
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	1.36	1.59	2.40
Bicycle LOS	A	A	B

Approach	EB	WB	SB
Crosswalk Length (ft)	48.0	58.7	50.4
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None Actuated	
Corresponding Signal Phase	6	2	8
Effective Walk Time (s)	10.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	44.5	54.0	54.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.45	2.53	2.58
Pedestrian Crosswalk LOS	B	B	B

Approach	EB	WB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	584	694	1114
Effct. Green for Bike (s)	28.4	15.1	30.3
Cross Street Width (ft)	58.7	50.4	48.0
Through Lanes Number	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	2.0	0.0	5.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	526	280	561
Bicycle Delay (s/bike)	29.3	40.0	28.0
Bicycle Compliance	Fair	Poor	Fair
Bicycle LOS Score	2.99	3.48	3.06
Bicycle LOS	C	C	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	48.1	60.9	48.1	37.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	4	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	0	1
Ped. Right-Left Flow Rate (p/h)	0	1	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	18182.8	36407.8	36407.8
Right Corner Quality of Service	-	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.1	0.0	0.1
Crosswalk Circulation Code	-	F	-	F
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.59	2.68	2.11	2.24
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1090	633	191	513
Effct. Green for Bike (s)	33.3	24.6	14.1	21.1
Cross Street Width (ft)	48.1	37.5	60.9	48.1
Through Lanes Number	2	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	493	364	209	313
Bicycle Delay (s/bike)	38.3	45.1	54.1	48.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.19	3.18	2.81	3.14
Bicycle LOS	C	C	C	C

Appendix K:

*NCHRP Report 684 Worksheet*



NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:		Organization:	Kimley-Horn and Associates, Inc.
Project Location:		Performed By:	
Scenario Description:		Date:	
Analysis Year:		Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office		-	0	0	0	0
Retail		8	ksf	29	14	15
Restaurant		3	ksf	0	0	0
Cinema/Entertainment		-	0	0	0	0
Residential		72	DU	26	15	11
Hotel		-	0	0	0	0
All Other Land Uses <sup>2</sup>		-	0	0	0	0
				55	29	26

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses <sup>2</sup>	1.00	0%	0%	1.00	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	4	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	55	29	26
Internal Capture Percentage	18%	17%	19%
External Vehicle-Trips <sup>5</sup>	45	24	21
External Transit-Trips <sup>6</sup>	0	0	0
External Non-Motorized Trips <sup>6</sup>	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	7%	27%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	27%	9%
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1