

# Memorandum

**To:** Jeremy Sutter, Jeffrey DeMure + Associates  
**From:** Matt Weir, P.E., T.E., PTOE  
**Re:** Supplemental Traffic Analysis – Revised Project Access  
*El Dorado Hills Memory Care Center*  
**Date:** January 11, 2017

Per your request, we have completed this supplemental traffic analysis to document the effect of modified site access on the conclusions documented in the original traffic study completed by our office for the subject project<sup>1</sup>. The modified access, which eliminates access from Green Valley Road and incorporates a right-turn in only driveway along Francisco Drive, is depicted in **Exhibit 1**. This access condition maintains the full access driveway that was originally included along Cambria Way. The modified project’s study intersections<sup>2</sup> are shown in **Exhibit 2**. Using the same trip generation data per the original traffic study, the site generated trips were assigned to the study intersections based on the revised project access conditions. The revised project trip assignment is shown in **Exhibit 3**. Finally, the revised “plus project” traffic volumes for both Existing (2015) and Near-Term (2025) Conditions are depicted in **Exhibit 4** and **Exhibit 5**, respectively.

The intersection Level of Service (LOS) analyses for these revised access conditions were completed in a manner consistent with the original traffic study. Accordingly, the updated LOS results are presented in **Table 1** and **Table 2** below.

**Table 1 – Existing (2015) and Existing (2015) plus Proposed Project Intersection Levels of Service**

#	Intersection	Analysis Scenario <sup>+</sup>	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	Exist.	Signal	43.7	D	29.9	C
		Exist.+PP		43.8	D	31.7	C
2	Francisco Drive @ Cambria Way/Embarcadero Drive	Exist.	SSSC <sup>*</sup>	36.2 (EB)	E	34.5 (EB)	D
		Exist.+PP		36.6 (EB)	E	36.8 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	Exist.	AWSC	<i>See original traffic study</i>			
		Exist.+PP					
4	Green Valley Road @ Project Site Access Driveway	Exist.	<i>Plus Project Analysis Scenarios Only</i>				
		Exist.+PP	SSSC <sup>*</sup>	0.0 (SB)	A	0.0 (SB)	A
5	Cambria Way @ Project Site Access Driveway	Exist.	<i>Plus Project Analysis Scenarios Only</i>				
		Exist.+PP	SSSC <sup>*</sup>	8.7 (SB)	A	8.8 (SB)	A

<sup>+</sup> Exist. = Existing (2015), Exist. + PP = Existing (2015) plus Proposed Project  
<sup>\*</sup> Control delay for worst minor approach (worst minor movement) for SSSC.

## ATTACHMENT T

<sup>1</sup> Traffic Impact Analysis, El Dorado Hills Memory Care Center (WO#22), Kimley-Horn and Associates, Inc., June 5, 2015.  
<sup>2</sup> Please note that Intersection #3 (El Dorado Hills Boulevard @ Francisco Drive) is unaffected by the revised access conditions documented in this memorandum. Accordingly, the results from the original Traffic Impact Analysis are not replicated in this documentation.

**Table 2 – Near-Term (2025) and Near-Term (2025) plus Proposed Project Intersection Levels of Service**

#	Intersection	Analysis Scenario <sup>+</sup>	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	NT	Signal	44.6	D	46.3	D
		NT+PP		44.7	D	49.7	D
2	Francisco Drive @ Cambria Way/Embarcadero Drive	NT	SSSC*	28.1 (EB)	D	43.6 (EB)	E
		NT+PP		27.9 (EB)	D	46.8 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	NT NT+PP	AWSC	<i>See original traffic study</i>			
4	Green Valley Road @ Project Site Access Driveway	NT	<i>Plus Project Analysis Scenarios Only</i>				
		NT+PP	SSSC*	0.0 (SB)	A	0.0 (SB)	A
5	Cambria Way @ Project Site Access Driveway	NT	<i>Plus Project Analysis Scenarios Only</i>				
		NT+PP	SSSC*	8.7 (SB)	A	8.8 (SB)	A

<sup>+</sup> NT = Near-Term (2025), NT + PP = NT (2025) plus Proposed Project  
<sup>\*</sup> Control delay for worst minor approach (worst minor movement) for SSSC.

As indicated in **Table 1** and **Table 2**, the study intersections operate from LOS A to LOS E with the addition of project traffic during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in **Appendix A** and **Appendix B**.

We also completed a planning level assessment of the need for traffic signalization for the un-signalized study intersections under the conditions resulting from the revised project access. 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 3**.

**Table 3 – Traffic Signal Warrant Analysis Results**

#	Intersection	Analysis Scenario			
		Existing (2015)	Existing (2015) plus PP	Near-Term (2025)	Near-Term (2025) plus PP
2	Francisco Dr @ Cambria Wy	No / No	No / No	No / No	No / No
3	El Dorado Hills Blvd @ Francisco Dr	<i>See original traffic study</i>			
4	Cambria Way @ Project Access Dwy		No / No		No / No
5	Green Valley Rd @ Site Access Dwy		No / No		No / No

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

As shown in **Table 3**, the proposed project does not cause the peak-hour signal warrant to be satisfied at any of the study intersections. Detailed results of this analysis are presented in **Appendix C**.

Finally, vehicle queuing for the study intersections was evaluated under the conditions resulting from the revised project access. 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 4**. Analysis sheets that include the anticipated vehicle queues are presented in Appendices A and B. As presented in **Table 4**, the addition of the proposed project adds additional queuing to several of the study locations.

**Table 4 – Intersection Queuing Evaluation Results for Select Locations**

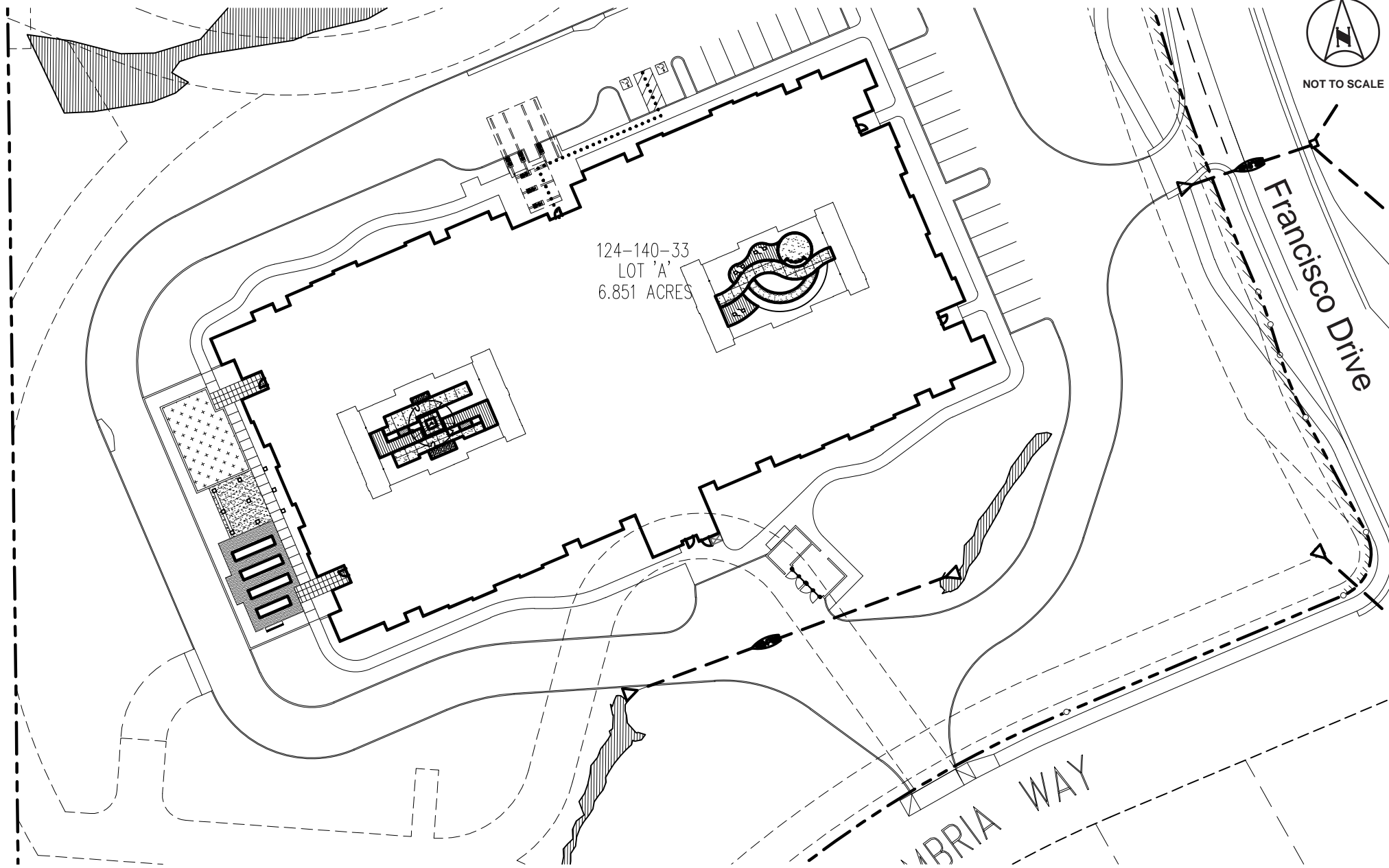
Intersection / Analysis Scenario	Movement	AM Peak-Hour		PM Peak-Hour	
		Available Storage (ft)	95 <sup>th</sup> % Queue (ft)	Available Storage (ft)	95 <sup>th</sup> % Queue (ft)
<b>#1, Green Valley Rd @ Francisco Dr</b>		<b>NB Left</b>			
	Existing (2015)	200 <sup>+</sup>	151	200 <sup>+</sup>	157
	Existing plus Proposed Project (2015)		152		162
	Near-Term (2025)		128		204
	Near-Term plus Proposed Project (2025)		129		207
		<b>WB Left</b>			
	Existing (2015)	200	98	200	259
	Existing plus Proposed Project (2015)		115		261
	Near-Term (2025)		96		269
	Near-Term plus Proposed Project (2025)		100		272
<b>#2, Francisco Dr @ Cambria Way</b>		<b>EB Left</b>			
	Existing (2015)	*	25	*	25
	Existing plus Proposed Project (2015)		25		29
	Near-Term (2025)		25		25
	Near-Term plus Proposed Project (2025)		25		36
<b>#3, Francisco Dr @ El Dorado Hills Blvd</b>		<b>NB Left</b>			
	Existing (2015)	<i>See original traffic study</i>			
	Existing plus PP (2015)				
	Near-Term (2025)				
	Near-Term plus PP (2025)				
<b>#4, Francisco Dr @ Site Dwy</b>		<b>SB</b>			
	Existing (2015)	*		*	
	Existing plus PP (2015)		0		0
	Near-Term (2025)				
	Near-Term plus PP (2025)		0		0
<b>#5, Cambria Wy @ Site Dwy</b>		<b>SB</b>			
	Existing (2015)	*		*	
	Existing plus PP (2015)		0		25
	Near-Term (2025)				
	Near-Term plus PP (2025)		0		25

Source: *Highway Capacity Manual (HCM) 2010* methodology per Synchro<sup>®</sup> v9.  
 \* Intersection approach with available storage length equal to segment length; + Dual left-turn lane; \*\* Source: Per Page 9-127, *A Policy on Geometric Design of Highways and Streets*, AASHTO, 2011. ((Peak-Hour Volume/30 min)\*25 feet)

In conclusion, based on the analyses documented in this memorandum, the revised project access does not result in any significant environmental impacts to transportation facilities as defined by the County.

**Attachments:**

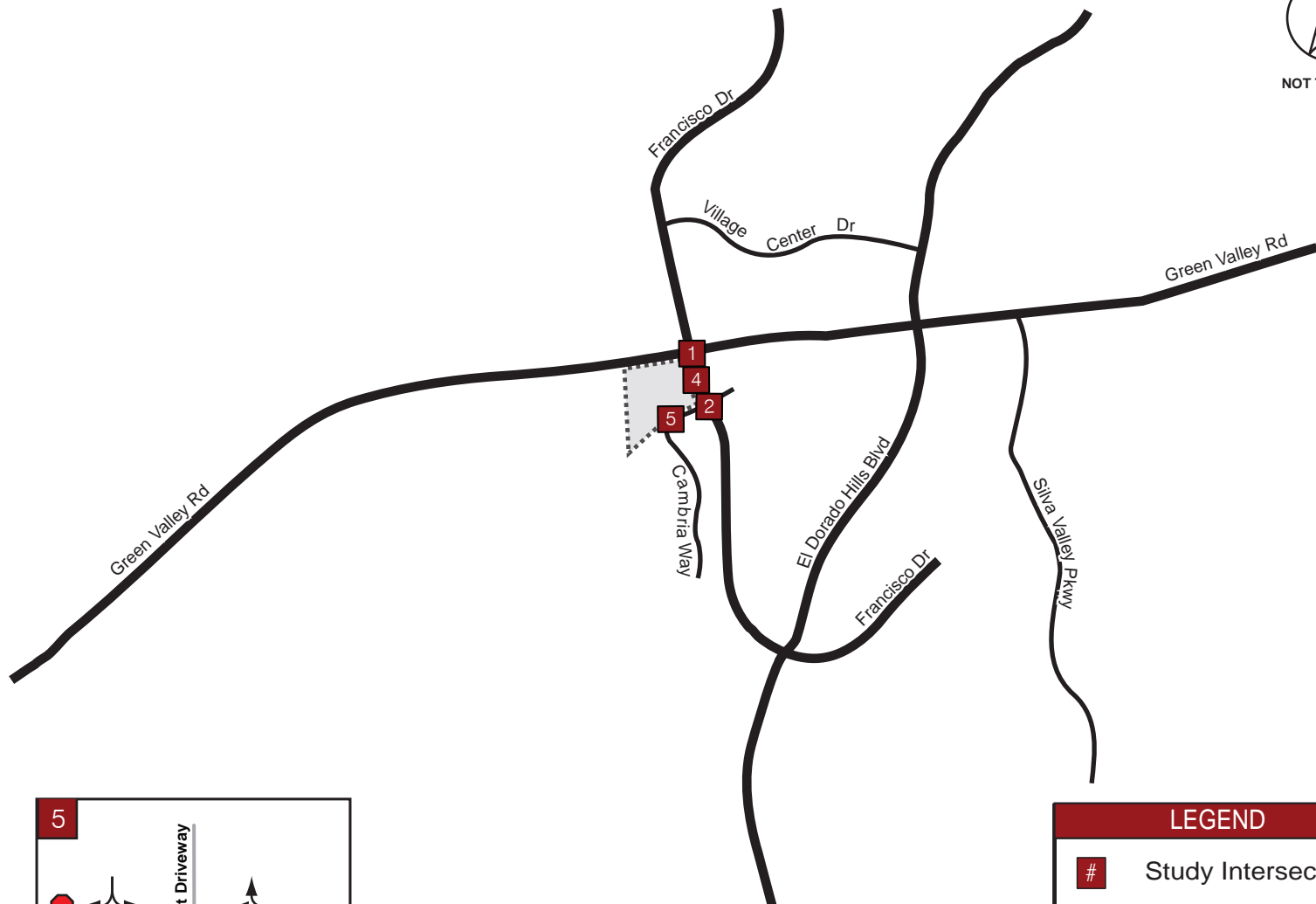
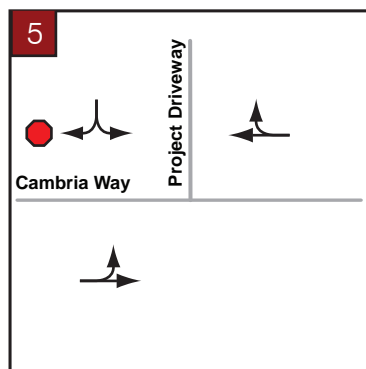
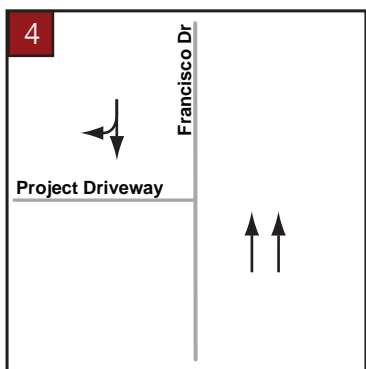
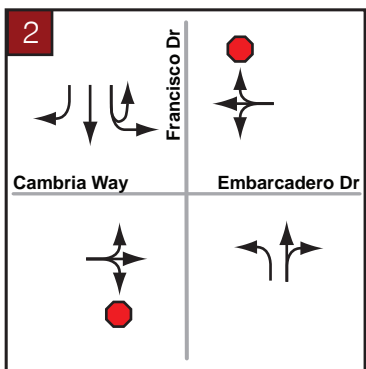
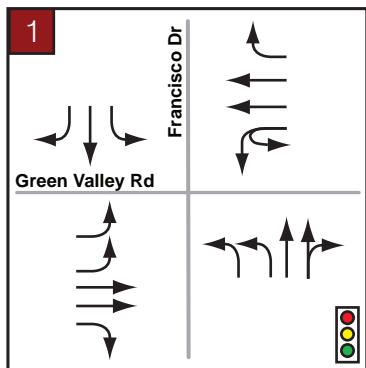
- Exhibit 1** – Revised Project Site Plan
- Exhibit 2** – Revised Study Intersections, Traffic Control, and Lane Geometries
- Exhibit 3** – Revised Project Trip Assignment
- Exhibit 4** – Revised Existing (2015) plus Proposed Project Peak-Hour Traffic Volumes
- Exhibit 5** – Revised Near-Term (2025) plus Proposed Project Peak-Hour Traffic Volumes
  
- Appendix A** – Analysis Worksheets for Existing (2015) plus Proposed Project Conditions
- Appendix B** – Analysis Worksheets for Near-Term (2025) plus Proposed Project Conditions
- Appendix C** – Analysis Worksheets for Traffic Signal Warrant Analyses



Source: Jeffrey DeMure + Associates Architects Planners, Inc., January 2017



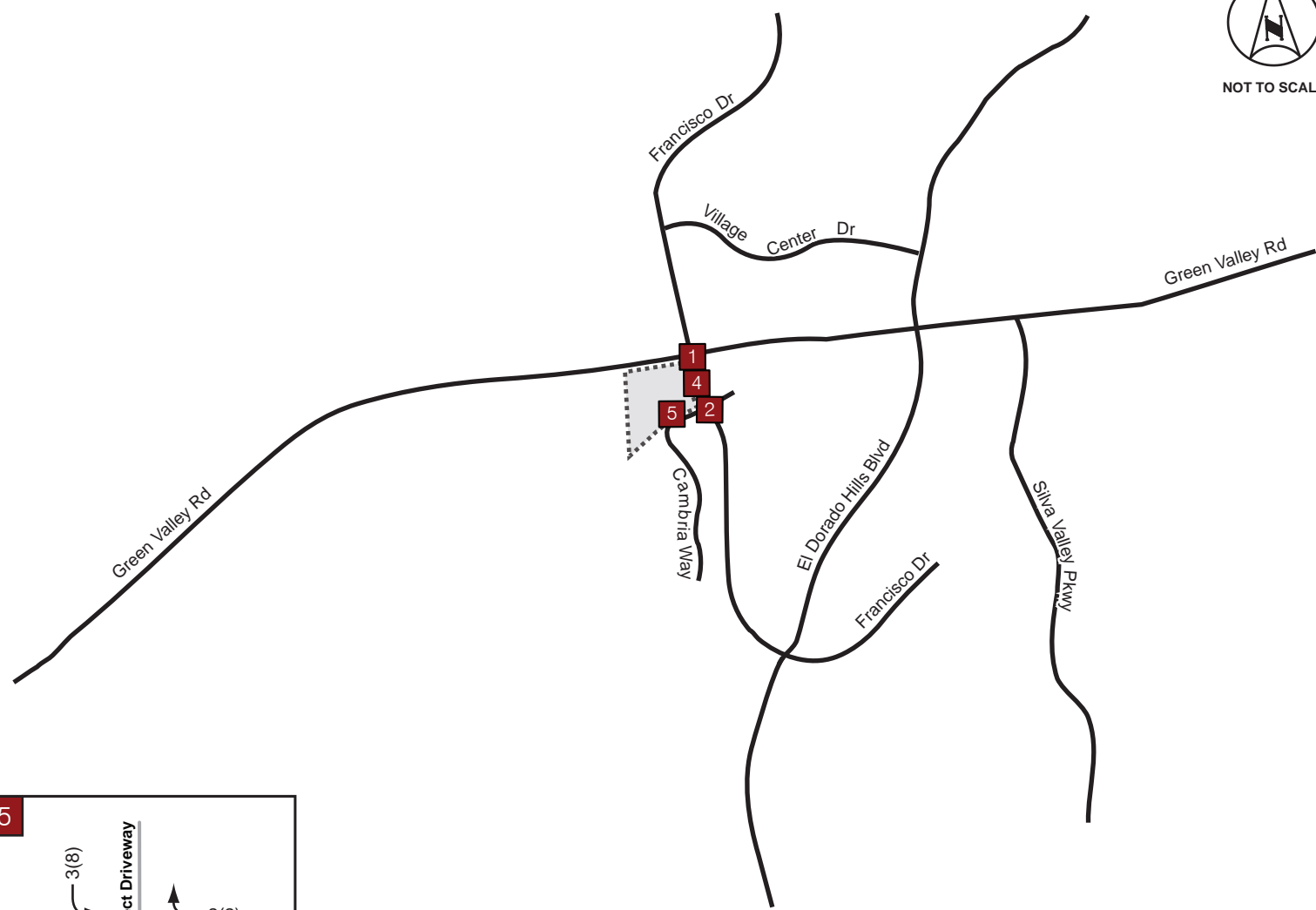
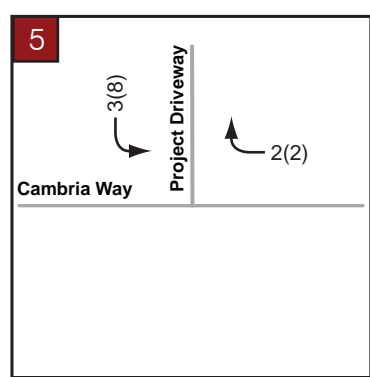
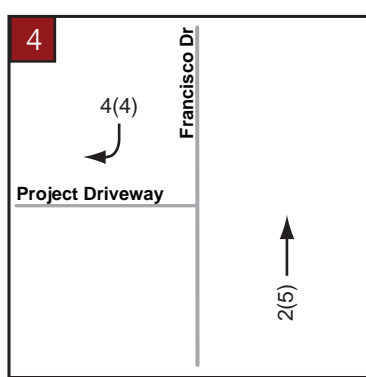
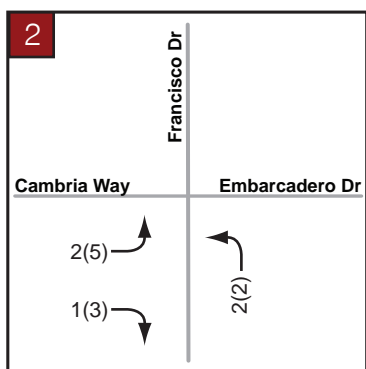
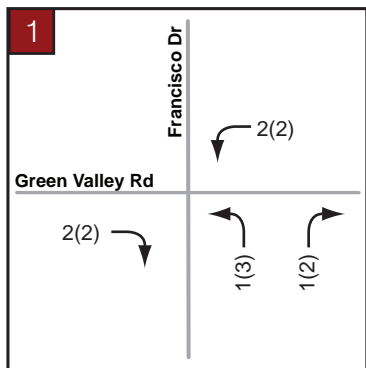
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#	Study Intersection
Red Octagon	Stop Controlled Approach
Traffic Light	Signalized Study Intersection
F	Free Movement
Dashed Box	Project Location



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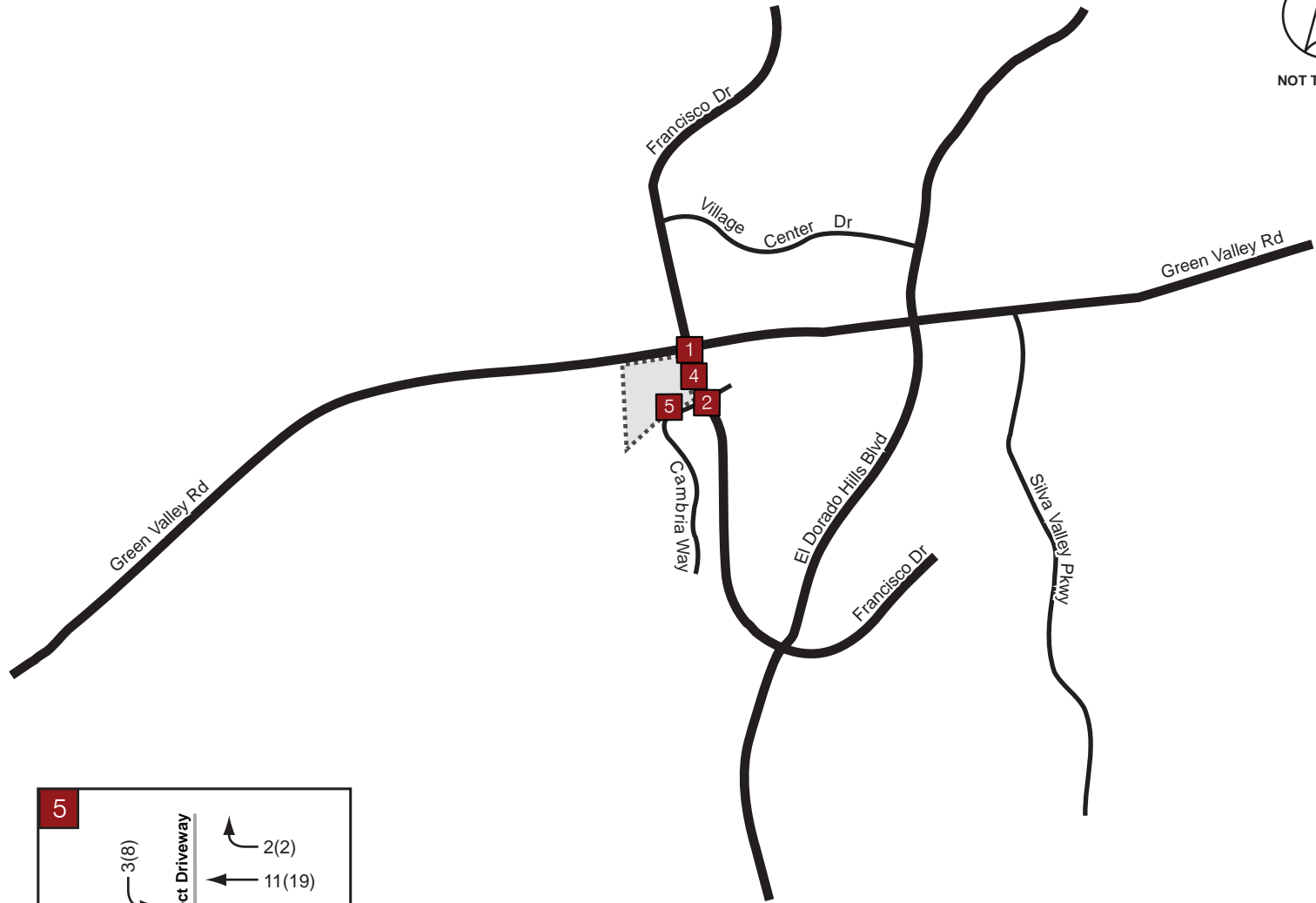
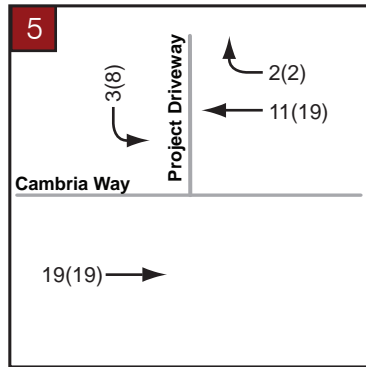
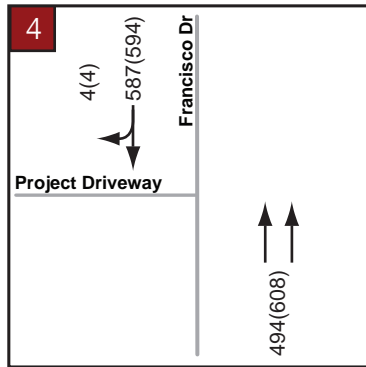
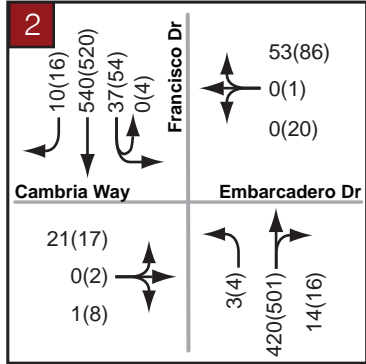
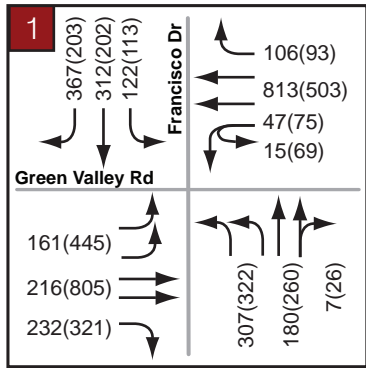


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#	Study Intersection
XX(Y)	AM(PM) Peak-Hour Volumes

# El Dorado Hills Memory Care Center: Supplemental Traffic Analysis - Revised Project Access



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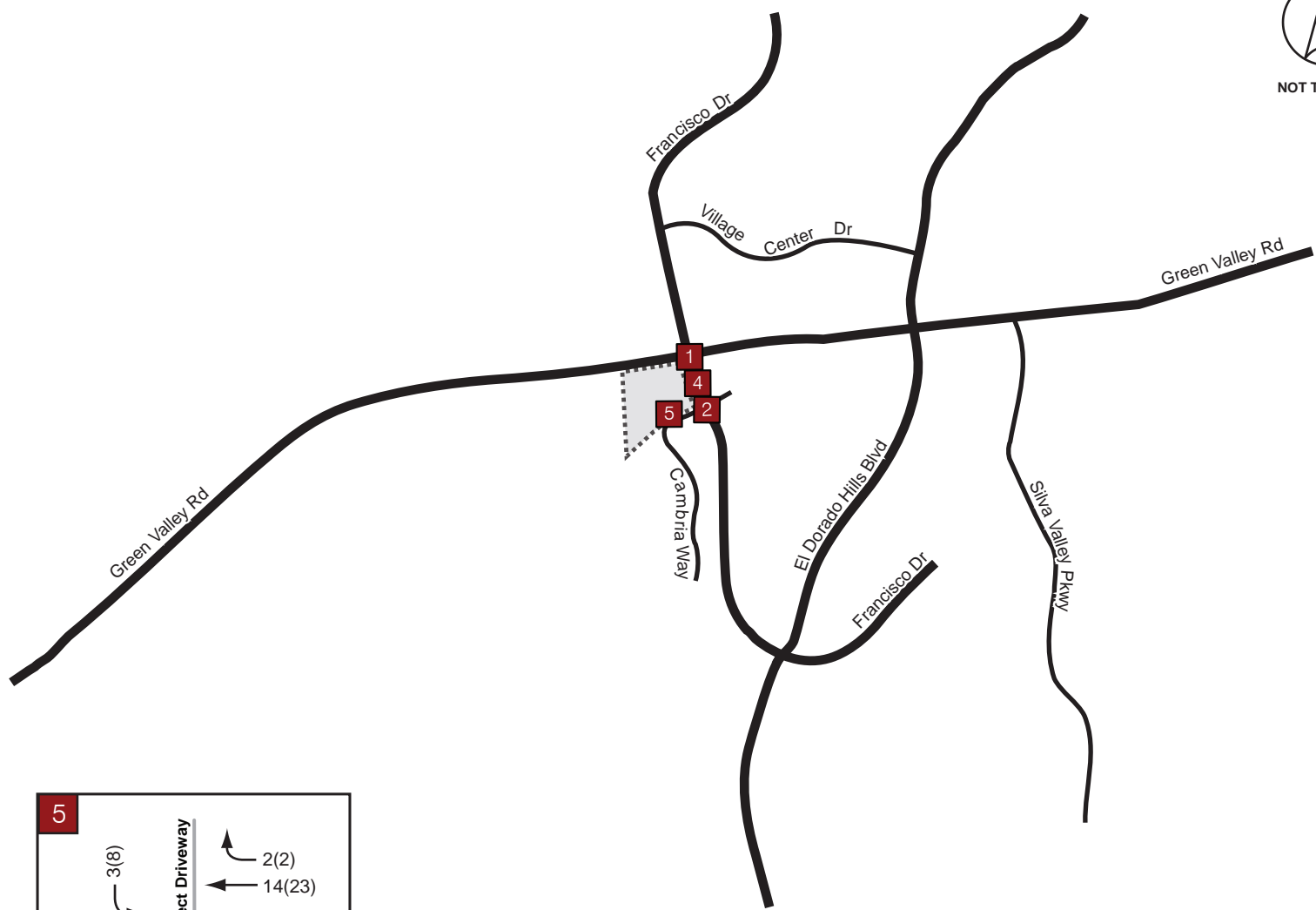
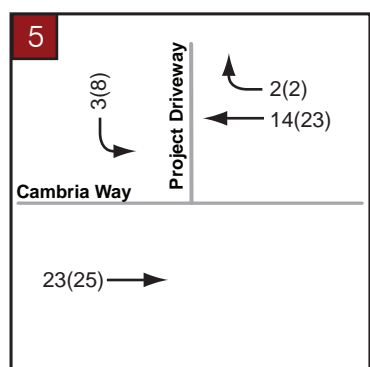
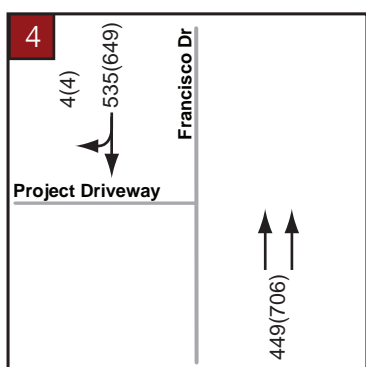
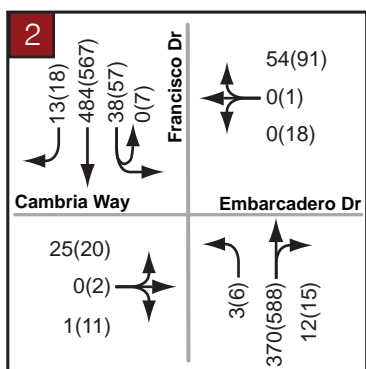
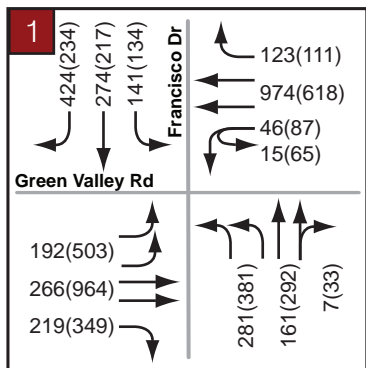


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XX(XX) AM(PM) Peak-Hour Volumes	

# El Dorado Hills Memory Care Center: Supplemental Traffic Analysis - Revised Project Access



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






























LEGEND	
#	Study Intersection
XX(XX) AM(PM) Peak-Hour Volumes	



**Appendix A**

*Analysis Worksheets for Existing (2015) plus Proposed Project Conditions*

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 				 		 	 	 		 
Traffic Volume (veh/h)	161	216	232	15	47	813	106	307	180	7	122	312
Future Volume (veh/h)	161	216	232	15	47	813	106	307	180	7	122	312
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1810	1776	1845		1900	1881	1863	1845	1863	1900	1845	1881
Adj Flow Rate, veh/h	199	267	286		54	934	122	365	214	8	158	405
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
Peak Hour Factor	0.81	0.81	0.81		0.87	0.87	0.87	0.84	0.84	0.84	0.77	0.77
Percent Heavy Veh, %	5	7	3		0	1	2	3	2	2	3	1
Cap, veh/h	190	1092	508		69	1091	483	439	1119	42	192	568
Arrive On Green	0.06	0.32	0.32		0.04	0.31	0.31	0.13	0.32	0.32	0.11	0.30
Sat Flow, veh/h	3343	3374	1568		1810	3574	1583	3408	3480	130	1757	1881
Grp Volume(v), veh/h	199	267	286		54	934	122	365	108	114	158	405
Grp Sat Flow(s),veh/h/ln	1672	1687	1568		1810	1787	1583	1704	1770	1840	1757	1881
Q Serve(g_s), s	5.0	5.1	13.2		2.6	21.6	5.1	9.2	3.9	3.9	7.7	16.8
Cycle Q Clear(g_c), s	5.0	5.1	13.2		2.6	21.6	5.1	9.2	3.9	3.9	7.7	16.8
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	190	1092	508		69	1091	483	439	569	592	192	568
V/C Ratio(X)	1.05	0.24	0.56		0.78	0.86	0.25	0.83	0.19	0.19	0.82	0.71
Avail Cap(c_a), veh/h	190	1092	508		103	1152	510	466	569	592	220	568
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	21.8	24.6		41.8	28.7	23.0	37.3	21.5	21.5	38.3	27.3
Incr Delay (d2), s/veh	77.6	0.1	1.4		19.3	6.3	0.3	11.6	0.2	0.2	19.7	4.2
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
%ile BackOfQ(50%),veh/ln	4.3	2.4	6.0		1.7	11.6	2.3	5.0	1.9	2.0	4.8	9.3
LnGrp Delay(d),s/veh	119.0	21.9	26.0		61.2	35.0	23.2	48.9	21.7	21.7	58.0	31.5
LnGrp LOS	F	C	C		E	C	C	D	C	C	E	C
Approach Vol, veh/h		752				1110			587			1040
Approach Delay, s/veh		49.2				35.0			38.6			52.4
Approach LOS		D				C			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	34.1	15.3	31.0	9.0	32.5	13.6	32.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.6	15.2	11.2	28.1	7.0	23.6	9.7	5.9				
Green Ext Time (p_c), s	0.0	7.1	0.1	0.0	0.0	3.2	0.1	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.8									
HCM 2010 LOS			D									
<b>Notes</b>												

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	367
Future Volume (veh/h)	367
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1881
Adj Flow Rate, veh/h	477
Adj No. of Lanes	1
Peak Hour Factor	0.77
Percent Heavy Veh, %	1
Cap, veh/h	483
Arrive On Green	0.30
Sat Flow, veh/h	1599
Grp Volume(v), veh/h	477
Grp Sat Flow(s),veh/h/ln	1599
Q Serve(g_s), s	26.1
Cycle Q Clear(g_c), s	26.1
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	483
V/C Ratio(X)	0.99
Avail Cap(c_a), veh/h	483
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	30.5
Incr Delay (d2), s/veh	37.8
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	16.5
LnGrp Delay(d),s/veh	68.3
LnGrp LOS	E
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	199	267	286	71	934	122	365	222	158	405	477
v/c Ratio	1.00	0.26	0.42	0.81	0.85	0.21	0.78	0.22	0.73	0.78	0.88
Control Delay	108.8	23.3	5.1	98.3	36.5	5.6	49.3	23.2	58.4	40.2	39.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.8	23.3	5.1	98.3	36.5	5.6	49.3	23.2	58.4	40.2	39.3
Queue Length 50th (ft)	~65	58	0	41	257	0	105	47	88	206	182
Queue Length 95th (ft)	#115	80	36	#115	318	34	#152	71	#139	252	233
Internal Link Dist (ft)		586			551			197		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	199	1140	719	88	1207	615	487	1159	230	595	603
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.23	0.40	0.81	0.77	0.20	0.75	0.19	0.69	0.68	0.79

**Intersection Summary**

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

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑		↕	↑	↕
Traffic Vol, veh/h	21	0	1	0	0	53	3	420	14	37	540	10
Future Vol, veh/h	21	0	1	0	0	53	3	420	14	37	540	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	80	80	80	93	93	93	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	0	1	0	0	66	3	452	15	42	614	11
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1197	1171	614	1164	1164	459	614	0	0	467	0	0
Stage 1	698	698	-	466	466	-	-	-	-	-	-	-
Stage 2	499	473	-	698	698	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	163	193	492	171	194	602	965	-	-	1094	-	-
Stage 1	431	442	-	577	562	-	-	-	-	-	-	-
Stage 2	554	558	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	140	185	492	165	186	602	965	-	-	1094	-	-
Mov Cap-2 Maneuver	140	185	-	165	186	-	-	-	-	-	-	-
Stage 1	430	425	-	575	560	-	-	-	-	-	-	-
Stage 2	491	556	-	413	425	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	36.6			11.7			0.1			0.5		
HCM LOS	E			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	965	-	-	145	602	1094	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.217	0.11	0.038	-	-				
HCM Control Delay (s)	8.7	-	-	36.6	11.7	8.4	-	-				
HCM Lane LOS	A	-	-	E	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.8	0.4	0.1	-	-				

**Intersection**

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	494	587	4
Future Vol, veh/h	0	0	0	494	587	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	537	638	4

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	640	- 0
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	6.23	- -
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	3.319	- -
Pot Cap-1 Maneuver	0	474	0 -
Stage 1	0	-	0 -
Stage 2	0	-	0 -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	-	474	- -
Mov Cap-2 Maneuver	-	-	- -
Stage 1	-	-	- -
Stage 2	-	-	- -

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

**Intersection**























Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	0	19	11	2	3	0
Future Vol, veh/h	0	19	11	2	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	12	2	3	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	14	0	34
Stage 1	-	-	13
Stage 2	-	-	21
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	1604	-	979
Stage 1	-	-	1010
Stage 2	-	-	1002
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1604	-	979
Mov Cap-2 Maneuver	-	-	979
Stage 1	-	-	1010
Stage 2	-	-	1002

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	979
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	445	805	321	69	75	503	93	322	260	26	113	202
Future Volume (veh/h)	445	805	321	69	75	503	93	322	260	26	113	202
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1810	1776	1845		1900	1881	1863	1845	1863	1900	1845	1881
Adj Flow Rate, veh/h	468	847	338		85	572	106	350	283	28	131	235
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95		0.88	0.88	0.88	0.92	0.92	0.92	0.86	0.86
Percent Heavy Veh, %	5	7	3		0	1	2	3	2	2	3	1
Cap, veh/h	490	1217	566		110	982	435	445	790	78	164	386
Arrive On Green	0.15	0.36	0.36		0.06	0.27	0.27	0.13	0.24	0.24	0.09	0.21
Sat Flow, veh/h	3343	3374	1568		1810	3574	1583	3408	3256	320	1757	1881
Grp Volume(v), veh/h	468	847	338		85	572	106	350	153	158	131	235
Grp Sat Flow(s),veh/h/ln	1672	1687	1568		1810	1787	1583	1704	1770	1806	1757	1881
Q Serve(g_s), s	10.4	16.1	13.2		3.5	10.4	3.9	7.5	5.4	5.5	5.5	8.5
Cycle Q Clear(g_c), s	10.4	16.1	13.2		3.5	10.4	3.9	7.5	5.4	5.5	5.5	8.5
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.18	1.00	
Lane Grp Cap(c), veh/h	490	1217	566		110	982	435	445	429	438	164	386
V/C Ratio(X)	0.95	0.70	0.60		0.78	0.58	0.24	0.79	0.36	0.36	0.80	0.61
Avail Cap(c_a), veh/h	490	1431	665		121	1230	545	545	637	650	187	577
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	20.5	19.5		34.7	23.5	21.1	31.6	23.5	23.6	33.3	27.1
Incr Delay (d2), s/veh	29.3	1.2	1.1		24.5	0.6	0.3	6.1	0.5	0.5	19.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	7.6	5.8		2.5	5.2	1.7	3.9	2.7	2.8	3.5	4.5
LnGrp Delay(d),s/veh	61.0	21.7	20.6		59.3	24.0	21.4	37.7	24.0	24.1	52.3	28.6
LnGrp LOS	E	C	C		E	C	C	D	C	C	D	C
Approach Vol, veh/h		1653				763			661			602
Approach Delay, s/veh		32.6				27.6			31.3			34.6
Approach LOS		C				C			C			C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	32.8	13.8	19.9	15.0	26.3	11.0	22.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	5.5	18.1	9.5	12.3	12.4	12.4	7.5	7.5				
Green Ext Time (p_c), s	0.0	8.4	0.3	3.1	0.0	8.2	0.0	4.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			31.7									
HCM 2010 LOS			C									
<b>Notes</b>												



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	203
Future Volume (veh/h)	203
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1881
Adj Flow Rate, veh/h	236
Adj No. of Lanes	1
Peak Hour Factor	0.86
Percent Heavy Veh, %	1
Cap, veh/h	328
Arrive On Green	0.21
Sat Flow, veh/h	1599
Grp Volume(v), veh/h	236
Grp Sat Flow(s),veh/h/ln	1599
Q Serve(g_s), s	10.3
Cycle Q Clear(g_c), s	10.3
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	328
V/C Ratio(X)	0.72
Avail Cap(c_a), veh/h	490
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	27.8
Incr Delay (d2), s/veh	3.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.8
LnGrp Delay(d),s/veh	30.7
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	468	847	338	163	572	106	350	311	131	235	236
v/c Ratio	0.96	0.74	0.45	1.65	0.62	0.20	0.69	0.36	0.70	0.62	0.46
Control Delay	69.0	27.3	4.5	363.6	28.6	2.0	41.1	24.5	59.2	36.5	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.0	27.3	4.5	363.6	28.6	2.0	41.1	24.5	59.2	36.5	7.2
Queue Length 50th (ft)	~121	187	0	~121	127	0	85	63	64	106	0
Queue Length 95th (ft)	#258	285	55	#261	192	9	#162	103	#164	175	48
Internal Link Dist (ft)		586			551			197		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	488	1428	858	99	1227	651	543	1262	186	575	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.59	0.39	1.65	0.47	0.16	0.64	0.25	0.70	0.41	0.36

**Intersection Summary**

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

**Intersection**

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑			↕	↑	↕
Traffic Vol, veh/h	17	2	8	20	1	86	4	501	16	4	54	520	16
Future Vol, veh/h	17	2	8	20	1	86	4	501	16	4	54	520	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	70	70	70	79	79	79	95	95	95	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	3	11	25	1	109	4	527	17	4	59	571	18

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1289	1252	571	1241	1243	536	571	0	0	543	544	0	0
Stage 1	690	699	-	544	544	-	-	-	-	-	-	-	-
Stage 2	599	553	-	697	699	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	141	172	520	152	174	545	1002	-	-	-	1025	-	-
Stage 1	435	442	-	523	519	-	-	-	-	-	-	-	-
Stage 2	488	514	-	431	442	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	112	171	520	146	173	545	1002	-	-	~ -15	~ -15	-	-
Mov Cap-2 Maneuver	112	171	-	146	173	-	-	-	-	-	-	-	-
Stage 1	433	442	-	521	517	-	-	-	-	-	-	-	-
Stage 2	388	512	-	419	442	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.8	21.2	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1002	-	-	151	356	+	-	-
HCM Lane V/C Ratio	0.004	-	-	0.255	0.38	-	-	-
HCM Control Delay (s)	8.6	-	-	36.8	21.2	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	1	1.7	-	-	-

**Notes**  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↖↖	↗	
Traffic Vol, veh/h	0	0	0	608	594	4
Future Vol, veh/h	0	0	0	608	594	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	661	646	4

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	648	- 0
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	6.23	- -
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	3.319	- -
Pot Cap-1 Maneuver	0	469	0 -
Stage 1	0	-	0 -
Stage 2	0	-	0 -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	-	469	- -
Mov Cap-2 Maneuver	-	-	- -
Stage 1	-	-	- -
Stage 2	-	-	- -

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

**Intersection**

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	0	19	19	2	8	0
Future Vol, veh/h	0	19	19	2	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	21	2	9	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	23	0	43
Stage 1	-	-	22
Stage 2	-	-	21
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	1592	-	968
Stage 1	-	-	1001
Stage 2	-	-	1002
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1592	-	968
Mov Cap-2 Maneuver	-	-	968
Stage 1	-	-	1001
Stage 2	-	-	1002

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	968
HCM Lane V/C Ratio	-	-	-	-	0.009
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

**Appendix B**

*Analysis Worksheets for Near-Term (2025) plus Proposed Project Conditions*

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	192	266	219	15	46	974	123	281	161	7	141	274
Future Volume (veh/h)	192	266	219	15	46	974	123	281	161	7	141	274
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1810	1776	1845		1900	1881	1863	1845	1863	1900	1845	1881
Adj Flow Rate, veh/h	209	289	238		50	1059	134	305	175	8	153	298
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
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
Percent Heavy Veh, %	5	7	3		0	1	2	3	2	2	3	1
Cap, veh/h	191	1147	533		64	1136	503	385	1070	49	187	571
Arrive On Green	0.06	0.34	0.34		0.04	0.32	0.32	0.11	0.31	0.31	0.11	0.30
Sat Flow, veh/h	3343	3374	1568		1810	3574	1583	3408	3448	157	1757	1881
Grp Volume(v), veh/h	209	289	238		50	1059	134	305	89	94	153	298
Grp Sat Flow(s),veh/h/ln	1672	1687	1568		1810	1787	1583	1704	1770	1835	1757	1881
Q Serve(g_s), s	5.0	5.4	10.3		2.4	25.1	5.5	7.6	3.2	3.2	7.4	11.5
Cycle Q Clear(g_c), s	5.0	5.4	10.3		2.4	25.1	5.5	7.6	3.2	3.2	7.4	11.5
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.09	1.00	
Lane Grp Cap(c), veh/h	191	1147	533		64	1136	503	385	549	569	187	571
V/C Ratio(X)	1.09	0.25	0.45		0.78	0.93	0.27	0.79	0.16	0.16	0.82	0.52
Avail Cap(c_a), veh/h	191	1147	533		104	1158	513	468	557	578	221	571
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	20.8	22.4		41.8	28.9	22.2	37.7	21.9	21.9	38.2	25.2
Incr Delay (d2), s/veh	91.8	0.1	0.6		18.3	13.1	0.3	7.5	0.1	0.1	18.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.5	4.6		1.5	14.4	2.4	4.0	1.6	1.7	4.6	6.1
LnGrp Delay(d),s/veh	133.0	20.9	23.0		60.1	42.0	22.5	45.2	22.0	22.0	56.7	26.0
LnGrp LOS	F	C	C		E	D	C	D	C	C	E	C
Approach Vol, veh/h		736				1243			488			912
Approach Delay, s/veh		53.4				40.6			36.5			47.6
Approach LOS		D				D			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	35.4	13.9	31.0	9.0	33.5	13.3	31.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.4	12.3	9.6	26.6	7.0	27.1	9.4	5.2				
Green Ext Time (p_c), s	0.0	8.7	0.3	0.0	0.0	0.7	0.1	4.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			44.7									
HCM 2010 LOS			D									
<b>Notes</b>												

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	424
Future Volume (veh/h)	424
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1881
Adj Flow Rate, veh/h	461
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	1
Cap, veh/h	485
Arrive On Green	0.30
Sat Flow, veh/h	1599
Grp Volume(v), veh/h	461
Grp Sat Flow(s),veh/h/ln	1599
Q Serve(g_s), s	24.6
Cycle Q Clear(g_c), s	24.6
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	485
V/C Ratio(X)	0.95
Avail Cap(c_a), veh/h	485
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	29.8
Incr Delay (d2), s/veh	28.7
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	14.7
LnGrp Delay(d),s/veh	58.4
LnGrp LOS	E
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	209	289	238	66	1059	134	305	183	153	298	461
v/c Ratio	1.06	0.24	0.34	0.58	0.91	0.22	0.68	0.19	0.71	0.60	0.87
Control Delay	121.8	22.3	4.7	63.5	41.3	5.3	44.4	23.1	56.9	32.7	38.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	121.8	22.3	4.7	63.5	41.3	5.3	44.4	23.1	56.9	32.7	38.9
Queue Length 50th (ft)	~71	64	0	38	306	0	86	38	85	141	170
Queue Length 95th (ft)	#141	97	51	#100	#437	39	129	64	#176	223	#333
Internal Link Dist (ft)		586			551			197		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	198	1185	705	113	1204	622	485	1154	229	593	602
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.24	0.34	0.58	0.88	0.22	0.63	0.16	0.67	0.50	0.77

**Intersection Summary**

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

**Intersection**

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑		↕	↑	↕
Traffic Vol, veh/h	25	0	1	0	0	54	3	370	12	38	484	13
Future Vol, veh/h	25	0	1	0	0	54	3	370	12	38	484	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	0	1	0	0	59	3	402	13	41	526	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1054	1031	526	1024	1024	409	526	0	0	415	0	0
Stage 1	609	609	-	415	415	-	-	-	-	-	-	-
Stage 2	445	422	-	609	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	204	233	552	214	235	642	1041	-	-	1144	-	-
Stage 1	482	485	-	615	592	-	-	-	-	-	-	-
Stage 2	592	588	-	482	485	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	180	224	552	207	226	642	1041	-	-	1144	-	-
Mov Cap-2 Maneuver	180	224	-	207	226	-	-	-	-	-	-	-
Stage 1	481	468	-	613	590	-	-	-	-	-	-	-
Stage 2	536	586	-	464	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.9	11.2	0.1	0.6
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1041	-	-	185	642	1144	-
HCM Lane V/C Ratio	0.003	-	-	0.153	0.091	0.036	-
HCM Control Delay (s)	8.5	-	-	27.9	11.2	8.3	-
HCM Lane LOS	A	-	-	D	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-

**Intersection**

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↖	
Traffic Vol, veh/h	0	0	0	449	535	4
Future Vol, veh/h	0	0	0	449	535	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	488	582	4

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	584	- 0
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	6.23	- -
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	3.319	- -
Pot Cap-1 Maneuver	0	511	0 -
Stage 1	0	-	0 -
Stage 2	0	-	0 -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	-	511	- -
Mov Cap-2 Maneuver	-	-	- -
Stage 1	-	-	- -
Stage 2	-	-	- -

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

**Intersection**























Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	0	23	14	2	3	0
Future Vol, veh/h	0	23	14	2	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	15	2	3	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	17	0	41
Stage 1	-	-	16
Stage 2	-	-	25
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	1600	-	970
Stage 1	-	-	1007
Stage 2	-	-	998
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1600	-	970
Mov Cap-2 Maneuver	-	-	970
Stage 1	-	-	1007
Stage 2	-	-	998

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	970
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	503	964	349	65	87	618	111	381	292	33	134	217
Future Volume (veh/h)	503	964	349	65	87	618	111	381	292	33	134	217
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1810	1776	1845		1900	1881	1863	1845	1863	1900	1845	1881
Adj Flow Rate, veh/h	547	1048	379		95	672	121	414	317	36	146	236
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
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
Percent Heavy Veh, %	5	7	3		0	1	2	3	2	2	3	1
Cap, veh/h	443	1245	578		109	1060	470	487	819	92	169	393
Arrive On Green	0.13	0.37	0.37		0.06	0.30	0.30	0.14	0.26	0.26	0.10	0.21
Sat Flow, veh/h	3343	3374	1568		1810	3574	1583	3408	3207	361	1757	1881
Grp Volume(v), veh/h	547	1048	379		95	672	121	414	174	179	146	236
Grp Sat Flow(s),veh/h/ln	1672	1687	1568		1810	1787	1583	1704	1770	1799	1757	1881
Q Serve(g_s), s	11.0	23.6	16.7		4.3	13.5	4.8	9.8	6.7	6.8	6.8	9.4
Cycle Q Clear(g_c), s	11.0	23.6	16.7		4.3	13.5	4.8	9.8	6.7	6.8	6.8	9.4
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.20	1.00	
Lane Grp Cap(c), veh/h	443	1245	578		109	1060	470	487	452	460	169	393
V/C Ratio(X)	1.24	0.84	0.66		0.87	0.63	0.26	0.85	0.38	0.39	0.86	0.60
Avail Cap(c_a), veh/h	443	1292	600		109	1110	492	492	575	585	169	521
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	24.0	21.8		38.7	25.3	22.2	34.7	25.5	25.6	37.0	29.7
Incr Delay (d2), s/veh	124.2	5.1	2.5		48.8	1.1	0.3	13.1	0.5	0.5	33.9	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	11.8	7.6		3.6	6.8	2.1	5.5	3.4	3.5	4.9	5.1
LnGrp Delay(d),s/veh	160.2	29.1	24.3		87.5	26.4	22.5	47.9	26.1	26.1	70.9	31.2
LnGrp LOS	F	C	C		F	C	C	D	C	C	E	C
Approach Vol, veh/h		1974				888			767			636
Approach Delay, s/veh		64.5				32.4			37.8			42.4
Approach LOS		E				C			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	36.3	15.9	21.9	15.0	30.3	12.0	25.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	6.3	25.6	11.8	14.4	13.0	15.5	8.8	8.8				
Green Ext Time (p_c), s	0.0	5.0	0.0	2.9	0.0	7.8	0.0	4.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			49.7									
HCM 2010 LOS			D									
<b>Notes</b>												

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	234
Future Volume (veh/h)	234
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1881
Adj Flow Rate, veh/h	254
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	1
Cap, veh/h	334
Arrive On Green	0.21
Sat Flow, veh/h	1599
Grp Volume(v), veh/h	254
Grp Sat Flow(s),veh/h/ln	1599
Q Serve(g_s), s	12.4
Cycle Q Clear(g_c), s	12.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	334
V/C Ratio(X)	0.76
Avail Cap(c_a), veh/h	443
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	30.9
Incr Delay (d2), s/veh	5.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	6.0
LnGrp Delay(d),s/veh	36.3
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	547	1048	379	166	672	121	414	353	146	236	254
v/c Ratio	1.21	0.84	0.46	1.77	0.64	0.21	0.82	0.41	0.84	0.64	0.52
Control Delay	146.1	31.8	4.4	415.5	28.7	2.7	50.2	26.2	78.0	38.9	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	146.1	31.8	4.4	415.5	28.7	2.7	50.2	26.2	78.0	38.9	10.3
Queue Length 50th (ft)	~186	253	0	~133	156	0	110	78	77	114	15
Queue Length 95th (ft)	#312	#409	58	#272	236	20	#207	115	#200	186	76
Internal Link Dist (ft)		586			551			197		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	453	1327	847	94	1141	616	504	1174	173	535	612
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.21	0.79	0.45	1.77	0.59	0.20	0.82	0.30	0.84	0.44	0.42

**Intersection Summary**

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

Intersection													
Int Delay, s/veh	3.1												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑			↕	↑	↕
Traffic Vol, veh/h	20	2	11	18	1	91	6	588	15	7	57	567	18
Future Vol, veh/h	20	2	11	18	1	91	6	588	15	7	57	567	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	88	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	2	12	20	1	99	7	639	16	8	62	616	20

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1450	1424	616	1407	1416	647	616	0	0	655	655	0	0
Stage 1	740	756	-	660	660	-	-	-	-	-	-	-	-
Stage 2	710	668	-	747	756	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	136	491	117	137	471	964	-	-	-	932	-	-
Stage 1	409	416	-	452	460	-	-	-	-	-	-	-	-
Stage 2	424	456	-	405	416	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	85	135	491	112	136	471	964	-	-	-9	-9	-	-
Mov Cap-2 Maneuver	85	135	-	112	136	-	-	-	-	-	-	-	-
Stage 1	406	416	-	449	457	-	-	-	-	-	-	-	-
Stage 2	332	453	-	393	416	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46.8	24.3	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	964	-	-	121	304	+	-	-
HCM Lane V/C Ratio	0.007	-	-	0.296	0.393	-	-	-
HCM Control Delay (s)	8.8	-	-	46.8	24.3	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	1.1	1.8	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↖	
Traffic Vol, veh/h	0	0	0	706	649	4
Future Vol, veh/h	0	0	0	706	649	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	767	705	4

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	708	- 0
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	6.23	- -
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	3.319	- -
Pot Cap-1 Maneuver	0	434	0 -
Stage 1	0	-	0 -
Stage 2	0	-	0 -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	-	434	- -
Mov Cap-2 Maneuver	-	-	- -
Stage 1	-	-	- -
Stage 2	-	-	- -

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

**Intersection**

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	0	25	23	2	8	0
Future Vol, veh/h	0	25	23	2	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	25	2	9	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	27	0	53
Stage 1	-	-	26
Stage 2	-	-	27
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	1587	-	955
Stage 1	-	-	997
Stage 2	-	-	996
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1587	-	955
Mov Cap-2 Maneuver	-	-	955
Stage 1	-	-	997
Stage 2	-	-	996

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1587	-	-	-	955
HCM Lane V/C Ratio	-	-	-	-	0.009
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

*Appendix C*  
*Analysis Worksheets for Traffic Signal Warrant Analyses*

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----  
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	420	14			37	540	10			21	0	1			0	0	53				
ApproachDel:	xxxxxx					xxxxxx					36.1					11.7						

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=22]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1099]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=53]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1099]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	420		14		37	540		10		21	0		1		0	0		0		53	
Major Street Volume:											1024											
Minor Approach Volume:											53											
Minor Approach Volume Threshold:											277											

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound							
Approach:																				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	494		0		0	587		4		0	0		0		0	0		0	
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	494		0		0	587		4		0	0		0		0	0		0	
Major Street Volume:					1085															
Minor Approach Volume:					0															
Minor Approach Volume Threshold:					257															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		3	0	0		0	19	0		0	11	2	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=3]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=35]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0	0	0	0	0	3	0	0	0	0	0	19	0	0	0	0	11	0	2	0
Major Street Volume:					32															
Minor Approach Volume:					3															
Minor Approach Volume Threshold:	1137																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

-----

Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

---

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0		
Initial Vol:	4	501	16	54	520	16	17	2	8	20	1	86										
ApproachDel:	xxxxxxx					xxxxxxx					38.3					21.7						

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=27]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1245]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=107]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1245]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	R	L	T	R	L	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	4	501	16			54	520	16			17	2	8			20	1	86		
Major Street Volume:											1111									
Minor Approach Volume:											107									
Minor Approach Volume Threshold:											249									

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound							
Approach:																				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	608		0		0	594		4		0	0		0		0	0		0	
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	608		0		0	594		4		0	0		0		0	0		0	
Major Street Volume:													1206							
Minor Approach Volume:													0							
Minor Approach Volume Threshold:													220							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		8	0	0		0	19	0		0	19	2	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=8]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=48]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		8	0	0		0	19	0		0	19	2	
Major Street Volume:													40			
Minor Approach Volume:													8			
Minor Approach Volume Threshold:	1078															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

---

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	370	12	38	484	13	25	0	1	0	0	0	54	0	0	54						
ApproachDel:	xxxxxx					xxxxxx					27.7					11.1						

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=26]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1000]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=54]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1000]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	370	12			38	484	13			25	0	1			0	0	0	0	54		
Major Street Volume:											920											
Minor Approach Volume:											54											
Minor Approach Volume Threshold:											314											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound							
Approach:																				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	449		0		0	535		4		0	0		0		0	0		0	
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	449		0		0	535		4		0	0		0		0	0		0	
Major Street Volume:					988															
Minor Approach Volume:					0															
Minor Approach Volume Threshold:					289															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		3	0	0		0	23	0		0	14	2	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=3]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=42]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0		0		0	3		0		0	0	23		0		0	14		2	
Major Street Volume:					39															
Minor Approach Volume:					3															
Minor Approach Volume Threshold:					1085															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-----

Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----  
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	6	588	15	57	567	18	20	2	11	18	1	91	49.0	25.1											
ApproachDel:	xxxxxxx					xxxxxxx					49.0					25.1									

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=33]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1394]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=110]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1394]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1
Initial Vol:	6	588	15	57	567	18	20	2	11	18	1	91
Major Street Volume:							1251					
Minor Approach Volume:							110					
Minor Approach Volume Threshold:							208					

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound							
Approach:																				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	706		0		0	649		4		0	0		0		0	0		0	
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	0	706		0		0	649		4		0	0		0		0	0		0	
Major Street Volume:									1359											
Minor Approach Volume:									0											
Minor Approach Volume Threshold:									179											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		8	0	0		0	25	0		0	23	2	
ApproachDel:	xxxxxx				8.8				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=8]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=58]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0	0	0	0	0	8	0	0	0	0	0	25	0	0	0	0	23	0	2	0
Major Street Volume:					50															
Minor Approach Volume:					8															
Minor Approach Volume Threshold:					1018															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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*Traffic Impact Analysis*

**El Dorado Hills Memory Care Center (WO#22)  
El Dorado Hills, California**

June 5, 2015

**Prepared for:**

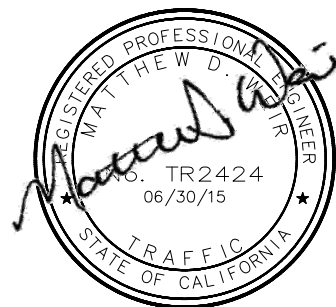
Sierra Capital & Investment, Inc.

**Prepared by:**

**Kimley»»Horn**

2720 Gateway Oaks Drive, Suite 310  
Sacramento, California 95833

Phone: (916) 858-5800



## EXECUTIVE SUMMARY

This report documents the results of a traffic impact analysis completed for the El Dorado Hills Memory Care Center project proposed to be located in the southwest corner of the Green Valley Road intersection with Francisco Drive in El Dorado Hills, 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 6.85-acre project site is proposed to be developed with a 40,000-square foot memory care center. Access to the site will be provided via one full access driveway along Cambria Way, and one right-in/right-out driveway along Green Valley Road. The following intersections are included in this evaluation:

1. Green Valley Road at Francisco Drive
2. Francisco Drive at Cambria Way/Embarcadero Drive
3. Francisco Drive at El Dorado Hills Boulevard
4. Green Valley Road at Project Site Access Driveway (Project Only)
5. Cambria Way at 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 (2015) Conditions
- B. Existing (2015) plus Proposed Project Conditions
- C. Near-Term (2025) Conditions
- D. Near-Term (2025) plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is estimated to generate 172 total new daily trips, with 9 new trips occurring during the AM peak-hour, and 14 new trips occurring during the PM peak-hour.
- The County’s current Travel Demand Model (TDM) incorporates non-residential growth for the subject parcel within the project’s Traffic Analysis Zone (TAZ #614). Because the project (20 employees, 64 beds) is less intensive than what is currently included in the County’s TDM (a total of 48 non-retail employees), new Cumulative (2035) analyses are not required to be completed as part of this study.
- As defined by the County, the addition of the proposed project to the Existing (2015) and Near-Term (2025) scenarios does not worsen conditions at the study intersections. As a result, the project’s potential environmental impacts to transportation facilities are considered to be ***less than significant***.

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## INTRODUCTION

This report documents the results of a traffic impact analysis completed for the El Dorado Hills Memory Care Center project proposed to be located in the southwest corner of the Green Valley Road intersection with Francisco Drive in El Dorado Hills, 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>1</sup>.

The remaining sections of this report document the proposed project, analysis methodologies, impacts and mitigation, and general study conclusions.

## PROJECT DESCRIPTION

The 6.85-acre project site is proposed to be developed with a 40,000-square foot memory care center. Access to the site will be provided via one full access driveway along Cambria Way, and one right-in/right-out driveway along Green Valley Road. The project location is shown in **Figure 1**, and the proposed project site plan is shown in **Figure 2**. The following intersections are included in this evaluation:

1. Green Valley Road at Francisco Drive
2. Francisco Drive at Cambria Way/Embarcadero Drive
3. Francisco Drive at El Dorado Hills Boulevard
4. Green Valley Road at Project Site Access Driveway (Project Only)
5. Cambria Way at Project Site Access Driveway (Project Only)

**Figure 3** illustrates the study facilities, existing traffic control, and existing lane configurations.

## PROJECT AREA ROADWAYS

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

**US Route 50 (US-50)** is an east-west freeway located south of the project site. Generally, US-50 serves all of El Dorado County’s major population centers and provides connections to Sacramento County to the west and the State of Nevada to the east. Primary access to the project site from US-50 is provided at the El Dorado Hills Boulevard/Latrobe Road interchange. Within the general project area, US-50 currently serves approximately 90,000 vehicles per day<sup>2</sup> (vpd) with three travel lanes in each direction, west of El Dorado Hills Boulevard/Latrobe Road.

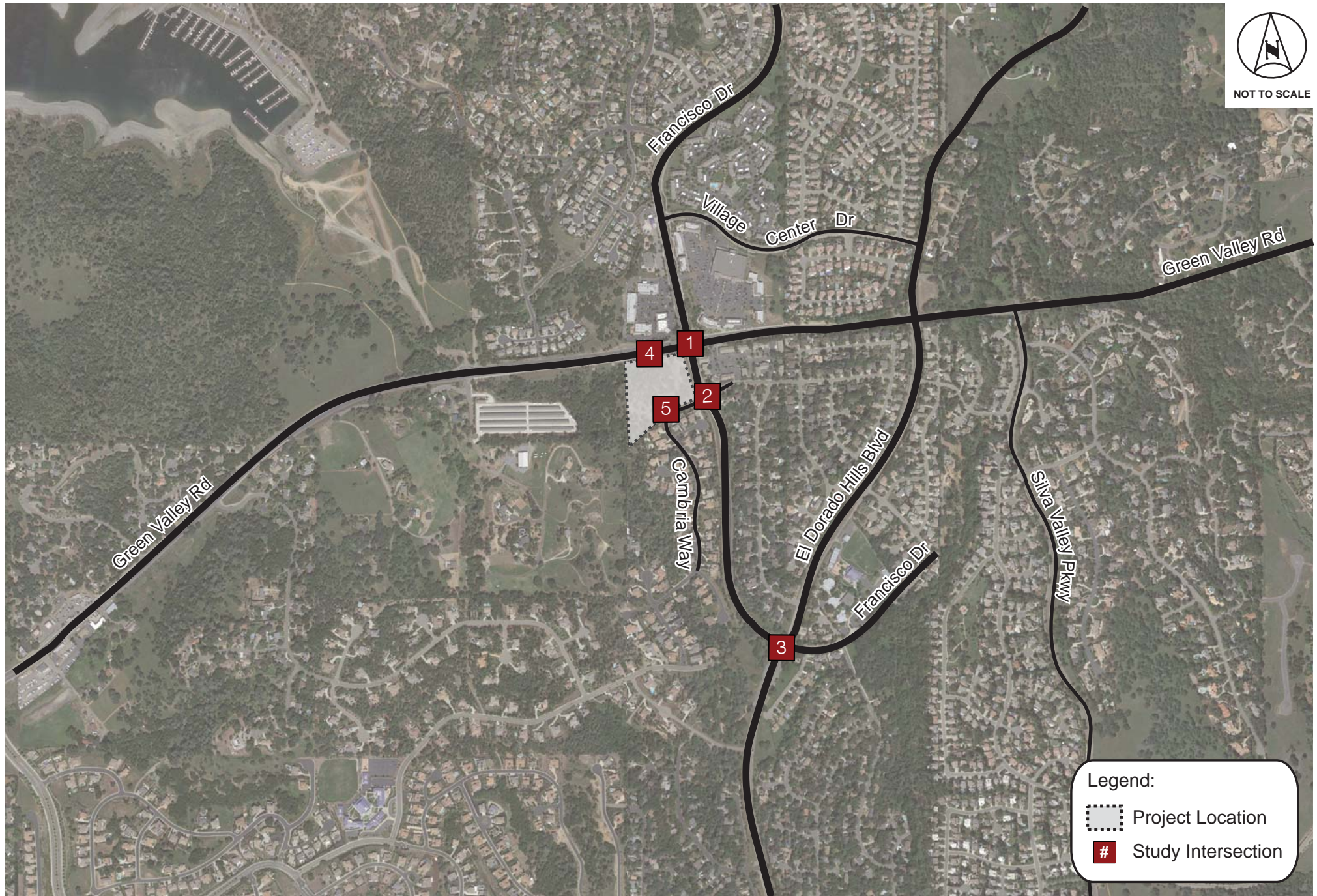
**Green Valley Road** is an east-west arterial roadway that connects Placerville with western portions of El Dorado County and eastern Sacramento County, south of Folsom Lake. Through the project area, Green Valley Road provides two travel lanes in each direction and serves approximately 25,600 vehicles per day<sup>3</sup>.

<sup>1</sup> Memorandum from Chirag Safi and Sara Muse, Kittelson & Associates, Inc., to Natalie Porter, El Dorado County, February 27, 2015.

<sup>2</sup> Caltrans Traffic and Vehicle Data Systems Unit, <http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2013all/>

<sup>3</sup> El Dorado County Department of Transportation, 2013.



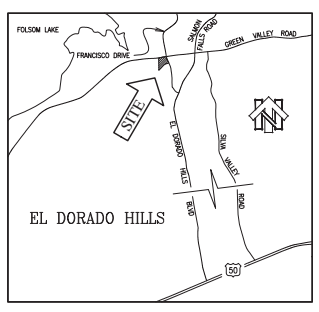
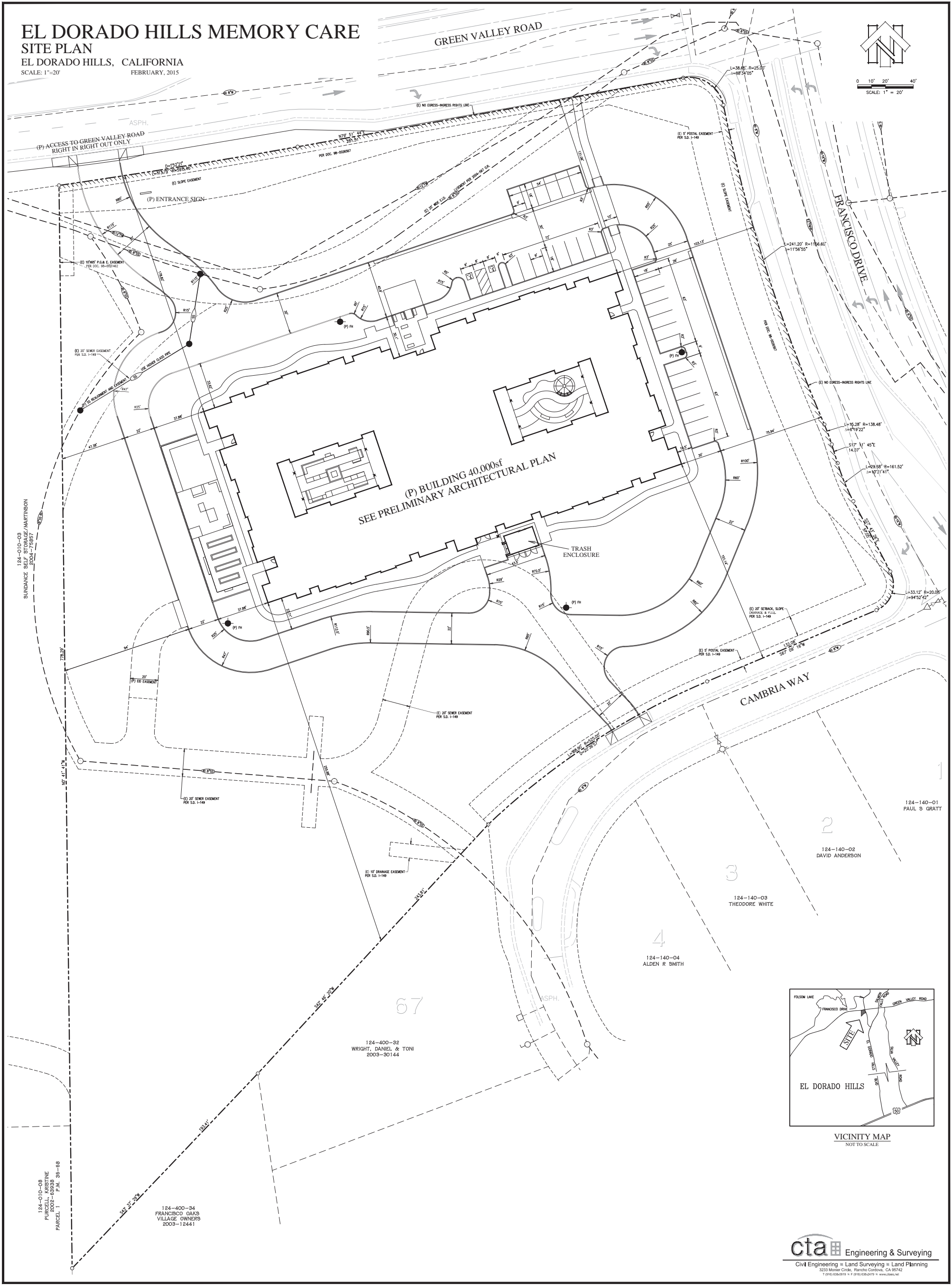


# EL DORADO HILLS MEMORY CARE

SITE PLAN  
EL DORADO HILLS, CALIFORNIA  
SCALE: 1"=20' FEBRUARY, 2015



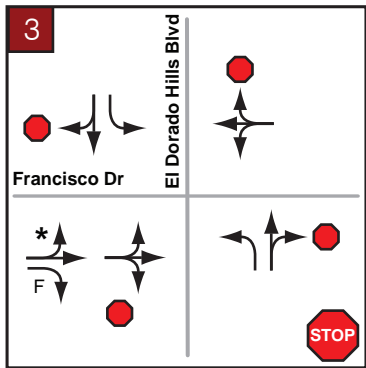
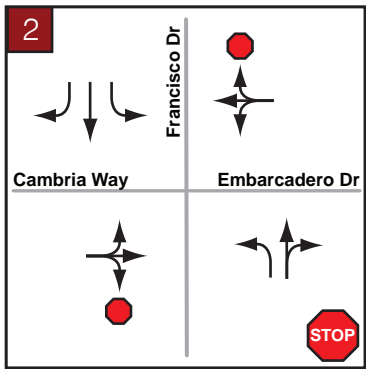
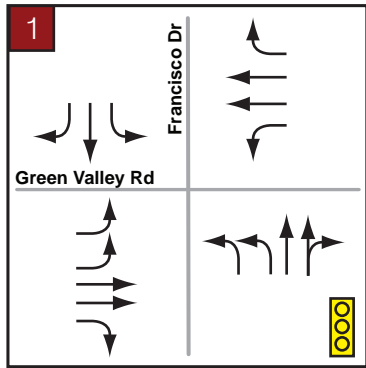
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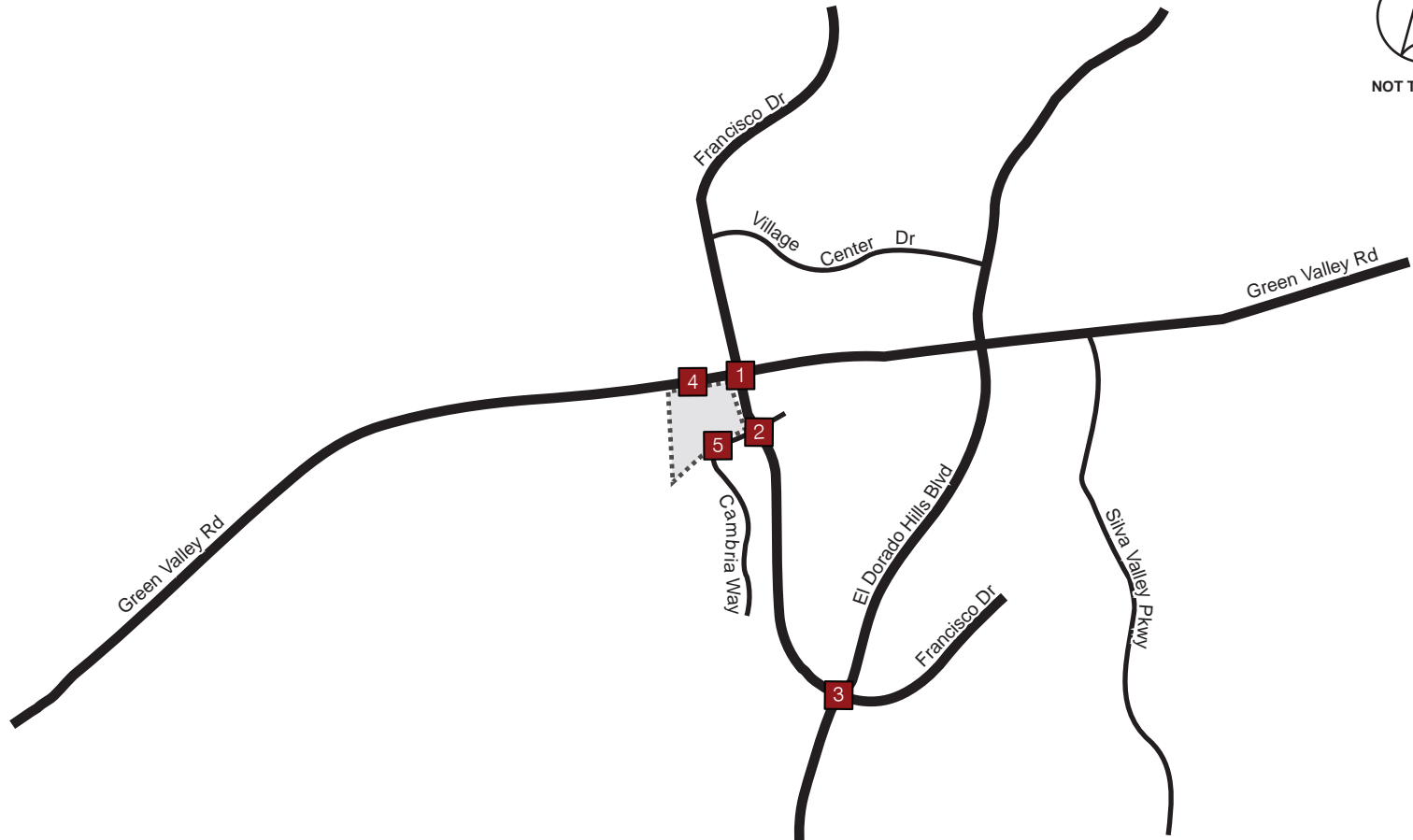
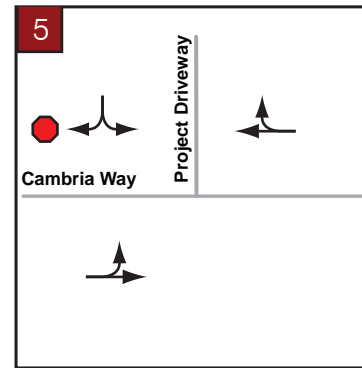
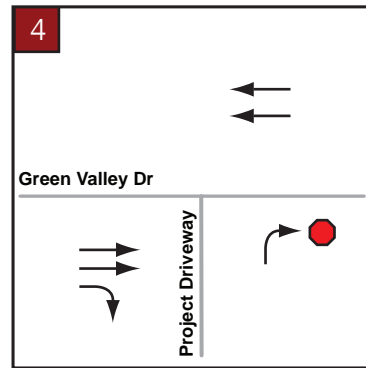
cta Engineering & Surveying  
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3233 Morier Circle, Rancho Cordova, CA 95742  
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\*2025 Conditions Configuration



LEGEND	
#	Study Intersection
STOP	Stop Controlled Study Intersection
Light symbol	Signalized Study Intersection
F	Free Movement
Dashed box	Project Location

**Francisco Drive** is a north-south collector roadway that provides access to residential areas north of Green Valley Road and connects with El Dorado Hills Boulevard to the south. Francisco Drive has one travel lane in each direction and serves as a primary southern connection between El Dorado Hills Boulevard and Green Valley Road for vehicles destined for, and coming from points to the west.

**Cambria Way** and **Embarcadero Drive** are two-lane local roadways that provide access to residential areas surrounding Francisco Drive. The proposed project has direct access to Cambria Way.

## ASSESSMENT OF PROPOSED PROJECT

### Proposed Project Trip Generation

Memory care living 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, 9<sup>th</sup> Edition* based on the “Assisted Living” category (ITE Land Use 254). “Assisted Living” is understood to represent residential settings that provide assistance to mentally or physically limited persons, typically with Alzheimer’s or ALS, similar to the proposed project. As noted in the *Trip Generation Manual*, employees, visitors, and delivery trucks make most of the trips to these facilities. Truck traffic was captured for some of the studies used in developing the ITE rates, and the findings indicate that truck traffic volume was very low overall, with most trips occurring in the weekday midday period. The anticipated trip generation for this project is shown in **Table 1**.

**Table 1 – Proposed Project Trip Generation**

Land Use (ITE Code)	Size (# beds)	Daily Trips	AM Peak-Hour				PM Peak-Hour					
			Total Trips	IN		OUT		Total Trips	IN		OUT	
				%	Trips	%	Trips		%	Trips	%	Trips
Assisted Living (254)	64	172	9	65%	6	35%	3	14	44%	6	56%	8
<b>Net New External Trips:</b>		<b>172</b>	<b>9</b>		<b>6</b>		<b>3</b>	<b>14</b>		<b>6</b>		<b>8</b>

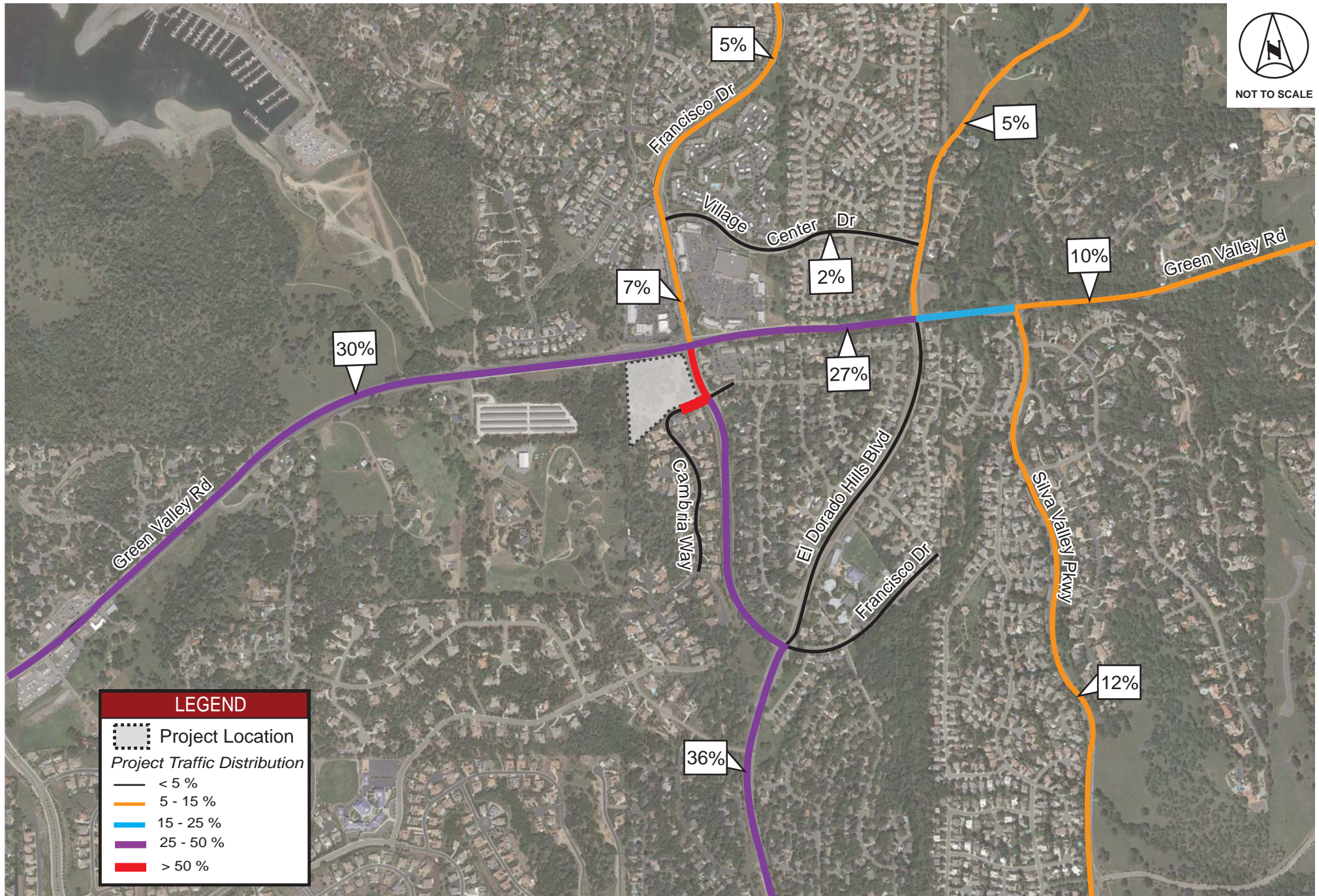
Source: *Trip Generation Manual, 9<sup>th</sup> Edition*, ITE.

As shown in **Table 1**, the proposed project is estimated to generate 172 total new daily trips, with 9 new trips occurring during the AM peak-hour, and 14 new trips occurring during the PM peak-hour. For additional reference, the maximum peak hour trip generation for the facility, which is anticipated to occur on Sunday afternoons, was estimated to be 23 peak hour trips.

### Proposed Project Trip Distribution

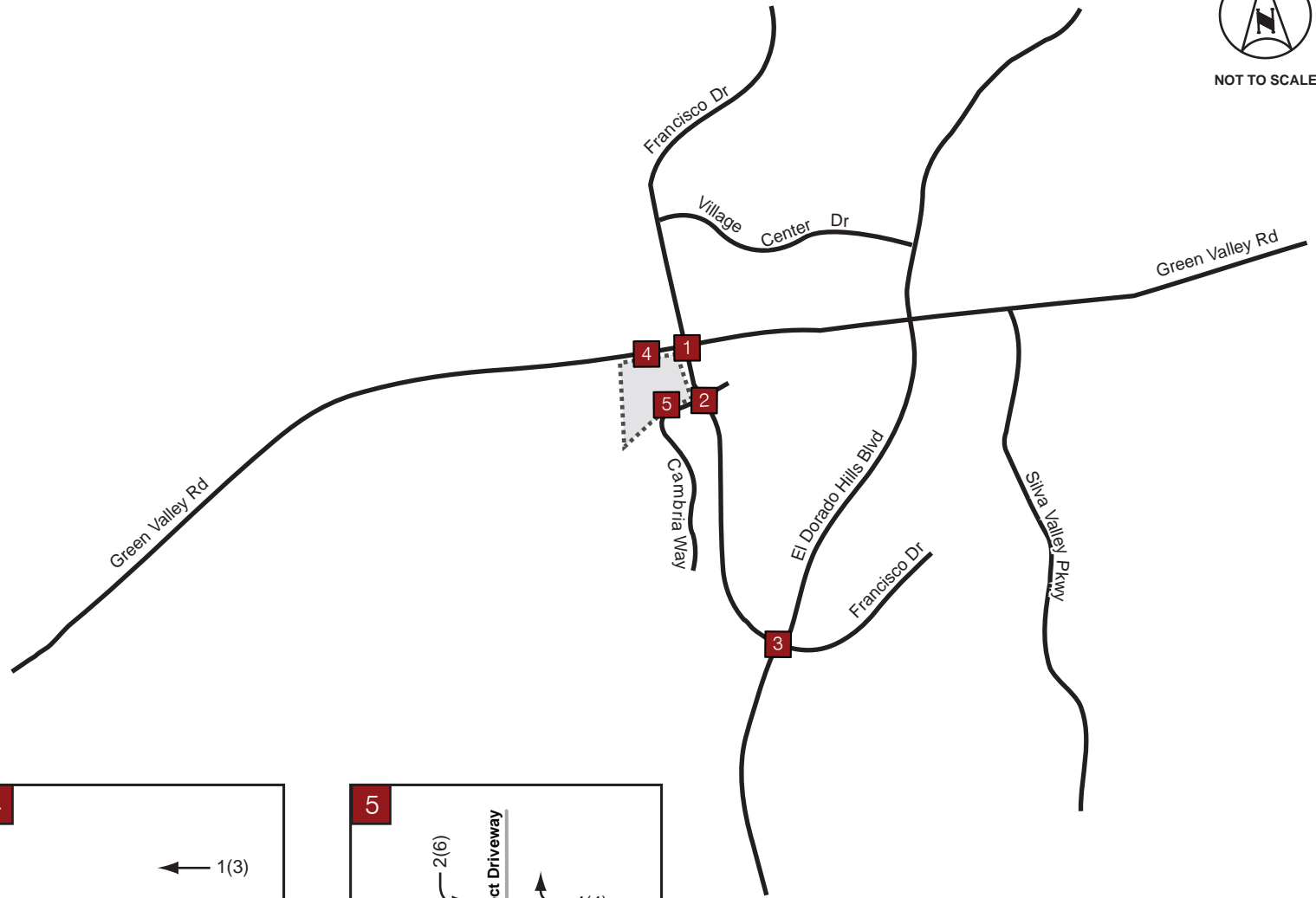
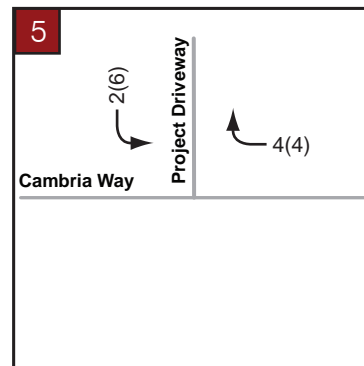
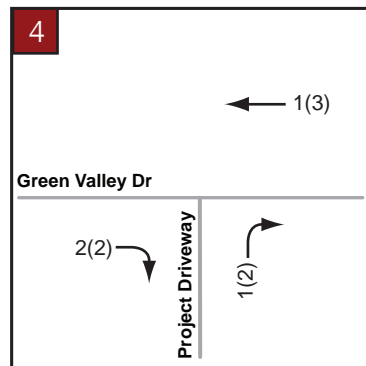
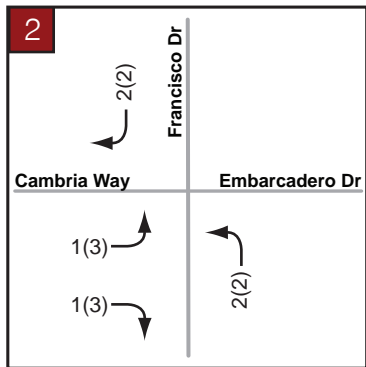
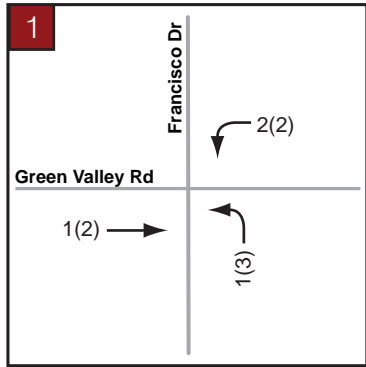
The distribution of project traffic was based on existing traffic volumes and general knowledge of the travel patterns in western El Dorado County. The project trip distribution percentages are illustrated in **Figure 4**. The resulting AM and PM peak-hour traffic volumes attributed to the proposed project are illustrated in **Figure 5**.

# El Dorado Hills Memory Care Center: Traffic Impact Analysis





NOT TO SCALE



LEGEND	
#	Study Intersection
XX(YY)	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.

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

### Consistency with General Plan Land Use Designation

As confirmed by a representative of the County<sup>4</sup>, the County’s current Travel Demand Model (TDM) incorporates non-residential growth for the subject parcel within the project’s Traffic Analysis Zone (TAZ #614). Because the project (20 employees, 64 beds) is less intensive than what is currently included in the County’s TDM (a total of 48 non-retail employees), new Cumulative (2035) analyses are not required to be completed as part of this study.

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 (2015) Conditions
- B. Existing (2015) plus Proposed Project Conditions
- C. Near-Term (2025) Conditions
- D. Near-Term (2025) plus Proposed Project Conditions

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

<sup>4</sup> Email from Chirag Safi, Kittelson & Associates, Inc., April 15, 2015.

## EXISTING (2015) CONDITIONS

Recent peak-hour traffic volumes for the Green Valley Road intersection with Francisco Drive intersection were obtained from a recent study completed, by others, for the Green Valley Road Corridor<sup>5</sup>. Two (2) new weekday AM and PM peak period intersection turning movement traffic counts were conducted in March 2015, for the Francisco Drive intersections with Cambria Way/Embarcadero Drive and El Dorado Hills Boulevard. These counts were conducted between the hours of 6:30 a.m. and 9:30 a.m. and 3:30 p.m. and 6:30 p.m. It is worth noting that a two percent heavy vehicle factor was incorporated in this, and all subsequent analysis scenarios. At the time of this study, the El Dorado Hills Boulevard intersection with Francisco Drive was under construction to implement the County’s Capital Improvement Project (CIP) #71358 (Francisco Drive Right-Turn Pocket). This project involves the addition of an eastbound right-turn lane from Francisco Drive and a complementary southbound receiving lane onto El Dorado Hills Boulevard. These improvements are reflected in all subsequent analysis scenarios.

Existing (2015) peak-hour turn movement volumes are presented in **Figure 6**, and the traffic count data sheets are provided in **Appendix A**. **Table 3** presents the peak-hour intersection operating conditions for this analysis scenario.

**Table 3 – Existing (2015) Intersection Levels of Service**

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour	
			Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	Signal	43.7	D	29.9	C
2	Francisco Drive @ Cambria Way/Embarcadero Drive	SSSC*	36.2 (EB)	E	34.5 (EB)	D
3	El Dorado Hills Boulevard @ Francisco Drive	AWSC	<b>54.0</b>	<b>F</b>	48.7	E
4	Green Valley Road @ Project Site Access Driveway	SSSC*	<i>Plus Project Analysis Scenarios Only</i>			
5	Cambria Way @ Project Site Access Driveway	SSSC*				
* Control delay for worst minor approach (worst minor movement) for SSSC. <b>Bold = Substandard per County</b>						

As indicated in **Table 3**, the study intersections operate from LOS C to LOS F during the AM and PM peak-hours. Analysis worksheets for this scenario are provided in **Appendix B**.

<sup>5</sup> Final Corridor Analysis Report, Green Valley Road, Kittelson & Associates, Inc., October 2014



# El Dorado Hills Memory Care Center: Traffic Impact Analysis

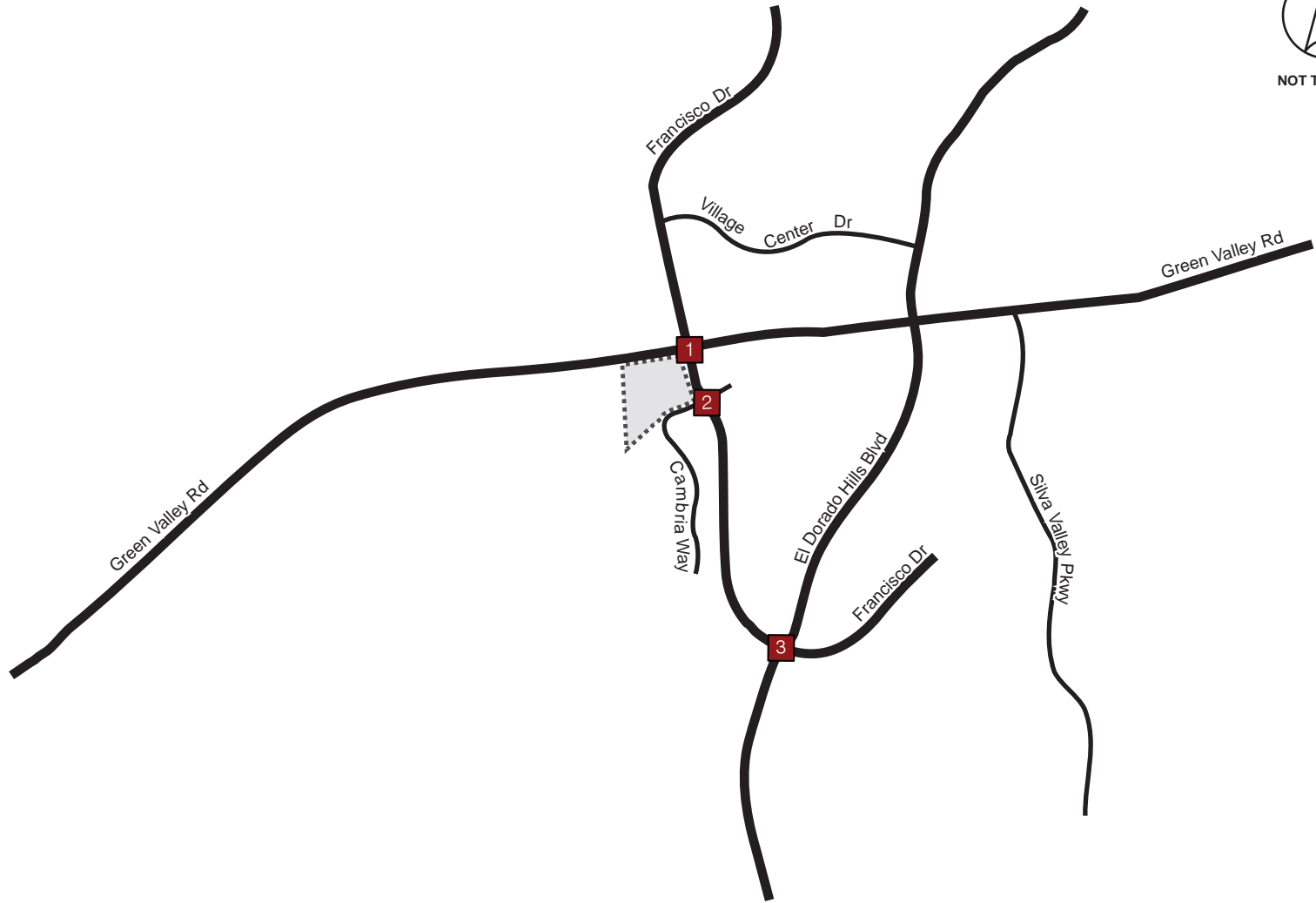


NOT TO SCALE

<b>1</b>		
<b>Green Valley Rd</b>		

<b>2</b>		
<b>Cambria Way</b>		

<b>3</b>		
<b>Francisco Dr</b>		



**LEGEND**

# Study Intersection

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

Note:  
 Counts for Intersection 1 obtained from Quality Counts, LLC conducted on May 6, 2014.  
 Counts for Intersections 2 and 3 obtained from All Traffic Data conducted on March 24, 2015.

## EXISTING (2015) 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. **Table 4** 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 4 – Existing (2015) and Existing (2015) plus Proposed Project Intersection Levels of Service**

#	Intersection	Analysis Scenario <sup>+</sup>	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	Exist.	Signal	43.7	D	29.9	C
		Exist.+PP		43.8	D	30.1	C
2	Francisco Drive @ Cambria Way/Embarcadero Drive	Exist.	SSSC*	36.2 (EB)	E	34.5 (EB)	D
		Exist.+PP		36.2 (EB)	E	35.0 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	Exist.	AWSC	<b>54.0</b>	<b>F</b>	48.7	E
		Exist.+PP		<b>53.8</b>	<b>F</b>	48.8	E
4	Green Valley Road @ Project Site Access Driveway	Exist.	<i>Plus Project Analysis Scenarios Only</i>				
		Exist.+PP	SSSC*	10.4 (NB)	B	17.0 (NB)	C
5	Cambria Way @ Project Site Access Driveway	Exist.	<i>Plus Project Analysis Scenarios Only</i>				
		Exist.+PP	SSSC*	8.7 (SB)	A	8.7 (SB)	A

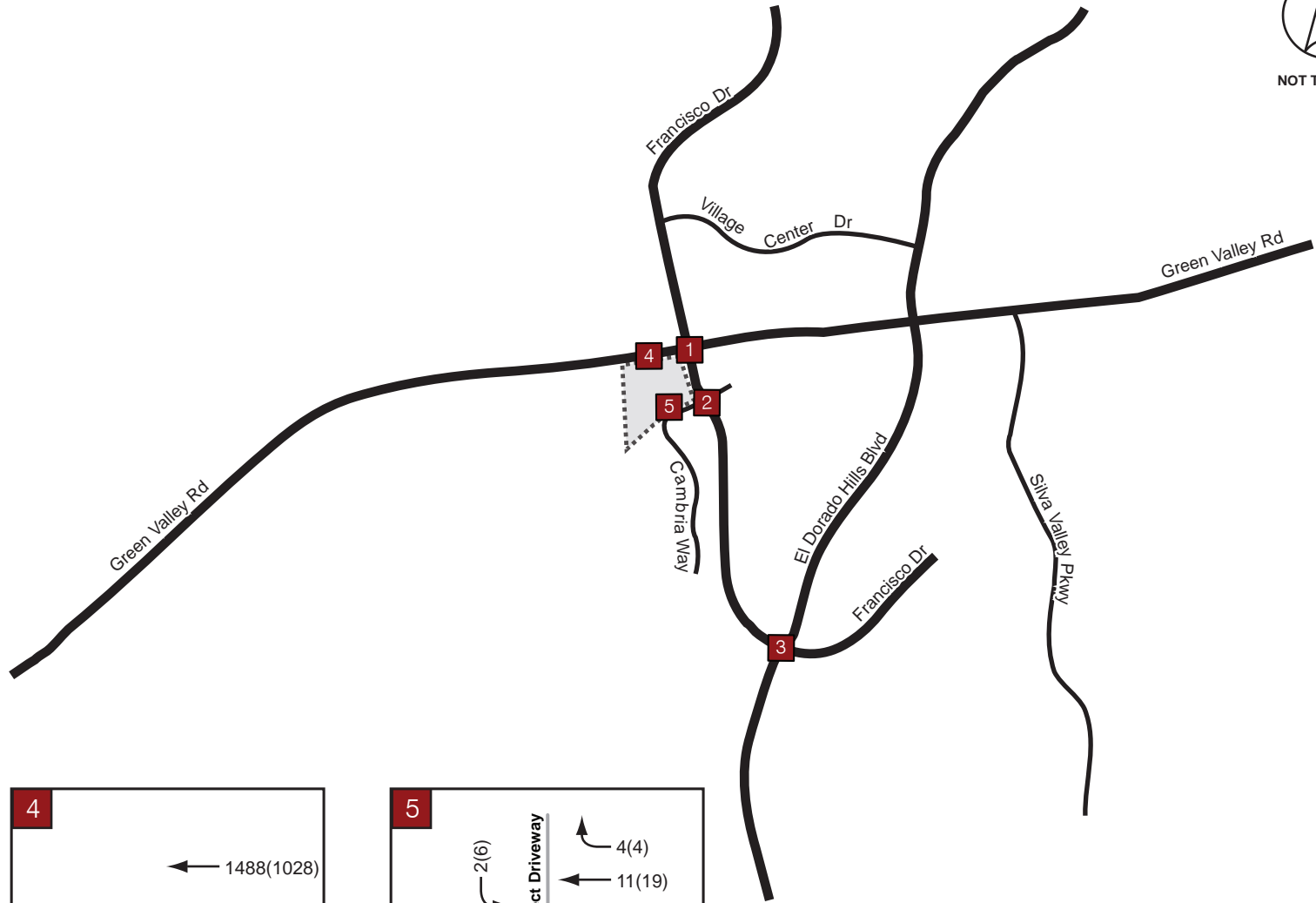
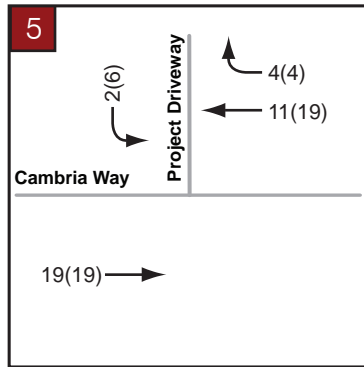
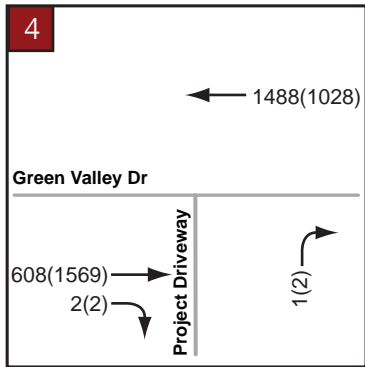
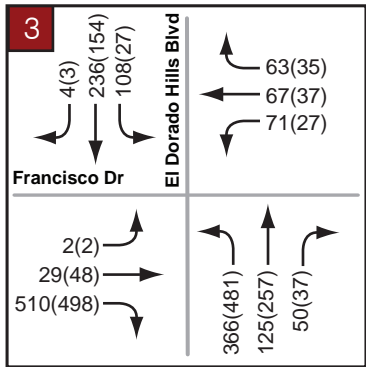
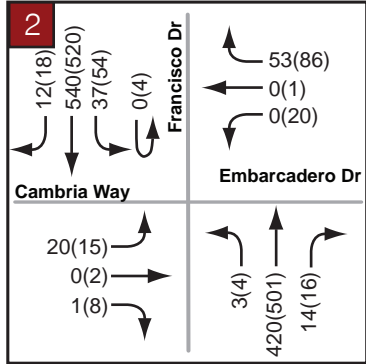
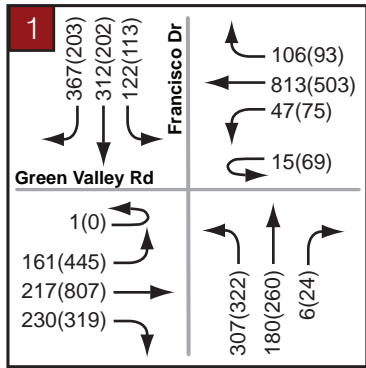
<sup>+</sup> Exist. = Existing (2015), Exist. + PP = Existing (2015) plus Proposed Project  
<sup>\*</sup> Control delay for worst minor approach (worst minor movement) for SSSC. **Bold = Substandard per County**

As indicated in **Table 4**, the study intersections operate from LOS A to LOS F with the addition of project traffic during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in **Appendix C**.

# El Dorado Hills Memory Care Center: Traffic Impact Analysis



NOT TO SCALE



LEGEND	
#	Study Intersection
XX(XX) AM(PM) Peak-Hour Volumes	

## NEAR-TERM (2025) CONDITIONS

Consistent with the traffic forecasting methodology specified by a representative of the County<sup>1</sup>, traffic projections for this study are based on the County’s current Travel Demand Model (TDM)<sup>6</sup> and recently approved 20-year growth projections. These Near-Term, year 2025 conditions are based on a straight-line interpolation between model Existing (2010) and Cumulative (2035) forecast. Details regarding the volume forecasting and intersection turning movement development are presented in **Appendix D**.

**Table 5** provides a summary of the intersection analysis and **Figure 8** provides the AM and PM traffic volumes for this analysis scenario.

**Table 5 – Near-Term (2025) Intersection Levels of Service**

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour	
			Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	Signal	44.6	D	46.3	D
2	Francisco Drive @ Cambria Way/Embarcadero Drive	SSSC*	28.1 (EB)	D	43.6 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	AWSC	39.8	E	46.1	E
4	Green Valley Road @ Project Site Access Driveway	SSSC*	<i>Plus Project Analysis Scenarios Only</i>			
5	Cambria Way @ Project Site Access Driveway	SSSC*				

\* Control delay for worst minor approach (worst minor movement) for SSSC.

As indicated in **Table 5**, the study intersections operate from LOS C to LOS E during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in **Appendix E**.

## NEAR-TERM (2025) PLUS PROPOSED PROJECT CONDITIONS

Peak-hour traffic associated with the proposed project was added to the Near-Term (2015) traffic volumes, and levels of service were determined at the study facilities. **Table 6** 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.

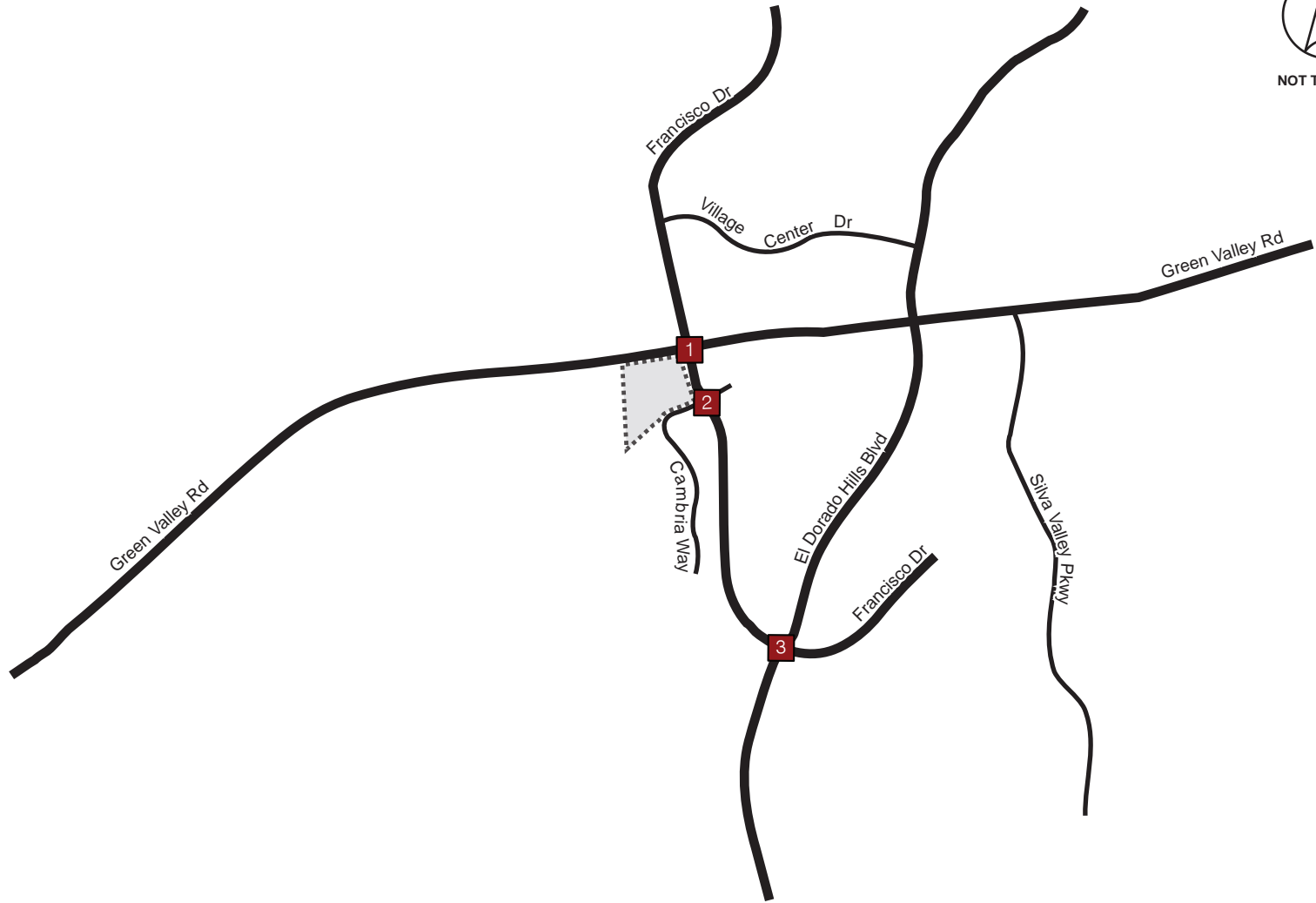
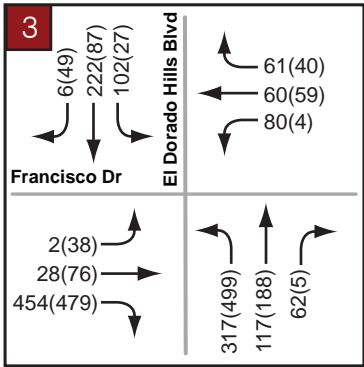
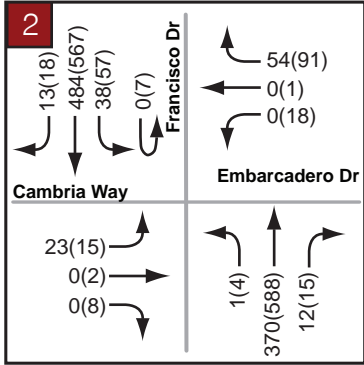
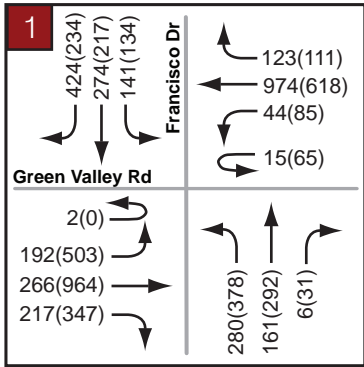
As indicated in **Table 6**, the study intersections operate from LOS A to LOS E during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in **Appendix F**.

<sup>6</sup> As directed by a representative of the County, the Dixon Ranch project was manually added to the County’s 2035 TDM for use in the traffic forecasting efforts for this project.

# El Dorado Hills Memory Care Center: Traffic Impact Analysis



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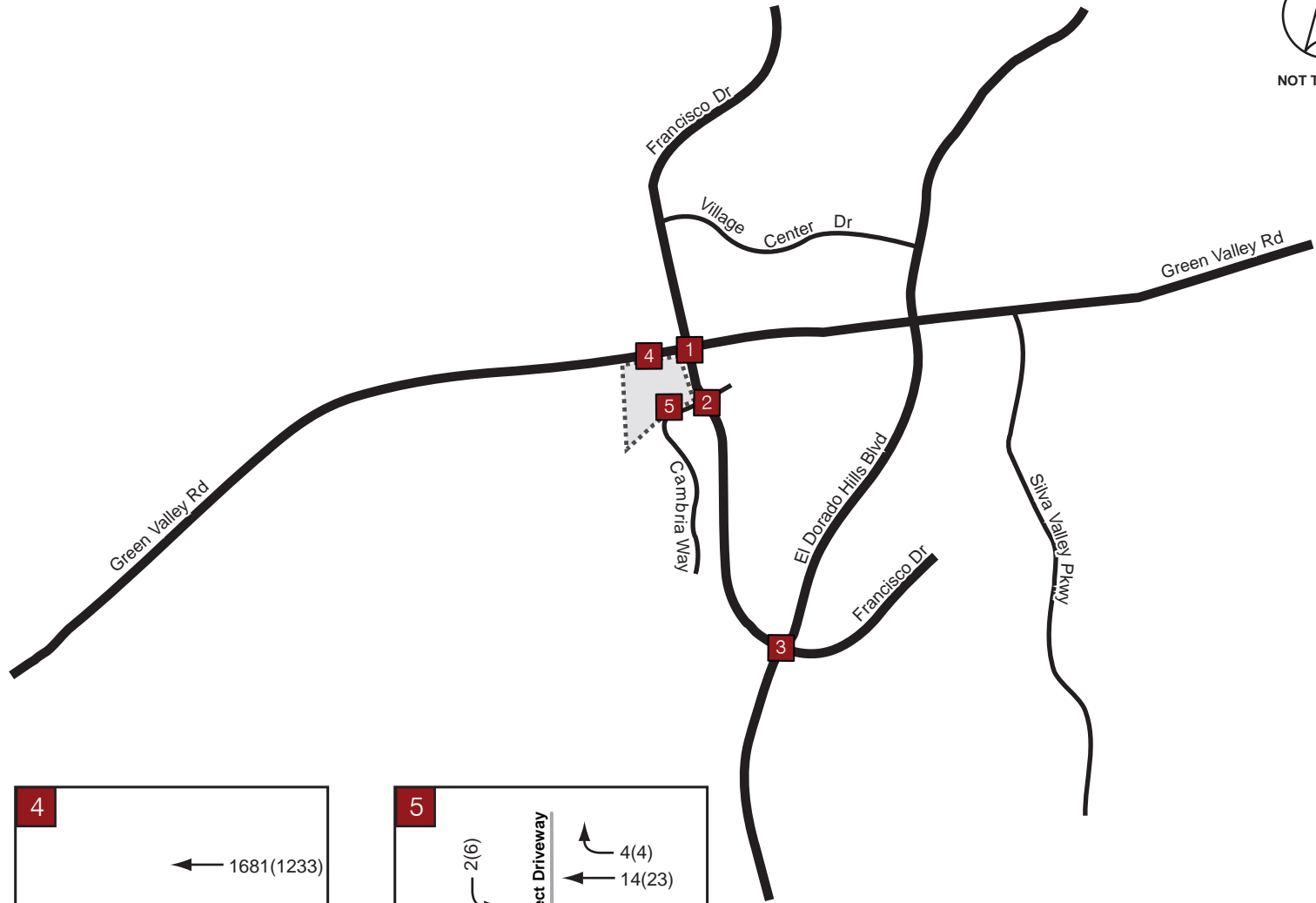
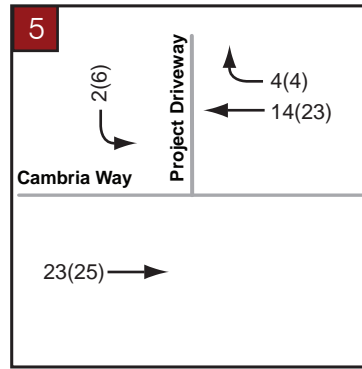
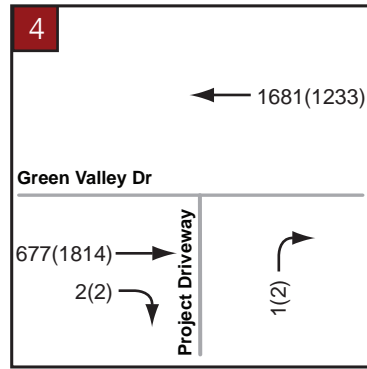
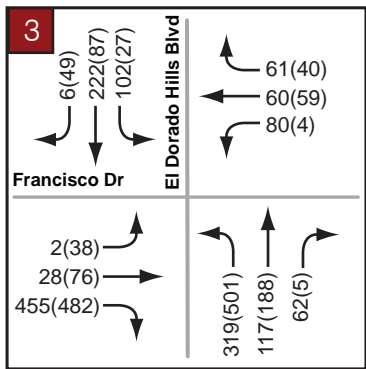
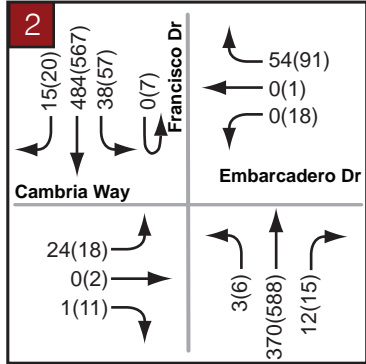
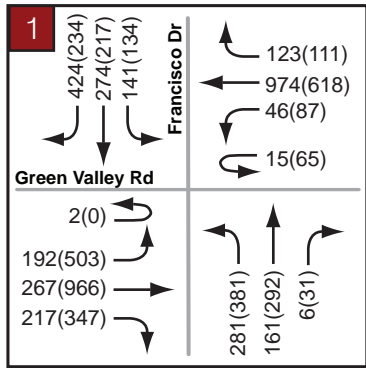


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<span style="background-color: #800000; color: white; padding: 2px;">#</span>	Study Intersection
XX(XX) AM(PM) Peak-Hour Volumes	

# El Dorado Hills Memory Care Center: Traffic Impact Analysis



NOT TO SCALE



LEGEND	
<span style="background-color: #800000; color: white; padding: 2px;">#</span>	Study Intersection
XX(XX) AM(PM) Peak-Hour Volumes	

**Table 6 – Near-Term (2025) and Near-Term (2025) plus Proposed Project Intersection Levels of Service**

#	Intersection	Analysis Scenario <sup>+</sup>	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	NT	Signal	44.6	D	46.3	D
		NT+PP		44.7	D	46.7	D
2	Francisco Drive @ Cambria Way/Embarcadero Drive	NT	SSSC*	28.1 (EB)	D	43.6 (EB)	E
		NT+PP		27.8 (EB)	D	44.1 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	NT	AWSC	39.8	E	46.1	E
		NT+PP		40.0	E	46.6	E
4	Green Valley Road @ Project Site Access Driveway	NT	<i>Plus Project Analysis Scenarios Only</i>				
		NT+PP	SSSC*	10.7 (NB)	B	19.7 (NB)	C
5	Cambria Way @ Project Site Access Driveway	NT	<i>Plus Project Analysis Scenarios Only</i>				
		NT+PP	SSSC*	8.7 (SB)	A	8.8 (SB)	A

<sup>+</sup> NT = Near-Term (2025), NT + PP = NT (2025) plus Proposed Project  
<sup>\*</sup> Control delay for worst minor approach (worst minor movement) for SSSC.

## 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>7</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 intersections 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>8</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.”

<sup>7</sup> *Transportation Impact Study Guidelines*, El Dorado County Community Development Agency, November 2014.

<sup>8</sup> *El Dorado County General Plan, Transportation and Circulation Element*, July 2004.

### Impacts and Mitigation

#### Existing (2015) plus Proposed Project Conditions

As reflected in **Table 4**, the addition of the proposed project does not result in a significant impact as defined by the County.

Impacts:

*None.*

Mitigation:

*None Required.*

#### Near-Term (2025) plus Proposed Project Conditions

As reflected in **Table 6**, the addition of the proposed project does not result in a significant impact as defined by the County.

Impacts:

*None.*

Mitigation:

*None Required.*

### 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 are presented in **Table 7**.

**Table 7 – Traffic Signal Warrant Analysis Results**

#	Intersection	Analysis Scenario			
		Existing (2015)	Existing (2015) plus PP	Near-Term (2025)	Near-Term (2025) plus PP
2	Francisco Dr @ Cambria Wy	No / No	No / No	No / No	No / No
3	El Dorado Hills Blvd @ Francisco Dr	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
4	Cambria Way @ Project Access Dwy		No / No		No / No
5	Green Valley Rd @ Site Access Dwy		No / No		No / No
Results are presented in <b>AM / PM format</b> .					
Note: Peak-hour warrant is satisfied if Condition A or B is met.					

As shown in **Table 7**, intersection #3 (El Dorado Hills Blvd @ Francisco Dr) satisfies the peak-hour signal warrant with and without the addition of the proposed project. However, the proposed project does not cause the peak-hour signal warrant to be satisfied at any of the study intersections. Detailed results of this analysis are presented in **Appendix G**.



### Sight Distance Evaluation

A sight distance evaluation was completed for both site access driveways (Intersections #4 and #5). These evaluations were based on observed horizontal and vertical geometric conditions and were performed in accordance with the guidelines presented in the *Geometric Design of Highways and Streets, 2011*, published by the American Association of State Highway and Transportation Officials (AASHTO).

According to AASHTO, an assumed 30 mph design speed (25 mph posted speed limit) requires a minimum of 200 feet of Stopping Sight Distance (SSD). Adequate SSD was documented along the Cambria Way approaches to the site driveway. Furthermore, an assumed 60 mph design speed (55 mph posted speed limit) requires a minimum of 570 feet of SSD. Adequate sight distance was observed to the left (west) for the Green Valley Road intersection with the site access driveway.

To more thoroughly assess conditions for eastbound Cambria Way traffic at Francisco Drive, we also completed an evaluation of sight distance for this intersection approach. According to AASHTO, an assumed 45 mph design speed (40 mph posted speed limit) requires a minimum of 360-feet of SSD. Adequate AASHTO SSD was documented along the Francisco Drive approaches to Cambria Way. In all cases, roadside vegetation should be maintained to preserve sight distance.

### 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 8**. Analysis sheets that include the anticipated vehicle queues are presented in Appendices B, C, E, and F. As presented in **Table 8**, the addition of the proposed project adds additional queuing to several of the study locations.

### 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 two (2) driveways, one along Cambria Way and one along Green Valley Road. Level of service and delay data was previously reported for these intersections. The combination of these two access points, as well as the on-site circulation system provides adequate access to/from both Green Valley Road and Francisco Drive (via Cambria Way).

The proposed project's Green Valley Road Driveway is proposed to accommodate both right-in and right-out movements. Adequate deceleration distance should be provided and the acceleration distance should be considered as part of the existing eastbound right-turn pocket. The proposed geometrics and access are virtually identical to the existing Safeway center driveway located along the westbound approach to the Green Valley Road intersection with Francisco Drive. Furthermore, as documented in Appendices B, C, E, and F, the northbound right movement from the proposed project is not anticipated to be blocked by the eastbound approach queues at the Green Valley Road intersection with Francisco Drive.

In addition, *Fire Safe Regulations*<sup>9</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.

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<sup>9</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 8 – 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, Green Valley Rd @ Francisco Dr</b>		<b>NB Left</b>			
	Existing (2015)	200 <sup>+</sup>	151	200 <sup>+</sup>	157
	Existing plus Proposed Project (2015)		152		160
	Near-Term (2025)		128		204
	Near-Term plus Proposed Project (2025)		129		205
		<b>WB Left</b>			
	Existing (2015)	200	98	200	259
	Existing plus Proposed Project (2015)		115		261
	Near-Term (2025)		96		269
	Near-Term plus Proposed Project (2025)		100		274
<b>#2, Francisco Dr @ Cambria Way</b>		<b>EB Left</b>			
	Existing (2015)	*	25	*	25
	Existing plus Proposed Project (2015)		25		25
	Near-Term (2025)		25		25
	Near-Term plus Proposed Project (2025)		25		25
<b>#3, Francisco Dr @ El Dorado Hills Blvd</b>		<b>NB Left</b>			
	Existing (2015)	100	303 <sup>++</sup>	100	399 <sup>++</sup>
	Existing plus PP (2015)		305 <sup>++</sup>		401 <sup>++</sup>
	Near-Term (2025)		264 <sup>++</sup>		416 <sup>++</sup>
	Near-Term plus PP (2025)		266 <sup>++</sup>		418 <sup>++</sup>
<b>#4, Green Valley Rd @ Site Dwy</b>		<b>NB</b>			
	Existing (2015)	*		*	
	Existing plus PP (2015)		0		0
	Near-Term (2025)				
	Near-Term plus PP (2025)		0		0
<b>#5, Cambria Wy @ Site Dwy</b>		<b>SB</b>			
	Existing (2015)	*		*	
	Existing plus PP (2015)		0		0
	Near-Term (2025)				
	Near-Term plus PP (2025)		0		0

Source: *Highway Capacity Manual (HCM) 2010* methodology per Synchro<sup>®</sup> v9.  
\* Intersection approach with available storage length equal to segment length; \* Dual left-turn lane; \*\* Source: Per Page 9-127, *A Policy on Geometric Design of Highways and Streets*, AASHTO, 2011. ((Peak-Hour Volume/30 min)\*25 feet)

**Preliminary Traffic Safety Evaluation**

According to the County’s 2011 *Accident Location Study*<sup>10</sup>, several study area sites (i.e., intersections and roadway segments) experienced three (3) or more accidents during a three-year period between January 1, 2009, and December 31, 2011. According to the Study, these sites were selected for investigation and determination of corrective action(s). **Table 9** provides a summary of the study area sites and their selected actions.

According to the *Study*, eight (8) sites “do not require further review at this time. However, these sites will continue to be monitored and any subsequent increase in the frequency of accidents may necessitate further review and analysis.” One (1) site has a pending improvement and it is anticipated that, “upon completion, [this] improvement will substantially reduce the number of accidents.”

<sup>10</sup> *Annual Accident Location Study 2011*, County of El Dorado Department of Transportation, March 18, 2012.

**Table 9 – Project Area Sites Selected for Investigation**

Site #	Location Description	Accident Rate <sup>+</sup>	Identified Action
13	El Dorado Hills Blvd, US 50 On/Off Ramps	1.07	Pending Improvements
14	El Dorado Hills Blvd, North of Lassen/Serrano Pkwy	0.25	None Required
15	El Dorado Hills Blvd, South of Wilson Blvd	0.12	None Required
16	El Dorado Hills Blvd, at Crown Dr	0.24	None Required
20	Green Valley Rd, vicinity of Sophia Pkwy	0.48	None Required
21	Green Valley Rd, vicinity of Amy's Ln	0.18	None Required
22	Green Valley Rd, vicinity of Mormon Island Dr	0.17	None Required
23	Green Valley Rd, vicinity of Silva Valley Pkwy	0.68	None Required
57	Serrano Pkwy, vicinity of El Dorado Hills Blvd	0.32	None Required

Source: *Annual Accident Location Study 2011*, County of El Dorado Department of Transportation, May 18, 2012.  
<sup>+</sup> # Accidents per Million Vehicles (MV) for single sites (intersections/curves), # Accidents per Million Vehicle Miles (MVM) for roadway sections.

**Bicycle and Pedestrian Facilities Evaluation**

According to Chapter 5 of the *El Dorado County Bicycle Transportation Plan*, Class II Bike Lanes are proposed for Green Valley Road, Francisco Drive, and El Dorado Hills Boulevard in the vicinity of the project site. In addition, Class III Bike Routes are proposed for Francisco Drive and Salmon Falls Road/Lakehills Drive north of Green Valley Road. A Class I Bike Path is also proposed for El Dorado Hills Boulevard, south of Francisco Drive.

While the project will not result in removal of a bikeway/bike lane or prohibition of implementation of the facilities identified in the *Plan*, 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 Class II Bike Lanes along Green Valley Road and Francisco Drive. Through these connections to the proposed bike lane network, the project will provide continuity with adjacent projects, schools, parks, and other public facilities.

**CONCLUSIONS**

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

- The proposed project is estimated to generate 172 total new daily trips, with 9 new trips occurring during the AM peak-hour, and 14 new trips occurring during the PM peak-hour.
- The County’s current Travel Demand Model (TDM) incorporates non-residential growth for the subject parcel within the project’s Traffic Analysis Zone (TAZ #614). Because the project (20 employees, 64 beds) is less intensive than what is currently included in the County’s TDM (a total of 48 non-retail employees), new Cumulative (2035) analyses are not required to be completed as part of this study.
- As defined by the County, the addition of the proposed project to the Existing (2015) and Near-Term (2025) scenarios does not worsen conditions at the study intersections. As a result, the project’s potential environmental impacts to transportation facilities are considered to be **less than significant**.

**Appendix A:**

*Traffic Count Data Sheets*

# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-001 Francisco Drive-Embarcadero Drive-Cambria '  
 Date : 3/24/2015

## Unshifted Count = All Vehicles

START TIME	Francisco Drive Southbound					Embarcadero Drive Westbound					Francisco Drive Northbound					Cambria Way Eastbound					Total	Utturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
06:00	0	40	0	0	40	2	0	2	0	4	0	41	0	0	41	1	0	0	0	1	86	0
06:15	2	55	0	1	58	2	0	4	0	6	0	39	0	0	39	1	0	1	0	2	105	1
06:30	1	47	2	0	50	0	0	7	0	7	0	52	0	0	52	0	0	0	0	0	109	0
06:45	1	110	1	0	112	0	0	5	0	5	0	56	0	0	56	2	0	0	0	2	175	0
<b>Total</b>	<b>4</b>	<b>252</b>	<b>3</b>	<b>1</b>	<b>260</b>	<b>4</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>188</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>475</b>	<b>1</b>
07:00	3	130	4	0	137	0	0	9	0	9	0	94	1	0	95	2	0	0	0	2	243	0
07:15	3	102	2	0	107	0	0	14	0	14	2	114	1	0	117	4	0	1	0	5	243	0
07:30	9	154	4	0	167	0	0	15	0	15	1	101	4	0	106	8	0	0	0	8	296	0
07:45	13	111	1	0	125	0	0	7	0	7	0	85	5	0	90	2	0	0	0	2	224	0
<b>Total</b>	<b>28</b>	<b>497</b>	<b>11</b>	<b>0</b>	<b>536</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>45</b>	<b>3</b>	<b>394</b>	<b>11</b>	<b>0</b>	<b>408</b>	<b>16</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>1006</b>	<b>0</b>
08:00	7	144	1	0	152	0	0	14	0	14	0	92	1	0	93	2	0	0	0	2	261	0
08:15	8	131	4	0	143	0	0	12	0	12	0	102	4	0	106	5	0	0	0	5	266	0
08:30	9	109	2	0	120	1	1	15	0	17	0	93	6	0	99	2	1	0	0	3	239	0
08:45	6	105	2	0	113	3	0	14	0	17	1	96	6	0	103	2	1	0	0	3	236	0
<b>Total</b>	<b>30</b>	<b>489</b>	<b>9</b>	<b>0</b>	<b>528</b>	<b>4</b>	<b>1</b>	<b>55</b>	<b>0</b>	<b>60</b>	<b>1</b>	<b>383</b>	<b>17</b>	<b>0</b>	<b>401</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>1002</b>	<b>0</b>
15:00	15	140	3	1	159	4	0	15	0	19	0	119	5	0	124	4	1	1	0	6	308	1
15:15	10	108	6	0	124	3	0	21	0	24	3	130	6	0	139	3	0	2	0	5	292	0
15:30	8	111	2	1	122	7	0	19	0	26	1	118	6	0	125	0	0	2	0	2	275	1
15:45	17	126	1	0	144	5	0	22	0	27	0	114	7	0	121	3	1	0	0	4	296	0
<b>Total</b>	<b>50</b>	<b>485</b>	<b>12</b>	<b>2</b>	<b>549</b>	<b>19</b>	<b>0</b>	<b>77</b>	<b>0</b>	<b>96</b>	<b>4</b>	<b>481</b>	<b>24</b>	<b>0</b>	<b>509</b>	<b>10</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>17</b>	<b>1171</b>	<b>2</b>
16:00	13	128	5	0	146	6	0	19	0	25	1	116	3	0	120	4	0	1	0	5	296	0
16:15	11	127	8	0	146	3	1	12	0	16	0	136	6	0	142	6	0	1	0	7	311	0
16:30	9	111	2	0	122	7	0	17	0	24	0	118	5	0	123	3	0	1	0	4	273	0
16:45	12	127	6	1	146	2	0	17	0	19	1	128	4	0	133	0	1	1	0	2	300	1
<b>Total</b>	<b>45</b>	<b>493</b>	<b>21</b>	<b>1</b>	<b>560</b>	<b>18</b>	<b>1</b>	<b>65</b>	<b>0</b>	<b>84</b>	<b>2</b>	<b>498</b>	<b>18</b>	<b>0</b>	<b>518</b>	<b>13</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>18</b>	<b>1180</b>	<b>1</b>
17:00	15	130	3	1	149	8	0	26	0	34	0	123	4	0	127	4	0	3	0	7	317	1
17:15	15	144	5	0	164	8	0	23	0	31	1	130	6	0	137	3	0	0	0	3	335	0
17:30	12	119	2	2	135	2	1	20	0	23	0	120	2	0	122	5	1	1	0	7	287	2
17:45	12	128	5	1	146	1	0	18	0	19	1	120	4	0	125	1	1	0	0	2	292	1
<b>Total</b>	<b>54</b>	<b>521</b>	<b>15</b>	<b>4</b>	<b>594</b>	<b>19</b>	<b>1</b>	<b>87</b>	<b>0</b>	<b>107</b>	<b>2</b>	<b>493</b>	<b>16</b>	<b>0</b>	<b>511</b>	<b>13</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>19</b>	<b>1231</b>	<b>4</b>
<b>Grand Total</b>	<b>211</b>	<b>2737</b>	<b>71</b>	<b>8</b>	<b>3027</b>	<b>64</b>	<b>3</b>	<b>347</b>	<b>0</b>	<b>414</b>	<b>12</b>	<b>2437</b>	<b>86</b>	<b>0</b>	<b>2535</b>	<b>67</b>	<b>7</b>	<b>15</b>	<b>0</b>	<b>89</b>	<b>6065</b>	<b>8</b>
Apprch %	7.0%	90.4%	2.3%	0.3%		15.5%	0.7%	83.8%	0.0%		0.5%	96.1%	3.4%	0.0%		75.3%	7.9%	16.9%	0.0%			
Total %	3.5%	45.1%	1.2%	0.1%	49.9%	1.1%	0.0%	5.7%	0.0%	6.8%	0.2%	40.2%	1.4%	0.0%	41.8%	1.1%	0.1%	0.2%	0.0%	1.5%	100.0%	

# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-001 Francisco Drive-Embarcadero Drive-Cambria '  
 Date : 3/24/2015

## Unshifted Count = All Vehicles

AM PEAK HOUR	Francisco Drive Southbound					Embarcadero Drive Westbound					Francisco Drive Northbound					Cambria Way Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	9	154	4	0	167	0	0	15	0	15	1	101	4	0	106	8	0	0	0	8	296
07:45	13	111	1	0	125	0	0	7	0	7	0	85	5	0	90	2	0	0	0	2	224
08:00	7	144	1	0	152	0	0	14	0	14	0	92	1	0	93	2	0	0	0	2	261
08:15	8	131	4	0	143	0	0	12	0	12	0	102	4	0	106	5	0	0	0	5	266
Total Volume	37	540	10	0	587	0	0	48	0	48	1	380	14	0	395	17	0	0	0	17	1047
% App Total	6.3%	92.0%	1.7%	0.0%		0.0%	0.0%	100.0%	0.0%		0.3%	96.2%	3.5%	0.0%		100.0%	0.0%	0.0%	0.0%		
PHF	.712	.877	.625	.000	.879	.000	.000	.800	.000	.800	.250	.931	.700	.000	.932	.531	.000	.000	.000	.531	.884

PM PEAK HOUR	Francisco Drive Southbound					Embarcadero Drive Westbound					Francisco Drive Northbound					Cambria Way Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	12	127	6	1	146	2	0	17	0	19	1	128	4	0	133	0	1	1	0	2	300
17:00	15	130	3	1	149	8	0	26	0	34	0	123	4	0	127	4	0	3	0	7	317
17:15	15	144	5	0	164	8	0	23	0	31	1	130	6	0	137	3	0	0	0	3	335
17:30	12	119	2	2	135	2	1	20	0	23	0	120	2	0	122	5	1	1	0	7	287
Total Volume	54	520	16	4	594	20	1	86	0	107	2	501	16	0	519	12	2	5	0	19	1239
% App Total	9.1%	87.5%	2.7%	0.7%		18.7%	0.9%	80.4%	0.0%		0.4%	96.5%	3.1%	0.0%		63.2%	10.5%	26.3%	0.0%		
PHF	.900	.903	.667	.500	.905	.625	.250	.827	.000	.787	.500	.963	.667	.000	.947	.600	.500	.417	.000	.679	.925

# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-002 El Dorado Hills Boulevard-Francisco Drive.ppc

Date : 3/24/2015

## Unshifted Count = All Vehicles

START TIME	El Dorado Hills Boulevard Southbound					Francisco Drive Westbound					El Dorado Hills Boulevard Northbound					Francisco Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
06:00	1	23	0	0	24	2	3	0	0	5	36	6	0	0	42	0	1	43	0	44	115	0
06:15	0	51	0	0	51	5	5	0	0	10	41	5	0	0	46	0	1	58	0	59	166	0
06:30	1	46	0	0	47	0	3	1	0	4	43	4	1	0	48	0	2	42	0	44	143	0
06:45	2	62	0	0	64	5	7	1	0	13	56	14	4	0	74	0	2	103	0	105	256	0
<b>Total</b>	<b>4</b>	<b>182</b>	<b>0</b>	<b>0</b>	<b>186</b>	<b>12</b>	<b>18</b>	<b>2</b>	<b>0</b>	<b>32</b>	<b>176</b>	<b>29</b>	<b>5</b>	<b>0</b>	<b>210</b>	<b>0</b>	<b>6</b>	<b>246</b>	<b>0</b>	<b>252</b>	<b>680</b>	<b>0</b>
07:00	5	89	0	0	94	13	7	4	0	24	85	20	2	0	107	0	0	132	0	132	357	0
07:15	5	79	0	0	84	10	18	2	0	30	97	43	2	0	142	0	5	97	0	102	358	0
07:30	22	76	1	0	99	10	12	2	0	24	95	20	3	0	118	0	6	144	0	150	391	0
07:45	19	81	0	0	100	9	13	6	0	28	75	26	3	0	104	0	9	106	0	115	347	0
<b>Total</b>	<b>51</b>	<b>325</b>	<b>1</b>	<b>0</b>	<b>377</b>	<b>42</b>	<b>50</b>	<b>14</b>	<b>0</b>	<b>106</b>	<b>352</b>	<b>109</b>	<b>10</b>	<b>0</b>	<b>471</b>	<b>0</b>	<b>20</b>	<b>479</b>	<b>0</b>	<b>499</b>	<b>1453</b>	<b>0</b>
08:00	12	68	0	0	80	5	11	6	0	22	83	21	8	0	112	1	5	123	0	129	343	0
08:15	23	69	0	0	92	16	10	11	0	37	99	39	10	0	148	1	4	139	0	144	421	0
08:30	65	52	1	0	118	20	18	24	0	62	78	35	23	0	136	0	12	95	0	107	423	0
08:45	8	47	2	0	57	30	24	22	0	76	79	30	9	0	118	0	5	104	0	109	360	0
<b>Total</b>	<b>108</b>	<b>236</b>	<b>3</b>	<b>0</b>	<b>347</b>	<b>71</b>	<b>63</b>	<b>63</b>	<b>0</b>	<b>197</b>	<b>339</b>	<b>125</b>	<b>50</b>	<b>0</b>	<b>514</b>	<b>2</b>	<b>26</b>	<b>461</b>	<b>0</b>	<b>489</b>	<b>1547</b>	<b>0</b>
15:00	20	38	1	0	59	14	25	32	0	71	101	87	7	0	195	0	11	120	0	131	456	0
15:15	11	32	2	0	45	9	13	14	0	36	124	71	6	0	201	2	11	114	0	127	409	0
15:30	2	38	1	0	41	2	13	4	0	19	112	51	4	0	167	0	7	120	0	127	354	0
15:45	5	37	1	0	43	9	8	3	0	20	117	64	5	0	186	0	12	116	0	128	377	0
<b>Total</b>	<b>38</b>	<b>145</b>	<b>5</b>	<b>0</b>	<b>188</b>	<b>34</b>	<b>59</b>	<b>53</b>	<b>0</b>	<b>146</b>	<b>454</b>	<b>273</b>	<b>22</b>	<b>0</b>	<b>749</b>	<b>2</b>	<b>41</b>	<b>470</b>	<b>0</b>	<b>513</b>	<b>1596</b>	<b>0</b>
16:00	1	31	1	0	33	0	9	11	0	20	108	72	9	0	189	3	10	123	0	136	378	0
16:15	4	41	0	0	45	6	15	5	0	26	124	68	9	0	201	2	8	113	0	123	395	0
16:30	9	41	1	0	51	7	10	7	0	24	113	65	4	0	182	1	16	109	0	126	383	0
16:45	4	44	1	0	49	5	6	3	0	14	123	59	7	0	189	0	14	116	0	130	382	0
<b>Total</b>	<b>18</b>	<b>157</b>	<b>3</b>	<b>0</b>	<b>178</b>	<b>18</b>	<b>40</b>	<b>26</b>	<b>0</b>	<b>84</b>	<b>468</b>	<b>264</b>	<b>29</b>	<b>0</b>	<b>761</b>	<b>6</b>	<b>48</b>	<b>461</b>	<b>0</b>	<b>515</b>	<b>1538</b>	<b>0</b>
17:00	4	33	0	0	37	10	14	12	0	36	114	74	16	0	204	1	8	128	0	137	414	0
17:15	10	36	1	0	47	5	7	13	0	25	126	59	10	0	195	0	10	141	0	151	418	0
17:30	5	46	0	0	51	7	15	6	0	28	115	56	5	0	176	3	12	107	0	122	377	0
17:45	1	30	0	0	31	2	5	5	0	12	117	70	3	0	190	0	14	104	0	118	351	0
<b>Total</b>	<b>20</b>	<b>145</b>	<b>1</b>	<b>0</b>	<b>166</b>	<b>24</b>	<b>41</b>	<b>36</b>	<b>0</b>	<b>101</b>	<b>472</b>	<b>259</b>	<b>34</b>	<b>0</b>	<b>765</b>	<b>4</b>	<b>44</b>	<b>480</b>	<b>0</b>	<b>528</b>	<b>1560</b>	<b>0</b>
<b>Grand Total</b>	<b>239</b>	<b>1190</b>	<b>13</b>	<b>0</b>	<b>1442</b>	<b>201</b>	<b>271</b>	<b>194</b>	<b>0</b>	<b>666</b>	<b>2261</b>	<b>1059</b>	<b>150</b>	<b>0</b>	<b>3470</b>	<b>14</b>	<b>185</b>	<b>2597</b>	<b>0</b>	<b>2796</b>	<b>8374</b>	<b>0</b>
Apprch %	16.6%	82.5%	0.9%	0.0%		30.2%	40.7%	29.1%	0.0%		65.2%	30.5%	4.3%	0.0%		0.5%	6.6%	92.9%	0.0%			
Total %	2.9%	14.2%	0.2%	0.0%	17.2%	2.4%	3.2%	2.3%	0.0%	8.0%	27.0%	12.6%	1.8%	0.0%	41.4%	0.2%	2.2%	31.0%	0.0%	33.4%	100.0%	

# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-002 El Dorado Hills Boulevard-Francisco Drive.ppc  
 Date : 3/24/2015

## Unshifted Count = All Vehicles

AM PEAK HOUR	El Dorado Hills Boulevard Southbound					Francisco Drive Westbound					El Dorado Hills Boulevard Northbound					Francisco Drive Eastbound					Total
	START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	12	68	0	0	80	5	11	6	0	22	83	21	8	0	112	1	5	123	0	129	343
08:15	23	69	0	0	92	16	10	11	0	37	99	39	10	0	148	1	4	139	0	144	421
08:30	65	52	1	0	118	20	18	24	0	62	78	35	23	0	136	0	12	95	0	107	423
08:45	8	47	2	0	57	30	24	22	0	76	79	30	9	0	118	0	5	104	0	109	360
Total Volume	108	236	3	0	347	71	63	63	0	197	339	125	50	0	514	2	26	461	0	489	1547
% App Total	31.1%	68.0%	0.9%	0.0%		36.0%	32.0%	32.0%	0.0%		66.0%	24.3%	9.7%	0.0%		0.4%	5.3%	94.3%	0.0%		
PHF	.415	.855	.375	.000	.735	.592	.656	.656	.000	.648	.856	.801	.543	.000	.868	.500	.542	.829	.000	.849	.914

PM PEAK HOUR	El Dorado Hills Boulevard Southbound					Francisco Drive Westbound					El Dorado Hills Boulevard Northbound					Francisco Drive Eastbound					Total
	START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	9	41	1	0	51	7	10	7	0	24	113	65	4	0	182	1	16	109	0	126	383
16:45	4	44	1	0	49	5	6	3	0	14	123	59	7	0	189	0	14	116	0	130	382
17:00	4	33	0	0	37	10	14	12	0	36	114	74	16	0	204	1	8	128	0	137	414
17:15	10	36	1	0	47	5	7	13	0	25	126	59	10	0	195	0	10	141	0	151	418
Total Volume	27	154	3	0	184	27	37	35	0	99	476	257	37	0	770	2	48	494	0	544	1597
% App Total	14.7%	83.7%	1.6%	0.0%		27.3%	37.4%	35.4%	0.0%		61.8%	33.4%	4.8%	0.0%		0.4%	8.8%	90.8%	0.0%		
PHF	.675	.875	.750	.000	.902	.675	.661	.673	.000	.688	.944	.868	.578	.000	.944	.500	.750	.876	.000	.901	.955

























**Appendix B:**

*Analysis Worksheets for  
Existing (2015) Conditions*

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
AM Peak

												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	161	216	230	15	45	813	106	306	180	6	122
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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		1810	1776	1845		1900	1881	1863	1845	1863	1900	1845
Adj Flow Rate, veh/h		199	267	284		52	934	122	364	214	7	158
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		0.81	0.81	0.81		0.87	0.87	0.87	0.84	0.84	0.84	0.77
Percent Heavy Veh, %		5	7	3		0	1	2	3	2	2	3
Cap, veh/h		191	1096	510		67	1090	483	438	1125	37	192
Arrive On Green		0.06	0.32	0.32		0.04	0.30	0.30	0.13	0.32	0.32	0.11
Sat Flow, veh/h		3344	3374	1568		1810	3574	1583	3408	3498	114	1757
Grp Volume(v), veh/h		199	267	284		52	934	122	364	108	113	158
Grp Sat Flow(s),veh/h/ln		1672	1687	1568		1810	1787	1583	1704	1770	1843	1757
Q Serve(g_s), s		5.0	5.1	13.1		2.5	21.6	5.1	9.1	3.9	3.9	7.7
Cycle Q Clear(g_c), s		5.0	5.1	13.1		2.5	21.6	5.1	9.1	3.9	3.9	7.7
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.06	1.00
Lane Grp Cap(c), veh/h		191	1096	510		67	1090	483	438	569	593	192
V/C Ratio(X)		1.04	0.24	0.56		0.78	0.86	0.25	0.83	0.19	0.19	0.82
Avail Cap(c_a), veh/h		191	1096	510		103	1153	511	466	569	593	220
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.4	21.7	24.4		41.9	28.7	23.0	37.3	21.5	21.5	38.3
Incr Delay (d2), s/veh		77.2	0.1	1.4		18.0	6.3	0.3	11.5	0.2	0.2	19.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		4.3	2.4	5.8		1.6	11.6	2.3	5.0	1.9	2.0	4.8
LnGrp Delay(d),s/veh		118.6	21.8	25.8		59.8	35.0	23.2	48.8	21.7	21.7	57.9
LnGrp LOS		F	C	C		E	D	C	D	C	C	E
Approach Vol, veh/h			750				1108			585		
Approach Delay, s/veh			49.0				34.9			38.6		
Approach LOS			D				C			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	34.2	15.3	31.0	9.0	32.4	13.6	32.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.5	15.1	11.1	28.0	7.0	23.6	9.7	5.9				
Green Ext Time (p_c), s	0.0	7.1	0.1	0.0	0.0	3.2	0.1	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.7									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↗
Volume (veh/h)	312	367
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881
Adj Flow Rate, veh/h	405	477
Adj No. of Lanes	1	1
Peak Hour Factor	0.77	0.77
Percent Heavy Veh, %	1	1
Cap, veh/h	568	483
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1881	1599
Grp Volume(v), veh/h	405	477
Grp Sat Flow(s),veh/h/ln	1881	1599
Q Serve(g_s), s	16.8	26.0
Cycle Q Clear(g_c), s	16.8	26.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	568	483
V/C Ratio(X)	0.71	0.99
Avail Cap(c_a), veh/h	568	483
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	27.2	30.4
Incr Delay (d2), s/veh	4.2	37.5
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	16.5
LnGrp Delay(d),s/veh	31.4	68.0
LnGrp LOS	C	E
Approach Vol, veh/h	1040	
Approach Delay, s/veh	52.2	
Approach LOS	D	
<b>Timer</b>		

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing  
 AM Peak

**Intersection**

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	19	0	0	0	0	53	1	420	14	37	540	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	80	80	80	93	93	93	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	0	0	0	0	66	1	452	15	42	614	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1192	1167	614	1159	1159	459	614	0	0	467	0	0
Stage 1	698	698	-	461	461	-	-	-	-	-	-	-
Stage 2	494	469	-	698	698	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	164	194	492	173	196	602	965	-	-	1094	-	-
Stage 1	431	442	-	581	565	-	-	-	-	-	-	-
Stage 2	557	561	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	142	186	492	168	188	602	965	-	-	1094	-	-
Mov Cap-2 Maneuver	142	186	-	168	188	-	-	-	-	-	-	-
Stage 1	431	425	-	580	564	-	-	-	-	-	-	-
Stage 2	495	560	-	414	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.2	11.7	0	0.5
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	965	-	-	142	602	1094	-	-
HCM Lane V/C Ratio	0.001	-	-	0.191	0.11	0.038	-	-
HCM Control Delay (s)	8.7	-	-	36.2	11.7	8.4	-	-
HCM Lane LOS	A	-	-	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.4	0.1	-	-

Intersection												
Intersection Delay, s/veh	54											
Intersection LOS	F											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	29	509	0	71	67	63	0	364	125	50
Peak Hour Factor	0.85	0.85	0.85	0.85	0.70	0.70	0.70	0.70	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	34	599	0	101	96	90	0	418	144	57
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	71.7	33.4	58.8
HCM LOS	F	D	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	35%	100%	0%
Vol Thru, %	0%	71%	5%	33%	0%	98%
Vol Right, %	0%	29%	94%	31%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	175	540	201	108	240
LT Vol	364	0	2	71	108	0
Through Vol	0	125	29	67	0	236
RT Vol	0	50	509	63	0	4
Lane Flow Rate	418	201	635	287	148	329
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.491	1	0.729	0.398	0.838
Departure Headway (Hd)	9.488	8.788	8.13	9.248	9.686	9.174
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	385	412	451	393	374	398
Service Time	7.201	6.501	6.145	7.248	7.386	6.875
HCM Lane V/C Ratio	1.086	0.488	1.408	0.73	0.396	0.827
HCM Control Delay	77.6	19.7	71.7	33.4	18.6	44.6
HCM Lane LOS	F	C	F	D	C	E
HCM 95th-tile Q	11.9	2.6	12.9	5.6	1.9	7.8

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	108	236	4
Peak Hour Factor	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	148	323	5
Number of Lanes	0	1	1	0













**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	36.5
HCM LOS	E

**Lane**

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	200	267	284	69	934	122	364	221	158	405	477	
v/c Ratio	1.22	0.24	0.40	0.61	0.85	0.21	0.78	0.21	0.73	0.78	0.88	
Control Delay	180.8	22.7	4.9	65.5	36.5	5.6	49.4	23.2	58.5	40.1	40.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	180.8	22.7	4.9	65.5	36.5	5.6	49.4	23.2	58.5	40.1	40.0	
Queue Length 50th (ft)	~76	58	0	39	257	0	105	47	88	206	184	
Queue Length 95th (ft)	#125	80	36	#98	318	34	#151	70	#139	252	235	
Internal Link Dist (ft)		357			551			372		463		
Turn Bay Length (ft)	290		210	200		450	200		185			
Base Capacity (vph)	164	1142	718	113	1207	615	487	1158	230	594	600	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	1.22	0.23	0.40	0.61	0.77	0.20	0.75	0.19	0.69	0.68	0.80	

Intersection Summary

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

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
PM Peak

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	445	805	319	69	73	503	93	319	260	24	113	202
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1881	1881		1900	1881	1863	1881	1881	1900	1881	1863
Adj Flow Rate, veh/h	468	847	336		83	572	106	347	283	26	131	235
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95		0.88	0.88	0.88	0.92	0.92	0.92	0.86	0.86
Percent Heavy Veh, %	0	1	1		0	1	2	1	1	1	1	2
Cap, veh/h	516	1296	580		107	982	435	445	804	73	165	385
Arrive On Green	0.15	0.36	0.36		0.06	0.27	0.27	0.13	0.24	0.24	0.09	0.21
Sat Flow, veh/h	3510	3574	1599		1810	3574	1583	3476	3313	302	1792	1863
Grp Volume(v), veh/h	468	847	336		83	572	106	347	152	157	131	235
Grp Sat Flow(s),veh/h/ln	1755	1787	1599		1810	1787	1583	1738	1787	1828	1792	1863
Q Serve(g_s), s	9.8	14.8	12.7		3.4	10.3	3.9	7.2	5.3	5.3	5.4	8.6
Cycle Q Clear(g_c), s	9.8	14.8	12.7		3.4	10.3	3.9	7.2	5.3	5.3	5.4	8.6
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.17	1.00	
Lane Grp Cap(c), veh/h	516	1296	580		107	982	435	445	434	444	165	385
V/C Ratio(X)	0.91	0.65	0.58		0.78	0.58	0.24	0.78	0.35	0.35	0.79	0.61
Avail Cap(c_a), veh/h	516	1520	680		121	1233	546	558	645	660	192	573
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	19.9	19.2		34.7	23.4	21.1	31.6	23.4	23.5	33.3	26.9
Incr Delay (d2), s/veh	19.6	0.8	0.9		23.9	0.6	0.3	5.5	0.5	0.5	17.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	7.4	5.7		2.4	5.2	1.7	3.8	2.6	2.7	3.5	4.5
LnGrp Delay(d),s/veh	51.0	20.7	20.1		58.6	24.0	21.4	37.1	23.9	23.9	51.0	28.5
LnGrp LOS	D	C	C		E	C	C	D	C	C	D	C
Approach Vol, veh/h		1651				761			656			602
Approach Delay, s/veh		29.2				27.4			30.9			34.2
Approach LOS		C				C			C			C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	32.8	13.6	20.0	15.0	26.2	10.9	22.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	5.4	16.8	9.2	12.4	11.8	12.3	7.4	7.3				
Green Ext Time (p_c), s	0.0	8.8	0.4	3.1	0.0	8.2	0.0	4.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			29.9									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved ignoring U-Turning movement.												



Movement	SBR
Lane Configurations	7
Volume (veh/h)	203
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	236
Adj No. of Lanes	1
Peak Hour Factor	0.86
Percent Heavy Veh, %	2
Cap, veh/h	327
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	236
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	10.4
Cycle Q Clear(g_c), s	10.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	327
V/C Ratio(X)	0.72
Avail Cap(c_a), veh/h	487
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	27.7
Incr Delay (d2), s/veh	3.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.8
LnGrp Delay(d),s/veh	30.7
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing  
 PM Peak

**Intersection**

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	12	2	5	20	1	86	2	501	16	4	54	520	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	70	70	70	79	79	79	95	95	95	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	3	7	25	1	109	2	527	17	4	59	571	18

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1285	1247	571	1235	1239	540	571	0	0	653	544	0	0
Stage 1	690	699	-	540	540	-	-	-	-	-	-	-	-
Stage 2	595	548	-	695	699	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	142	173	520	153	175	542	1002	-	-	-	1025	-	-
Stage 1	435	442	-	526	521	-	-	-	-	-	-	-	-
Stage 2	491	517	-	433	442	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	113	173	520	149	175	542	1002	-	-	~ -15	~ -15	-	-
Mov Cap-2 Maneuver	113	173	-	149	175	-	-	-	-	-	-	-	-
Stage 1	434	442	-	525	520	-	-	-	-	-	-	-	-
Stage 2	391	516	-	424	442	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.5	21	0	
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1002	-	-	149	358	+	-	-
HCM Lane V/C Ratio	0.002	-	-	0.182	0.378	-	-	-
HCM Control Delay (s)	8.6	-	-	34.5	21	-	-	-
HCM Lane LOS	A	-	-	D	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	1.7	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Intersection Delay, s/veh	48.7											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	48	495	0	27	37	35	0	479	257	37
Peak Hour Factor	0.90	0.90	0.90	0.90	0.70	0.70	0.70	0.70	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	53	550	0	39	53	50	0	510	273	39
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	63	14.7	52.2
HCM LOS	F	B	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	27%	100%	0%
Vol Thru, %	0%	87%	9%	37%	0%	98%
Vol Right, %	0%	13%	91%	35%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	479	294	545	99	27	157
LT Vol	479	0	2	27	27	0
Through Vol	0	257	48	37	0	154
RT Vol	0	37	495	35	0	3
Lane Flow Rate	510	313	606	141	30	174
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.636	1	0.314	0.074	0.403
Departure Headway (Hd)	7.914	7.326	6.324	7.981	8.836	8.323
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	459	491	575	451	406	433
Service Time	5.669	5.081	4.385	6.029	6.575	6.062
HCM Lane V/C Ratio	1.111	0.637	1.054	0.313	0.074	0.402
HCM Control Delay	70.6	22.1	63	14.7	12.3	16.6
HCM Lane LOS	F	C	F	B	B	C
HCM 95th-tile Q	13	4.4	14.5	1.3	0.2	1.9

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	154	3
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	30	171	3
Number of Lanes	0	1	1	0













**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	16
HCM LOS	C

**Lane**

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
PM Peak






















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	468	847	336	161	572	106	347	309	131	235	236	
v/c Ratio	0.91	0.71	0.44	1.61	0.63	0.20	0.67	0.35	0.68	0.62	0.46	
Control Delay	58.3	26.1	4.5	348.1	28.8	2.0	40.1	24.3	56.8	36.3	7.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	58.3	26.1	4.5	348.1	28.8	2.0	40.1	24.3	56.8	36.3	7.2	
Queue Length 50th (ft)	117	183	0	~115	127	0	81	61	62	104	0	
Queue Length 95th (ft)	#252	278	55	#259	192	9	#157	102	#162	176	48	
Internal Link Dist (ft)		357			551			372		463		
Turn Bay Length (ft)	290		210	200		450	200		185			
Base Capacity (vph)	517	1526	875	100	1238	655	558	1286	192	575	652	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.91	0.56	0.38	1.61	0.46	0.16	0.62	0.24	0.68	0.41	0.36	

Intersection Summary

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





El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
AM Peak

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%				0%			0%		
Storage Length (ft)		290		210		200		450	200		0	185
Storage Lanes		2		0		1		1	2		0	1
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00
Ped Bike Factor												
Frt				0.850				0.850		0.995		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3336	3374	1568	0	1805	3574	1583	3400	3522	0	1752
Flt Permitted		0.784							0.950			0.950
Satd. Flow (perm)	0	2753	3374	1568	0	1900	3574	1583	3400	3522	0	1752
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				284				122		4		
Link Speed (mph)			50				50			30		
Link Distance (ft)			437				631			452		
Travel Time (s)			6.0				8.6			10.3		

Intersection Summary




















Area Type: Other

		
Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1881	1599
Flt Permitted		
Satd. Flow (perm)	1881	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		139
Link Speed (mph)	30	
Link Distance (ft)	543	
Travel Time (s)	12.3	

Intersection Summary

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing  
 AM Peak



















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.865			0.995				0.850
Flt Protected		0.950					0.950			0.950		
Satd. Flow (prot)	0	1770	0	0	1611	0	1770	1853	0	1770	1863	1583
Flt Permitted		0.950					0.950			0.950		
Satd. Flow (perm)	0	1770	0	0	1611	0	1770	1853	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			452			452	
Travel Time (s)		6.0			16.4			10.3			10.3	

Intersection Summary

Area Type: Other

El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Existing  
 AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.873			0.958			0.957			0.998	
Flt Protected					0.983		0.950			0.950		
Satd. Flow (prot)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Flt Permitted					0.983		0.950			0.950		
Satd. Flow (perm)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		2100			982			1162			698	
Travel Time (s)		47.7			22.3			17.6			10.6	























Intersection Summary

Area Type: Other



**Appendix C:**

*Analysis Worksheets for  
Existing (2015) plus Proposed Project Conditions*

												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	161	217	230	15	47	813	106	307	180	6	122
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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		1810	1776	1845		1900	1881	1863	1845	1863	1900	1845
Adj Flow Rate, veh/h		199	268	284		54	934	122	365	214	7	158
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		0.81	0.81	0.81		0.87	0.87	0.87	0.84	0.84	0.84	0.77
Percent Heavy Veh, %		5	7	3		0	1	2	3	2	2	3
Cap, veh/h		190	1092	508		69	1091	483	439	1125	37	192
Arrive On Green		0.06	0.32	0.32		0.04	0.31	0.31	0.13	0.32	0.32	0.11
Sat Flow, veh/h		3344	3374	1568		1810	3574	1583	3408	3498	114	1757
Grp Volume(v), veh/h		199	268	284		54	934	122	365	108	113	158
Grp Sat Flow(s),veh/h/ln		1672	1687	1568		1810	1787	1583	1704	1770	1843	1757
Q Serve(g_s), s		5.0	5.1	13.1		2.6	21.6	5.1	9.2	3.9	3.9	7.7
Cycle Q Clear(g_c), s		5.0	5.1	13.1		2.6	21.6	5.1	9.2	3.9	3.9	7.7
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.06	1.00
Lane Grp Cap(c), veh/h		190	1092	508		69	1091	483	439	569	592	192
V/C Ratio(X)		1.04	0.25	0.56		0.78	0.86	0.25	0.83	0.19	0.19	0.82
Avail Cap(c_a), veh/h		190	1092	508		103	1152	510	466	569	592	220
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.4	21.8	24.5		41.8	28.7	23.0	37.3	21.5	21.5	38.3
Incr Delay (d2), s/veh		77.5	0.1	1.4		19.3	6.3	0.3	11.6	0.2	0.2	19.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		4.3	2.4	5.8		1.7	11.6	2.3	5.0	1.9	2.0	4.8
LnGrp Delay(d),s/veh		118.9	21.9	25.9		61.2	35.0	23.2	48.9	21.7	21.7	58.0
LnGrp LOS		F	C	C		E	C	C	D	C	C	E
Approach Vol, veh/h			751				1110			586		
Approach Delay, s/veh			49.1				35.0			38.7		
Approach LOS			D				C			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	34.1	15.3	31.0	9.0	32.5	13.6	32.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.6	15.1	11.2	28.1	7.0	23.6	9.7	5.9				
Green Ext Time (p_c), s	0.0	7.1	0.1	0.0	0.0	3.2	0.1	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.8									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↑
Volume (veh/h)	312	367
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881
Adj Flow Rate, veh/h	405	477
Adj No. of Lanes	1	1
Peak Hour Factor	0.77	0.77
Percent Heavy Veh, %	1	1
Cap, veh/h	568	483
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1881	1599
Grp Volume(v), veh/h	405	477
Grp Sat Flow(s),veh/h/ln	1881	1599
Q Serve(g_s), s	16.8	26.1
Cycle Q Clear(g_c), s	16.8	26.1
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	568	483
V/C Ratio(X)	0.71	0.99
Avail Cap(c_a), veh/h	568	483
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	27.3	30.5
Incr Delay (d2), s/veh	4.2	37.8
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	16.5
LnGrp Delay(d),s/veh	31.5	68.3
LnGrp LOS	C	E
Approach Vol, veh/h	1040	
Approach Delay, s/veh	52.4	
Approach LOS	D	
<b>Timer</b>		

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	0	1	0	0	53	3	420	14	37	540	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	80	80	80	93	93	93	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	0	1	0	0	66	3	452	15	42	614	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1197	1171	614	1164	1164	459	614	0	0	467	0	0
Stage 1	698	698	-	466	466	-	-	-	-	-	-	-
Stage 2	499	473	-	698	698	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	163	193	492	171	194	602	965	-	-	1094	-	-
Stage 1	431	442	-	577	562	-	-	-	-	-	-	-
Stage 2	554	558	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	140	185	492	165	186	602	965	-	-	1094	-	-
Mov Cap-2 Maneuver	140	185	-	165	186	-	-	-	-	-	-	-
Stage 1	430	425	-	575	560	-	-	-	-	-	-	-
Stage 2	491	556	-	413	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.2	11.7	0.1	0.5
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	965	-	-	145	602	1094	-	-
HCM Lane V/C Ratio	0.003	-	-	0.207	0.11	0.038	-	-
HCM Control Delay (s)	8.7	-	-	36.2	11.7	8.4	-	-
HCM Lane LOS	A	-	-	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.4	0.1	-	-

Intersection												
Intersection Delay, s/veh	53.8											
Intersection LOS	F											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	29	510	0	71	67	63	0	366	125	50
Peak Hour Factor	0.85	0.85	0.85	0.85	0.70	0.70	0.70	0.70	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	34	600	0	101	96	90	0	421	144	57
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	71.6	33.4	58.8
HCM LOS	F	D	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	35%	100%	0%
Vol Thru, %	0%	71%	5%	33%	0%	98%
Vol Right, %	0%	29%	94%	31%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	366	175	541	201	108	240
LT Vol	366	0	2	71	108	0
Through Vol	0	125	29	67	0	236
RT Vol	0	50	510	63	0	4
Lane Flow Rate	421	201	636	287	148	329
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.491	1	0.729	0.398	0.829
Departure Headway (Hd)	9.489	8.789	8.131	9.145	9.686	9.175
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	387	412	452	393	374	398
Service Time	7.191	6.491	6.133	7.234	7.386	6.875
HCM Lane V/C Ratio	1.088	0.488	1.407	0.73	0.396	0.827
HCM Control Delay	77.5	19.7	71.6	33.4	18.6	43.4
HCM Lane LOS	F	C	F	D	C	E
HCM 95th-tile Q	11.9	2.6	12.9	5.7	1.9	7.6

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	108	236	4
Peak Hour Factor	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	148	323	5
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	35.7
HCM LOS	E

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	608	2	0	1488	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	661	2	0	1617	0	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	661
Stage 1	-	-	661
Stage 2	-	-	809
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	923
Stage 1	-	-	475
Stage 2	-	-	398
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	923
Mov Cap-2 Maneuver	-	-	118
Stage 1	-	-	475
Stage 2	-	-	398

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	666	-	-	923	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**

Int Delay, s/veh 0.5












Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	19	11	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	12	4	2	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	16	0	35
Stage 1	-	-	14
Stage 2	-	-	21
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	1602	-	978
Stage 1	-	-	1009
Stage 2	-	-	1002
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1602	-	978
Mov Cap-2 Maneuver	-	-	978
Stage 1	-	-	1009
Stage 2	-	-	1002

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A























Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1602	-	-	-	978
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	200	268	284	71	934	122	365	221	158	405	477
v/c Ratio	1.22	0.26	0.42	0.81	0.85	0.21	0.78	0.21	0.73	0.78	0.88
Control Delay	180.8	23.3	5.1	98.3	36.5	5.6	49.5	23.2	58.5	40.1	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	180.8	23.3	5.1	98.3	36.5	5.6	49.5	23.2	58.5	40.1	40.0
Queue Length 50th (ft)	~76	59	0	41	257	0	105	47	88	206	184
Queue Length 95th (ft)	#125	80	36	#115	318	34	#152	70	#139	252	235
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	164	1139	717	88	1206	615	486	1158	230	594	600
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.24	0.40	0.81	0.77	0.20	0.75	0.19	0.69	0.68	0.80

**Intersection Summary**

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

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	445	807	319	69	75	503	93	322	260	24	113	202
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1881	1881		1900	1881	1863	1881	1881	1900	1881	1863
Adj Flow Rate, veh/h	468	849	336		85	572	106	350	283	26	131	235
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95		0.88	0.88	0.88	0.92	0.92	0.92	0.86	0.86
Percent Heavy Veh, %	0	1	1		0	1	2	1	1	1	1	2
Cap, veh/h	516	1290	577		110	982	435	448	806	74	165	385
Arrive On Green	0.15	0.36	0.36		0.06	0.27	0.27	0.13	0.24	0.24	0.09	0.21
Sat Flow, veh/h	3510	3574	1599		1810	3574	1583	3476	3313	302	1792	1863
Grp Volume(v), veh/h	468	849	336		85	572	106	350	152	157	131	235
Grp Sat Flow(s),veh/h/ln	1755	1787	1599		1810	1787	1583	1738	1787	1828	1792	1863
Q Serve(g_s), s	9.8	14.9	12.7		3.5	10.3	3.9	7.3	5.3	5.3	5.4	8.6
Cycle Q Clear(g_c), s	9.8	14.9	12.7		3.5	10.3	3.9	7.3	5.3	5.3	5.4	8.6
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.17	1.00	
Lane Grp Cap(c), veh/h	516	1290	577		110	982	435	448	435	445	165	385
V/C Ratio(X)	0.91	0.66	0.58		0.78	0.58	0.24	0.78	0.35	0.35	0.79	0.61
Avail Cap(c_a), veh/h	516	1518	679		121	1231	545	557	644	659	191	572
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	20.1	19.4		34.7	23.5	21.1	31.6	23.4	23.5	33.3	27.0
Incr Delay (d2), s/veh	19.8	0.8	0.9		24.5	0.6	0.3	5.7	0.5	0.5	17.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	7.5	5.7		2.5	5.2	1.7	3.9	2.6	2.7	3.5	4.5
LnGrp Delay(d),s/veh	51.3	20.9	20.3		59.2	24.0	21.4	37.3	23.9	23.9	51.1	28.5
LnGrp LOS	D	C	C		E	C	C	D	C	C	D	C
Approach Vol, veh/h		1653				763			659			602
Approach Delay, s/veh		29.4				27.6			31.0			34.3
Approach LOS		C				C			C			C
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	32.7	13.7	20.0	15.0	26.3	10.9	22.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	5.5	16.9	9.3	12.4	11.8	12.3	7.4	7.3				
Green Ext Time (p_c), s	0.0	8.8	0.4	3.1	0.0	8.2	0.0	4.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			30.1									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

Movement	SBR
Lane Configurations	7
Volume (veh/h)	203
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	236
Adj No. of Lanes	1
Peak Hour Factor	0.86
Percent Heavy Veh, %	2
Cap, veh/h	327
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	236
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	10.4
Cycle Q Clear(g_c), s	10.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	327
V/C Ratio(X)	0.72
Avail Cap(c_a), veh/h	486
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	27.7
Incr Delay (d2), s/veh	3.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.8
LnGrp Delay(d),s/veh	30.7
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	15	2	8	20	1	86	4	501	16	4	54	520	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	70	70	70	79	79	79	95	95	95	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	3	11	25	1	109	4	527	17	4	59	571	20

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1289	1252	571	1241	1243	540	571	0	0	653	544	0	0
Stage 1	690	699	-	544	544	-	-	-	-	-	-	-	-
Stage 2	599	553	-	697	699	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	141	172	520	152	174	542	1002	-	-	-	1025	-	-
Stage 1	435	442	-	523	519	-	-	-	-	-	-	-	-
Stage 2	488	514	-	431	442	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	112	171	520	146	173	542	1002	-	-	~ -15	~ -15	-	-
Mov Cap-2 Maneuver	112	171	-	146	173	-	-	-	-	-	-	-	-
Stage 1	433	442	-	521	517	-	-	-	-	-	-	-	-
Stage 2	387	512	-	419	442	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	35	21.3	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1002	-	-	155	355	+	-	-
HCM Lane V/C Ratio	0.004	-	-	0.23	0.382	-	-	-
HCM Control Delay (s)	8.6	-	-	35	21.3	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.7	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Intersection Delay, s/veh	48.8											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	48	498	0	27	37	35	0	481	257	37
Peak Hour Factor	0.90	0.90	0.90	0.90	0.70	0.70	0.70	0.70	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	53	553	0	39	53	50	0	512	273	39
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	63	14.7	52.2
HCM LOS	F	B	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	27%	100%	0%
Vol Thru, %	0%	87%	9%	37%	0%	98%
Vol Right, %	0%	13%	91%	35%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	481	294	548	99	27	157
LT Vol	481	0	2	27	27	0
Through Vol	0	257	48	37	0	154
RT Vol	0	37	498	35	0	3
Lane Flow Rate	512	313	609	141	30	174
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.637	1	0.314	0.074	0.403
Departure Headway (Hd)	7.915	7.328	6.325	7.983	8.836	8.323
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	461	491	572	451	406	433
Service Time	5.669	5.081	4.385	6.029	6.575	6.062
HCM Lane V/C Ratio	1.111	0.637	1.065	0.313	0.074	0.402
HCM Control Delay	70.6	22.1	63	14.7	12.3	16.6
HCM Lane LOS	F	C	F	B	B	C
HCM 95th-tile Q	13	4.4	14.5	1.3	0.2	1.9

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	154	3
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	30	171	3
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	16
HCM LOS	C

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1569	2	0	1028	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	1705	2	0	1117	0	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1705
Stage 1	-	-	1705
Stage 2	-	-	559
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	369
Stage 1	-	-	132
Stage 2	-	-	536
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	369
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	132
Stage 2	-	-	536

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	302	-	-	369	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s)	17	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**

Int Delay, s/veh 1.1












Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	19	19	4	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	21	4	7	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	25	0	44
Stage 1	-	-	23
Stage 2	-	-	21
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	1589	-	967
Stage 1	-	-	1000
Stage 2	-	-	1002
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1589	-	967
Mov Cap-2 Maneuver	-	-	967
Stage 1	-	-	1000
Stage 2	-	-	1002

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1589	-	-	-	967
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0






























											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	468	849	336	163	572	106	350	309	131	235	236
v/c Ratio	0.91	0.71	0.44	1.65	0.63	0.20	0.67	0.35	0.69	0.62	0.46
Control Delay	58.4	26.2	4.5	357.7	28.9	2.0	40.3	24.3	56.9	36.3	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	26.2	4.5	357.7	28.9	2.0	40.3	24.3	56.9	36.3	7.2
Queue Length 50th (ft)	117	184	0	~117	127	0	82	61	62	104	0
Queue Length 95th (ft)	#252	278	55	#261	192	9	#160	102	#162	176	48
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	517	1525	875	99	1237	655	558	1285	191	575	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.56	0.38	1.65	0.46	0.16	0.63	0.24	0.69	0.41	0.36

**Intersection Summary**

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





El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing plus Project  
AM Peak

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		 	 				 	 		 	 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%				0%			0%		
Storage Length (ft)		290		210		200		450	200		0	185
Storage Lanes		2		0		1		1	2		0	1
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00
Ped Bike Factor												
Frt				0.850				0.850		0.995		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3336	3374	1568	0	1805	3574	1583	3400	3522	0	1752
Flt Permitted		0.784				0.784			0.950			0.950
Satd. Flow (perm)	0	2753	3374	1568	0	1490	3574	1583	3400	3522	0	1752
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				284				122		4		
Link Speed (mph)			50				50			30		
Link Distance (ft)			437				631			452		
Travel Time (s)			6.0				8.6			10.3		

Intersection Summary




















Area Type: Other

		
Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1881	1599
Flt Permitted		
Satd. Flow (perm)	1881	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		139
Link Speed (mph)	30	
Link Distance (ft)	543	
Travel Time (s)	12.3	

Intersection Summary

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing plus Project  
 AM Peak

















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.865			0.995				0.850
Flt Protected		0.954					0.950			0.950		
Satd. Flow (prot)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Flt Permitted		0.954					0.950			0.950		
Satd. Flow (perm)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			2395			452	
Travel Time (s)		6.0			16.4			54.4			10.3	

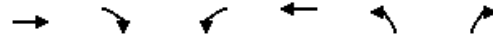
Intersection Summary

Area Type: Other

El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Existing plus Project  
 AM Peak

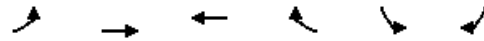
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.873			0.958			0.957			0.998	
Flt Protected					0.983		0.950			0.950		
Satd. Flow (prot)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Flt Permitted					0.983		0.950			0.950		
Satd. Flow (perm)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		2395			982			1162			698	
Travel Time (s)		54.4			22.3			17.6			10.6	
<b>Intersection Summary</b>												
Area Type:	Other											



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		100	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	50			50	30	
Link Distance (ft)	1235			437	300	
Travel Time (s)	16.8			6.0	6.8	

**Intersection Summary**

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.966			
Flt Protected					0.950	
Satd. Flow (prot)	0	1863	1799	0	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1799	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		228	265		183	
Travel Time (s)		5.2	6.0		4.2	

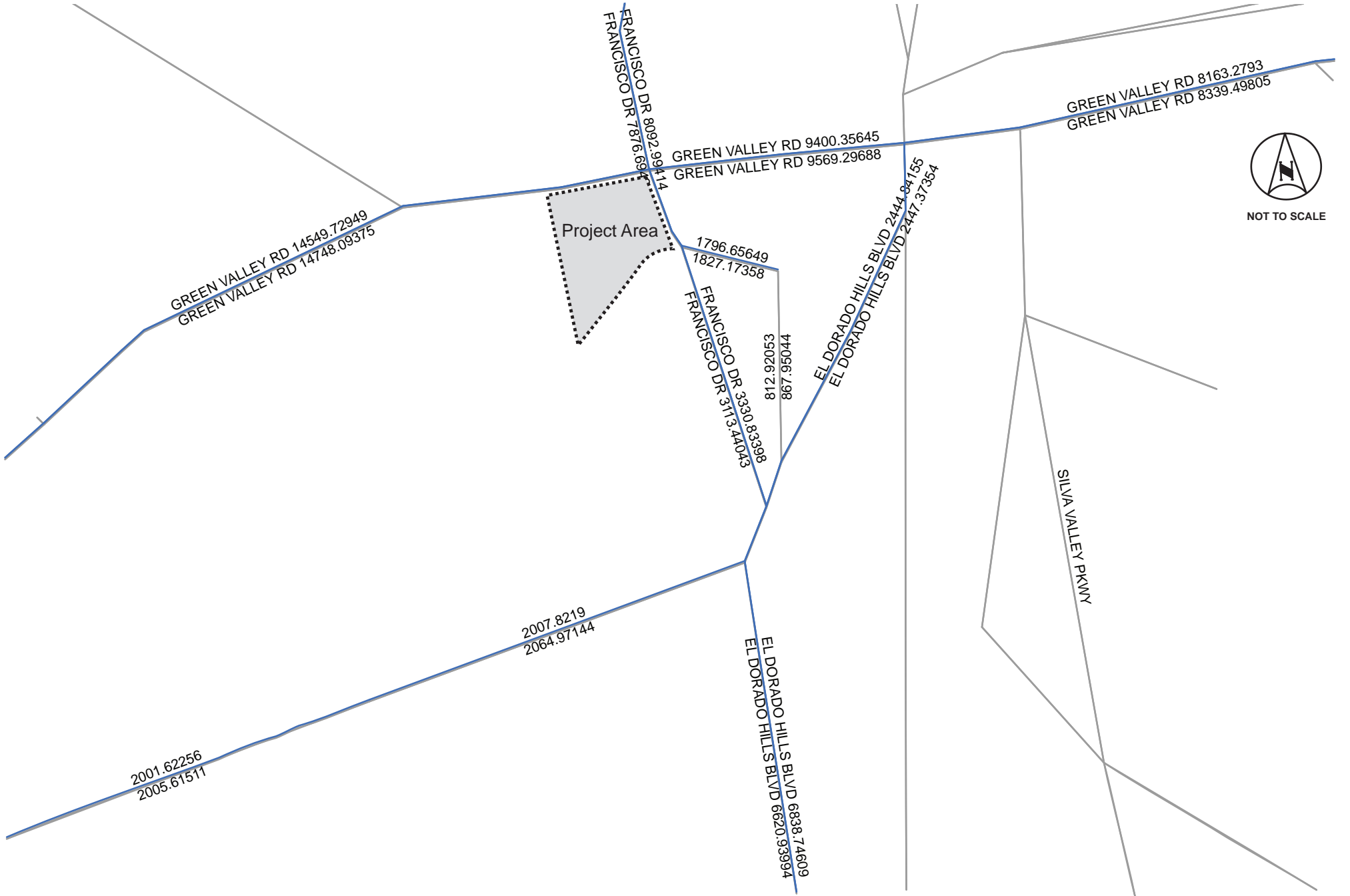
**Intersection Summary**

Area Type: Other

**Appendix D:**

*Near-Term (2025) Traffic Volumes*

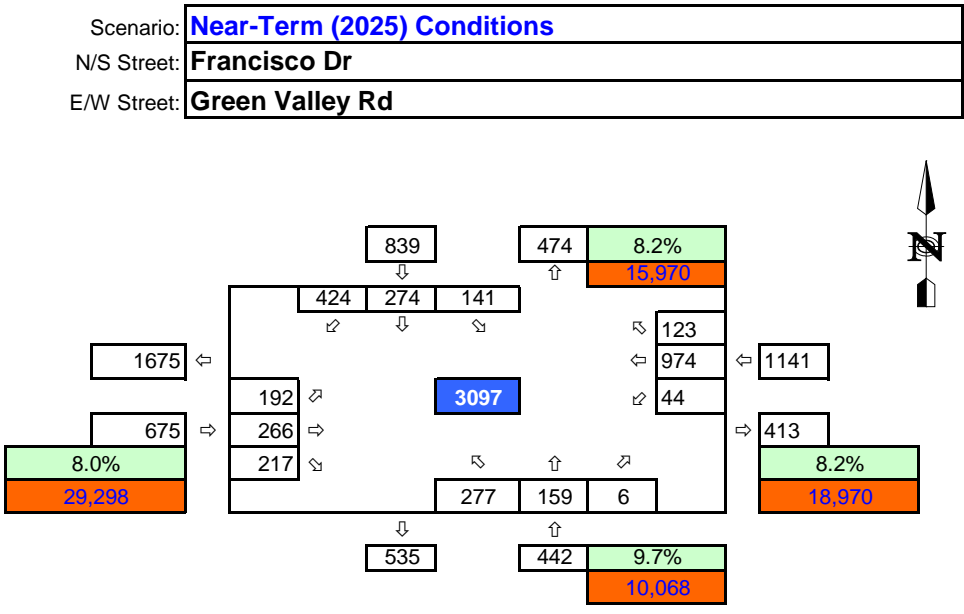
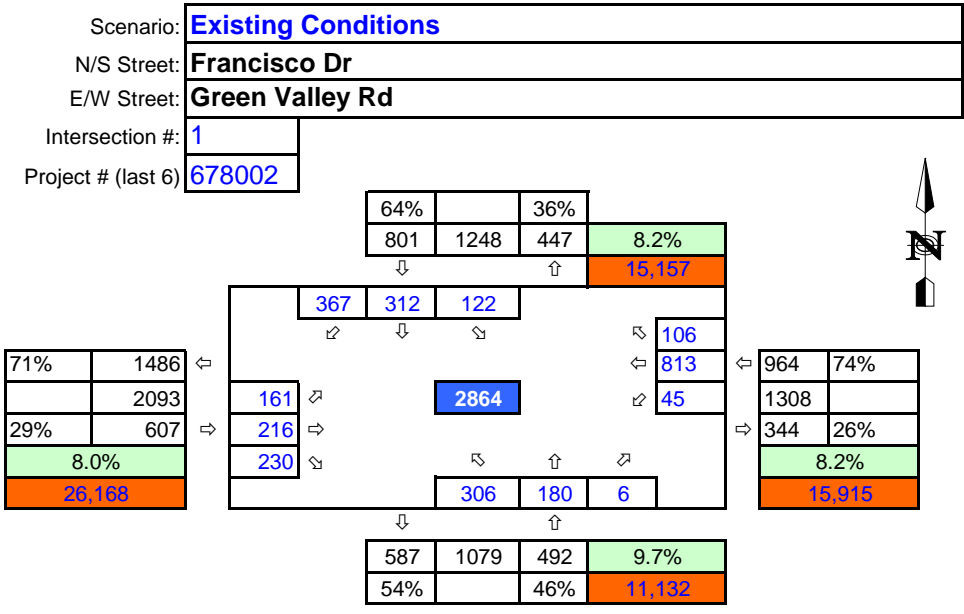
# El Dorado Hills Memory Care Center: Traffic Impact Analysis



NOT TO SCALE



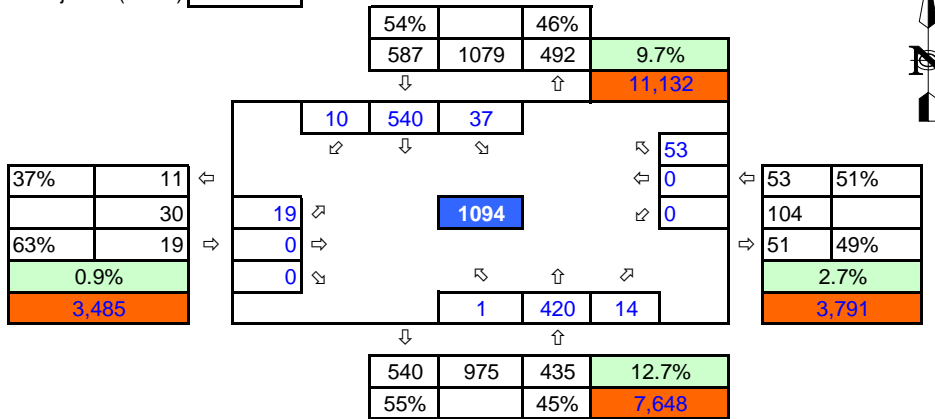
# Int 1 AM Peak Volumes



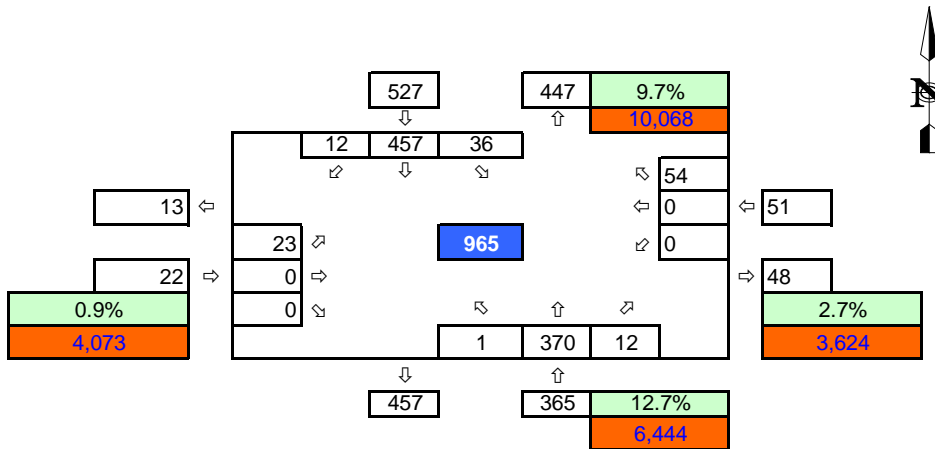
LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

# Int 2 AM Peak Volumes

Scenario:	<b>Existing Conditions</b>
N/S Street:	<b>Francisco Dr</b>
E/W Street:	<b>Embarcadero Dr / Cambria Way</b>
Intersection #:	<b>2</b>
Project # (last 6)	<b>678002</b>



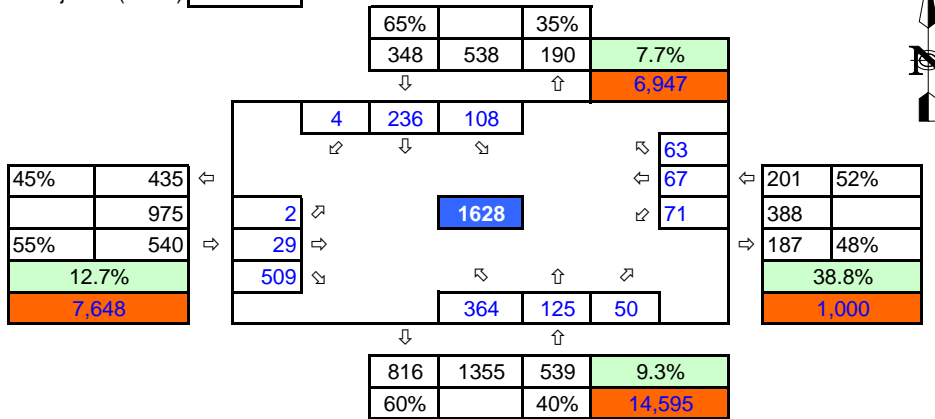
Scenario:	<b>Near-Term (2025) Conditions</b>
N/S Street:	<b>Francisco Dr</b>
E/W Street:	<b>Embarcadero Dr / Cambria Way</b>



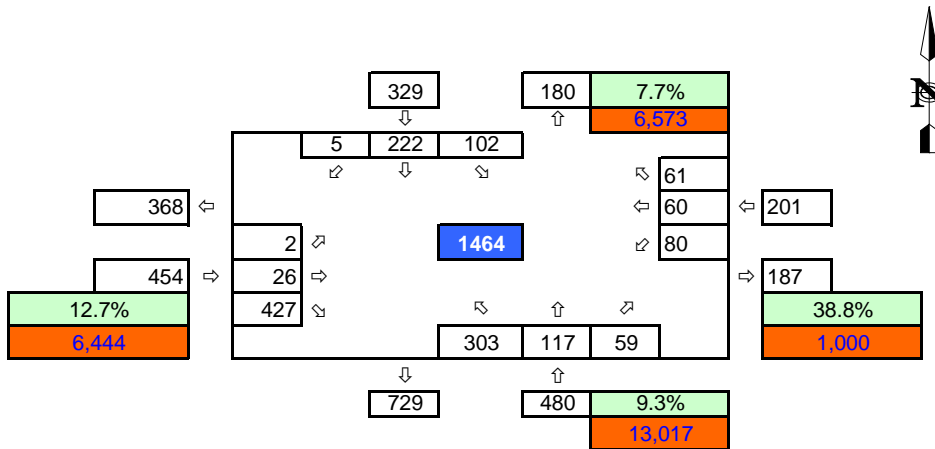
LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

# Int 3 AM Peak Volumes

Scenario:	<b>Existing Conditions</b>
N/S Street:	<b>El Dorado Hills Blvd</b>
E/W Street:	<b>Francisco Dr</b>
Intersection #:	<b>3</b>
Project # (last 6)	<b>678002</b>



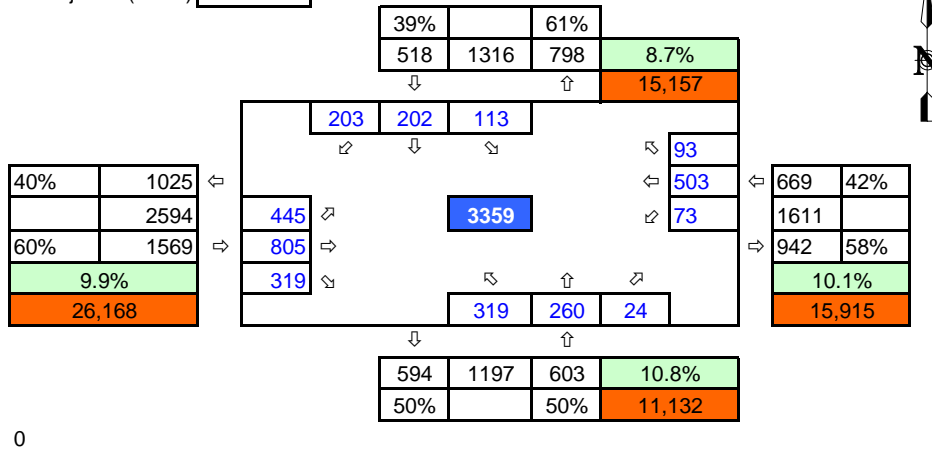
Scenario:	<b>Near-Term (2025) Conditions</b>
N/S Street:	<b>El Dorado Hills Blvd</b>
E/W Street:	<b>Francisco Dr</b>



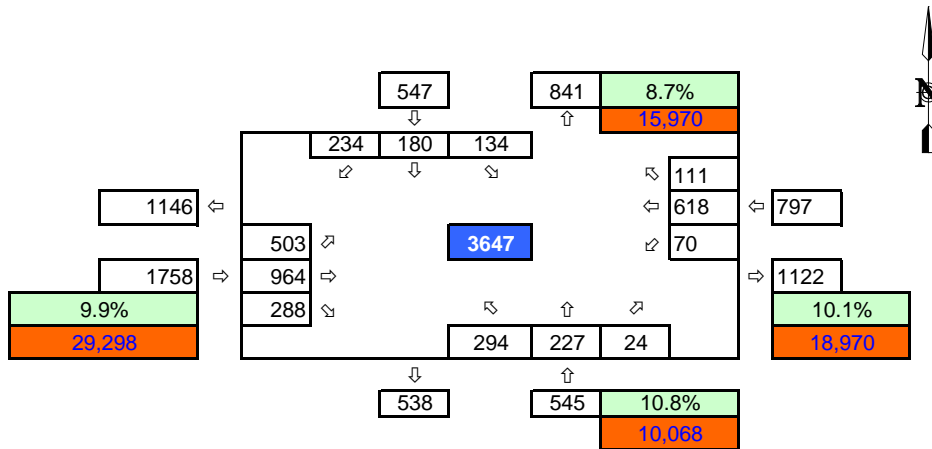
LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

# Int 1 PM Peak Volumes

Scenario:	<b>Existing Conditions</b>
N/S Street:	<b>Francisco Dr</b>
E/W Street:	<b>Green Valley Rd</b>
Intersection #:	<b>1</b>
Project # (last 6)	<b>678002</b>

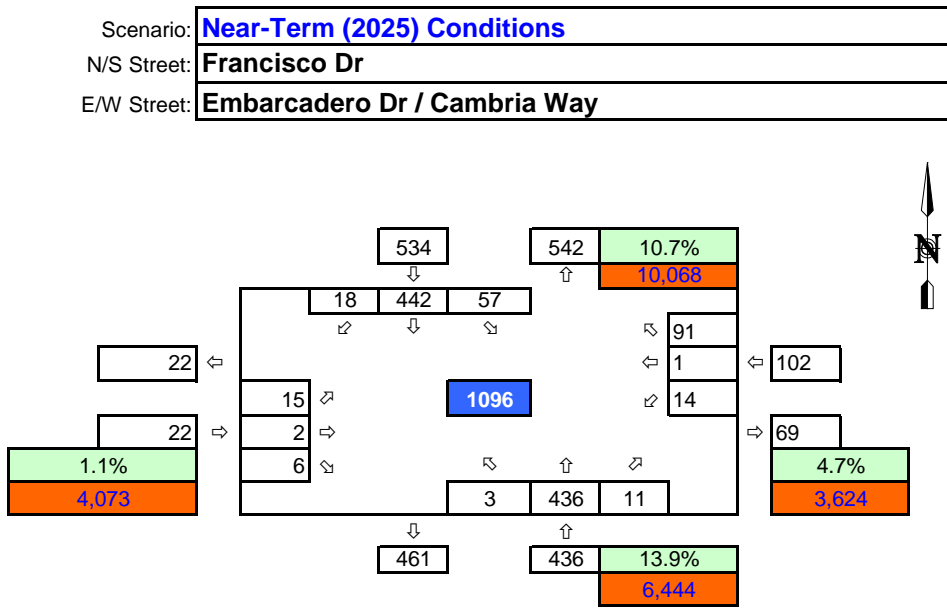
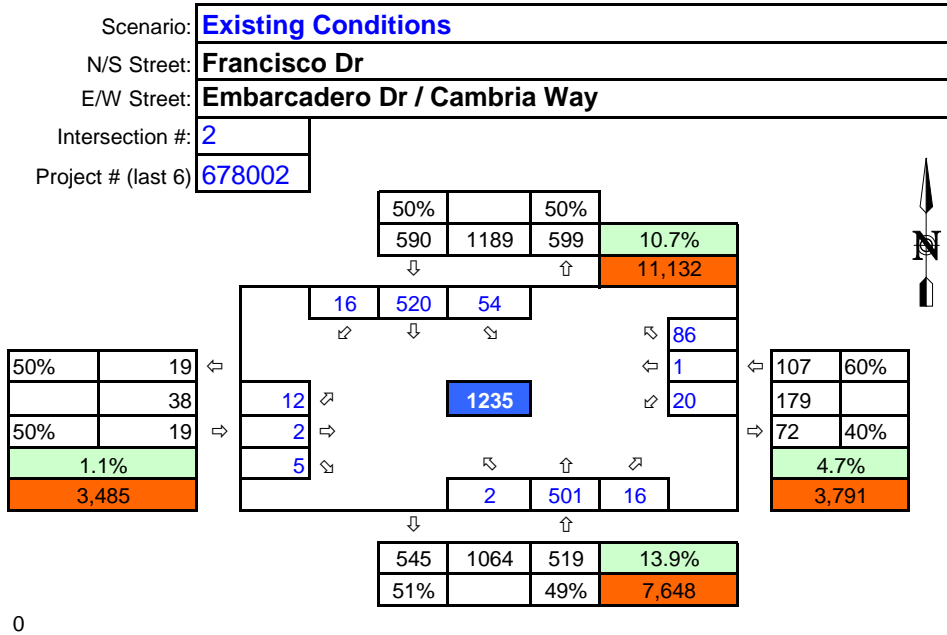


Scenario:	<b>Near-Term (2025) Conditions</b>
N/S Street:	<b>Francisco Dr</b>
E/W Street:	<b>Green Valley Rd</b>



LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

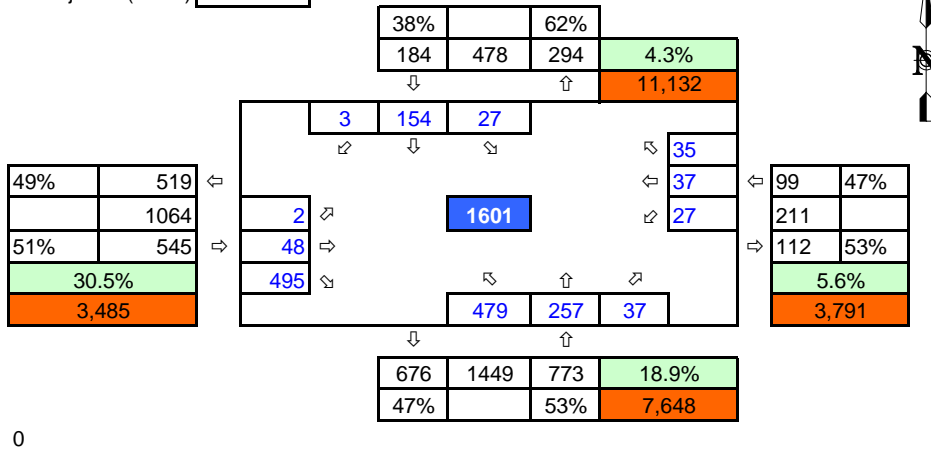
# Int 2 PM Peak Volumes



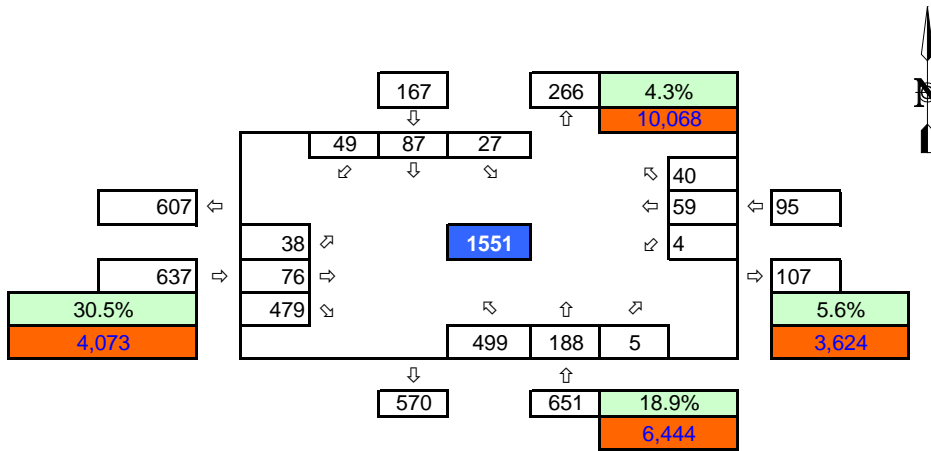
LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

# Int 3 PM Peak Volumes

Scenario: **Existing Conditions**  
 N/S Street: **El Dorado Hills Blvd**  
 E/W Street: **Francisco Dr**  
 Intersection #: **3**  
 Project # (last 6): **678002**



Scenario: **Near-Term (2025) Conditions**  
 N/S Street: **El Dorado Hills Blvd**  
 E/W Street: **Francisco Dr**



LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

**Appendix E:**

*Analysis Worksheets for  
Near-Term (2025) Conditions*

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	192	266	217	15	44	974	123	280	161	6	141
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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	1863		1872	1863	1863	1863	1863	1900	1863
Adj Flow Rate, veh/h		209	289	236		48	1059	134	304	175	7	153
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		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
Cap, veh/h		197	1212	542		61	1130	506	385	1075	43	187
Arrive On Green		0.06	0.34	0.34		0.03	0.32	0.32	0.11	0.31	0.31	0.11
Sat Flow, veh/h		3442	3539	1583		1783	3539	1583	3442	3470	138	1774
Grp Volume(v), veh/h		209	289	236		48	1059	134	304	89	93	153
Grp Sat Flow(s),veh/h/ln		1721	1770	1583		1783	1770	1583	1721	1770	1838	1774
Q Serve(g_s), s		5.0	5.1	10.1		2.3	25.4	5.5	7.5	3.2	3.2	7.4
Cycle Q Clear(g_c), s		5.0	5.1	10.1		2.3	25.4	5.5	7.5	3.2	3.2	7.4
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.08	1.00
Lane Grp Cap(c), veh/h		197	1212	542		61	1130	506	385	548	570	187
V/C Ratio(X)		1.06	0.24	0.44		0.79	0.94	0.26	0.79	0.16	0.16	0.82
Avail Cap(c_a), veh/h		197	1212	542		102	1146	513	473	557	578	223
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.2	20.6	22.2		41.9	28.9	22.1	37.8	21.9	21.9	38.3
Incr Delay (d2), s/veh		81.3	0.1	0.6		19.7	14.0	0.3	7.2	0.1	0.1	18.0
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
%ile BackOfQ(50%),veh/ln		4.6	2.5	4.4		1.5	14.5	2.4	4.0	1.6	1.7	4.5
LnGrp Delay(d),s/veh		122.5	20.7	22.8		61.6	42.8	22.4	45.0	22.1	22.1	56.3
LnGrp LOS		F	C	C		E	D	C	D	C	C	E
Approach Vol, veh/h			734				1241			486		
Approach Delay, s/veh			50.3				41.4			36.4		
Approach LOS			D				D			D		
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	35.6	13.8	31.0	9.0	33.6	13.2	31.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.3	12.1	9.5	27.0	7.0	27.4	9.4	5.2				
Green Ext Time (p_c), s	0.0	8.8	0.3	0.0	0.0	0.5	0.1	4.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			44.6									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved ignoring U-Turning movement.												



	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↗
Volume (veh/h)	274	424
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	298	461
Adj No. of Lanes	1	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	565	480
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1863	1583
Grp Volume(v), veh/h	298	461
Grp Sat Flow(s),veh/h/ln	1863	1583
Q Serve(g_s), s	11.6	25.0
Cycle Q Clear(g_c), s	11.6	25.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	565	480
V/C Ratio(X)	0.53	0.96
Avail Cap(c_a), veh/h	565	480
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	25.3	29.9
Incr Delay (d2), s/veh	0.9	31.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	15.0
LnGrp Delay(d),s/veh	26.2	61.0
LnGrp LOS	C	E
Approach Vol, veh/h	912	
Approach Delay, s/veh	48.8	
Approach LOS	D	
Timer		

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	0	0	0	0	54	1	370	12	38	484	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	0	0	0	0	59	1	402	13	41	526	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1049	1026	526	1020	1020	409	526	0	0	415	0	0
Stage 1	609	609	-	411	411	-	-	-	-	-	-	-
Stage 2	440	417	-	609	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	205	235	552	215	237	642	1041	-	-	1144	-	-
Stage 1	482	485	-	618	595	-	-	-	-	-	-	-
Stage 2	596	591	-	482	485	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	181	226	552	209	228	642	1041	-	-	1144	-	-
Mov Cap-2 Maneuver	181	226	-	209	228	-	-	-	-	-	-	-
Stage 1	482	468	-	617	594	-	-	-	-	-	-	-
Stage 2	541	590	-	465	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.1	11.2	0	0.6
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1041	-	-	181	642	1144	-	-
HCM Lane V/C Ratio	0.001	-	-	0.138	0.091	0.036	-	-
HCM Control Delay (s)	8.5	-	-	28.1	11.2	8.3	-	-
HCM Lane LOS	A	-	-	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-	-

Intersection												
Intersection Delay, s/veh	39.8											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	28	454	0	80	60	61	0	317	117	62
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	2	30	493	0	87	65	66	0	345	127	67
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	65.6	22.8	34
HCM LOS	F	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	0%	40%	100%	0%
Vol Thru, %	0%	65%	93%	0%	30%	0%	97%
Vol Right, %	0%	35%	0%	100%	30%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	179	30	454	201	102	228
LT Vol	317	0	2	0	80	102	0
Through Vol	0	117	28	0	60	0	222
RT Vol	0	62	0	454	61	0	6
Lane Flow Rate	345	195	33	493	218	111	248
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.841	0.435	0.076	1	0.552	0.282	0.594
Departure Headway (Hd)	8.789	8.047	8.391	7.633	9.102	9.153	8.635
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	413	448	427	474	398	394	419
Service Time	6.527	5.785	6.147	5.389	7.144	6.895	6.376
HCM Lane V/C Ratio	0.835	0.435	0.077	1.04	0.548	0.282	0.592
HCM Control Delay	43.7	16.9	11.8	69.2	22.8	15.5	23.3
HCM Lane LOS	E	C	B	F	C	C	C
HCM 95th-tile Q	8	2.2	0.2	13.3	3.2	1.1	3.7

**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	102	222	6
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	111	241	7
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach NB

Opposing Lanes 2

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 2

HCM Control Delay 20.9

HCM LOS C

**Lane**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	289	236	64	1059	134	304	182	153	298	461
v/c Ratio	1.24	0.23	0.33	0.58	0.92	0.22	0.67	0.19	0.71	0.60	0.88
Control Delay	184.8	22.1	4.7	63.4	42.4	5.3	44.3	23.1	56.6	32.7	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.8	22.1	4.7	63.4	42.4	5.3	44.3	23.1	56.6	32.7	40.6
Queue Length 50th (ft)	-80	64	0	36	307	0	86	38	85	142	175
Queue Length 95th (ft)	#151	96	50	#96	#441	39	128	64	#174	223	#341
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	170	1243	709	110	1184	618	487	1147	230	583	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.23	0.33	0.58	0.89	0.22	0.62	0.16	0.67	0.51	0.78

**Intersection Summary**

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

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	503	964	347	65	85	618	111	378	292	31	134	217
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1863		1879	1863	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	547	1048	377		92	672	121	411	317	34	146	236
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	460	1295	579		109	1037	464	487	824	88	172	392
Arrive On Green	0.13	0.37	0.37		0.06	0.29	0.29	0.14	0.26	0.26	0.10	0.21
Sat Flow, veh/h	3442	3539	1583		1789	3539	1583	3442	3228	344	1774	1863
Grp Volume(v), veh/h	547	1048	377		92	672	121	411	173	178	146	236
Grp Sat Flow(s),veh/h/ln	1721	1770	1583		1789	1770	1583	1721	1770	1802	1774	1863
Q Serve(g_s), s	11.0	22.0	16.3		4.2	13.6	4.8	9.6	6.6	6.7	6.7	9.4
Cycle Q Clear(g_c), s	11.0	22.0	16.3		4.2	13.6	4.8	9.6	6.6	6.7	6.7	9.4
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	460	1295	579		109	1037	464	487	452	460	172	392
V/C Ratio(X)	1.19	0.81	0.65		0.85	0.65	0.26	0.84	0.38	0.39	0.85	0.60
Avail Cap(c_a), veh/h	460	1367	611		109	1109	496	502	580	591	172	520
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	23.5	21.7		38.3	25.4	22.3	34.5	25.3	25.3	36.6	29.4
Incr Delay (d2), s/veh	105.3	3.6	2.3		42.9	1.2	0.3	12.2	0.5	0.5	30.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	11.3	7.5		3.4	6.8	2.1	5.4	3.3	3.4	4.7	5.0
LnGrp Delay(d),s/veh	141.0	27.1	24.0		81.2	26.6	22.6	46.6	25.8	25.9	67.1	30.9
LnGrp LOS	F	C	C		F	C	C	D	C	C	E	C
Approach Vol, veh/h		1972				885			762			636
Approach Delay, s/veh		58.1				31.7			37.1			41.2
Approach LOS		E				C			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	35.8	15.7	21.9	15.0	29.8	12.0	25.5				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	6.2	24.0	11.6	14.4	13.0	15.6	8.7	8.7				
Green Ext Time (p_c), s	0.0	6.2	0.1	2.9	0.0	7.7	0.0	4.2				

Intersection Summary

HCM 2010 Ctrl Delay	46.3
HCM 2010 LOS	D

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	7
Volume (veh/h)	234
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	254
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	334
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	254
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	12.4
Cycle Q Clear(g_c), s	12.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	334
V/C Ratio(X)	0.76
Avail Cap(c_a), veh/h	442
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	30.6
Incr Delay (d2), s/veh	5.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	5.9
LnGrp Delay(d),s/veh	36.0
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

**Intersection**

Int Delay, s/veh 2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	15	2	8	18	1	91	4	588	15	7	57	567	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	2	2	2
Mvmt Flow	16	2	9	20	1	99	4	639	16	8	62	616	20

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1446	1419	616	1402	1411	655	616	0	0	754	655	0	0
Stage 1	740	755	-	656	656	-	-	-	-	-	-	-	-
Stage 2	706	664	-	746	755	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	137	491	117	138	466	964	-	-	-	932	-	-
Stage 1	409	417	-	454	462	-	-	-	-	-	-	-	-
Stage 2	427	458	-	405	417	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	85	136	491	113	137	466	964	-	-	-9	-9	-	-
Mov Cap-2 Maneuver	85	136	-	113	137	-	-	-	-	-	-	-	-
Stage 1	407	417	-	452	460	-	-	-	-	-	-	-	-
Stage 2	334	456	-	396	417	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	43.6	24.3	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	964	-	-	120	304	+	-	-
HCM Lane V/C Ratio	0.005	-	-	0.226	0.393	-	-	-
HCM Control Delay (s)	8.8	-	-	43.6	24.3	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.8	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection												
Intersection Delay, s/veh	46.1											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	38	76	479	0	4	59	40	0	499	188	5
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	41	83	521	0	4	64	43	0	542	204	5
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	49.5	14.2	55.4
HCM LOS	E	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	0%	4%	100%	0%
Vol Thru, %	0%	97%	67%	0%	57%	0%	64%
Vol Right, %	0%	3%	0%	100%	39%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	499	193	114	479	103	27	136
LT Vol	499	0	38	0	4	27	0
Through Vol	0	188	76	0	59	0	87
RT Vol	0	5	0	479	40	0	49
Lane Flow Rate	542	210	124	521	112	29	148
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1	0.431	0.261	0.973	0.257	0.071	0.329
Departure Headway (Hd)	7.923	7.391	7.591	6.726	8.257	8.767	8.012
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	485	473	541	434	408	448
Service Time	5.699	5.167	5.337	4.473	6.326	6.538	5.783
HCM Lane V/C Ratio	1.189	0.433	0.262	0.963	0.258	0.071	0.33
HCM Control Delay	70.7	15.7	13	58.2	14.2	12.2	14.7
HCM Lane LOS	F	C	B	F	B	B	B
HCM 95th-tile Q	13	2.1	1	13.1	1	0.2	1.4

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	87	49
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	29	95	53
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.3
HCM LOS	B

**Lane**
























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	547	1048	377	163	672	121	411	351	146	236	254
v/c Ratio	1.16	0.81	0.46	1.77	0.66	0.21	0.80	0.40	0.82	0.64	0.52
Control Delay	127.8	30.0	4.4	418.8	29.3	2.7	48.6	26.0	74.8	38.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.8	30.0	4.4	418.8	29.3	2.7	48.6	26.0	74.8	38.7	10.4
Queue Length 50th (ft)	~182	248	0	~131	156	0	109	77	77	115	15
Queue Length 95th (ft)	#308	367	57	#269	237	20	#204	115	#199	187	76
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	472	1407	856	92	1142	622	515	1185	177	536	612
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.74	0.44	1.77	0.59	0.19	0.80	0.30	0.82	0.44	0.42

**Intersection Summary**

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

El Dorado Hills Memory Care Center  
 1: Francisco Dr. & Green Valley Rd.

Near-Term (2025)  
 PM Peak




















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	290		210	200		450	200		0	185		0
Storage Lanes	2		0	1		1	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850					0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1863	3433	3493	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	1770	3539	1863	3433	3493	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289						12			228
Link Speed (mph)		50			50			30			30	
Link Distance (ft)		437			631			452			543	
Travel Time (s)		6.0			8.6			10.3			12.3	

Intersection Summary

Area Type: Other

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Near-Term (2025)  
 PM Peak




















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.962			0.884			0.996				0.850
Flt Protected		0.969			0.994		0.950			0.950		
Satd. Flow (prot)	0	1736	0	0	1637	0	1770	1855	0	1770	1863	1583
Flt Permitted		0.969			0.994		0.950			0.950		
Satd. Flow (perm)	0	1736	0	0	1637	0	1770	1855	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			452			452	
Travel Time (s)		6.0			16.4			10.3			10.3	

Intersection Summary

Area Type: Other

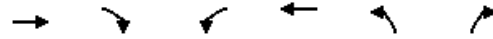
El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Near-Term (2025)  
 PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.947			0.996			0.945	
Flt Protected		0.984			0.998		0.950			0.950		
Satd. Flow (prot)	0	1833	1583	0	1760	0	1770	1855	0	1770	1760	0
Flt Permitted		0.984			0.998		0.950			0.950		
Satd. Flow (perm)	0	1833	1583	0	1760	0	1770	1855	0	1770	1760	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1943			982			1162			698	
Travel Time (s)		44.2			22.3			17.6			10.6	

Intersection Summary

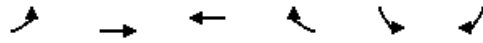
Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		100	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	3539	1863	0	3539	0	1863
Flt Permitted						
Satd. Flow (perm)	3539	1863	0	3539	0	1863
Link Speed (mph)	50			50	30	
Link Distance (ft)	1235			437	300	
Travel Time (s)	16.8			6.0	6.8	

Intersection Summary

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	1863	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		228	265		183	
Travel Time (s)		5.2	6.0		4.2	























Intersection Summary

Area Type: Other



**Appendix F:**

*Analysis Worksheets for  
Near-Term (2025) plus Proposed Project Conditions*

												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	192	267	217	15	46	974	123	281	161	6	141
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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	1863		1872	1863	1863	1863	1863	1900	1863
Adj Flow Rate, veh/h		209	290	236		50	1059	134	305	175	7	153
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		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
Cap, veh/h		197	1206	540		64	1130	506	386	1075	43	187
Arrive On Green		0.06	0.34	0.34		0.04	0.32	0.32	0.11	0.31	0.31	0.11
Sat Flow, veh/h		3442	3539	1583		1783	3539	1583	3442	3470	138	1774
Grp Volume(v), veh/h		209	290	236		50	1059	134	305	89	93	153
Grp Sat Flow(s),veh/h/ln		1721	1770	1583		1783	1770	1583	1721	1770	1838	1774
Q Serve(g_s), s		5.0	5.1	10.1		2.4	25.4	5.5	7.5	3.2	3.2	7.4
Cycle Q Clear(g_c), s		5.0	5.1	10.1		2.4	25.4	5.5	7.5	3.2	3.2	7.4
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.08	1.00
Lane Grp Cap(c), veh/h		197	1206	540		64	1130	506	386	549	570	187
V/C Ratio(X)		1.06	0.24	0.44		0.79	0.94	0.27	0.79	0.16	0.16	0.82
Avail Cap(c_a), veh/h		197	1206	540		102	1146	512	472	557	578	223
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.2	20.7	22.3		41.8	28.9	22.1	37.8	21.9	21.9	38.3
Incr Delay (d2), s/veh		81.4	0.1	0.6		18.8	14.0	0.3	7.2	0.1	0.1	18.0
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
%ile BackOfQ(50%),veh/ln		4.6	2.5	4.5		1.5	14.6	2.4	4.0	1.6	1.7	4.5
LnGrp Delay(d),s/veh		122.6	20.8	22.9		60.6	42.9	22.4	45.0	22.1	22.1	56.3
LnGrp LOS		F	C	C		E	D	C	D	C	C	E
Approach Vol, veh/h			735				1243			487		
Approach Delay, s/veh			50.4				41.4			36.4		
Approach LOS			D				D			D		
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	35.5	13.8	31.0	9.0	33.6	13.2	31.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.4	12.1	9.5	27.0	7.0	27.4	9.4	5.2				
Green Ext Time (p_c), s	0.0	8.8	0.3	0.0	0.0	0.5	0.1	4.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			44.7									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↑
Volume (veh/h)	274	424
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	298	461
Adj No. of Lanes	1	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	565	480
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1863	1583
Grp Volume(v), veh/h	298	461
Grp Sat Flow(s),veh/h/ln	1863	1583
Q Serve(g_s), s	11.6	25.0
Cycle Q Clear(g_c), s	11.6	25.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	565	480
V/C Ratio(X)	0.53	0.96
Avail Cap(c_a), veh/h	565	480
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	25.3	30.0
Incr Delay (d2), s/veh	0.9	31.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	15.0
LnGrp Delay(d),s/veh	26.2	61.1
LnGrp LOS	C	E
Approach Vol, veh/h	912	
Approach Delay, s/veh	48.9	
Approach LOS	D	
Timer		

**Intersection**

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	0	1	0	0	54	3	370	12	38	484	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	0	1	0	0	59	3	402	13	41	526	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1054	1031	526	1024	1024	409	526	0	0	415	0	0
Stage 1	609	609	-	415	415	-	-	-	-	-	-	-
Stage 2	445	422	-	609	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	204	233	552	214	235	642	1041	-	-	1144	-	-
Stage 1	482	485	-	615	592	-	-	-	-	-	-	-
Stage 2	592	588	-	482	485	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	180	224	552	207	226	642	1041	-	-	1144	-	-
Mov Cap-2 Maneuver	180	224	-	207	226	-	-	-	-	-	-	-
Stage 1	481	468	-	613	590	-	-	-	-	-	-	-
Stage 2	536	586	-	464	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.8	11.2	0.1	0.6
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1041	-	-	185	642	1144	-	-
HCM Lane V/C Ratio	0.003	-	-	0.147	0.091	0.036	-	-
HCM Control Delay (s)	8.5	-	-	27.8	11.2	8.3	-	-
HCM Lane LOS	A	-	-	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-	-

Intersection												
Intersection Delay, s/veh	40											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	28	455	0	80	60	61	0	319	117	62
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	2	30	495	0	87	65	66	0	347	127	67
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	65.7	22.9	34.6
HCM LOS	F	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	0%	40%	100%	0%
Vol Thru, %	0%	65%	93%	0%	30%	0%	97%
Vol Right, %	0%	35%	0%	100%	30%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	319	179	30	455	201	102	228
LT Vol	319	0	2	0	80	102	0
Through Vol	0	117	28	0	60	0	222
RT Vol	0	62	0	455	61	0	6
Lane Flow Rate	347	195	33	495	218	111	248
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.847	0.435	0.076	1	0.553	0.282	0.595
Departure Headway (Hd)	8.793	8.051	8.402	7.644	9.114	9.161	8.643
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	413	448	426	475	398	392	419
Service Time	6.53	5.788	6.157	5.399	7.154	6.903	6.384
HCM Lane V/C Ratio	0.84	0.435	0.077	1.042	0.548	0.283	0.592
HCM Control Delay	44.6	16.9	11.9	69.3	22.9	15.5	23.4
HCM Lane LOS	E	C	B	F	C	C	C
HCM 95th-tile Q	8.1	2.2	0.2	13.2	3.2	1.1	3.7

**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	102	222	6
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	111	241	7
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach NB

Opposing Lanes 2

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 2

HCM Control Delay 21

HCM LOS C

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	677	2	0	1681	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	736	2	0	1827	0	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	736
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	865
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	865
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	629	-	-	865	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	23	14	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	15	4	2	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	20	0	42
Stage 1	-	-	17
Stage 2	-	-	25
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	1596	-	969
Stage 1	-	-	1006
Stage 2	-	-	998
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1596	-	969
Mov Cap-2 Maneuver	-	-	969
Stage 1	-	-	1006
Stage 2	-	-	998

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1596	-	-	-	969
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	290	236	66	1059	134	305	182	153	298	461
v/c Ratio	1.24	0.23	0.33	0.60	0.92	0.22	0.68	0.19	0.71	0.60	0.88
Control Delay	184.8	22.2	4.7	64.9	42.4	5.3	44.4	23.1	56.6	32.7	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.8	22.2	4.7	64.9	42.4	5.3	44.4	23.1	56.6	32.7	40.6
Queue Length 50th (ft)	~80	64	0	38	307	0	86	38	85	142	175
Queue Length 95th (ft)	#151	97	50	#100	#441	39	129	64	#174	223	#341
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	170	1243	709	110	1184	618	487	1147	230	583	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.23	0.33	0.60	0.89	0.22	0.63	0.16	0.67	0.51	0.78

**Intersection Summary**

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

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	503	966	347	65	87	618	111	381	292	31	134	217
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1863		1878	1863	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	547	1050	377		95	672	121	414	317	34	146	236
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	459	1295	579		108	1037	464	490	826	88	172	392
Arrive On Green	0.13	0.37	0.37		0.06	0.29	0.29	0.14	0.26	0.26	0.10	0.21
Sat Flow, veh/h	3442	3539	1583		1789	3539	1583	3442	3228	344	1774	1863
Grp Volume(v), veh/h	547	1050	377		95	672	121	414	173	178	146	236
Grp Sat Flow(s),veh/h/ln	1721	1770	1583		1789	1770	1583	1721	1770	1802	1774	1863
Q Serve(g_s), s	11.0	22.1	16.3		4.3	13.7	4.8	9.7	6.6	6.7	6.7	9.4
Cycle Q Clear(g_c), s	11.0	22.1	16.3		4.3	13.7	4.8	9.7	6.6	6.7	6.7	9.4
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	459	1295	579		108	1037	464	490	453	461	172	392
V/C Ratio(X)	1.19	0.81	0.65		0.88	0.65	0.26	0.85	0.38	0.39	0.85	0.60
Avail Cap(c_a), veh/h	459	1365	611		108	1107	495	501	579	590	172	519
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	23.6	21.8		38.4	25.4	22.3	34.5	25.3	25.3	36.6	29.4
Incr Delay (d2), s/veh	106.0	3.7	2.3		49.8	1.2	0.3	12.4	0.5	0.5	30.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	11.4	7.5		3.6	6.8	2.1	5.4	3.3	3.4	4.8	5.0
LnGrp Delay(d),s/veh	141.8	27.2	24.1		88.3	26.7	22.6	46.9	25.8	25.9	67.4	30.9
LnGrp LOS	F	C	C		F	C	C	D	C	C	E	C
Approach Vol, veh/h		1974				888			765			636
Approach Delay, s/veh		58.4				32.7			37.3			41.4
Approach LOS		E				C			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	35.9	15.7	21.9	15.0	29.9	12.0	25.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	6.3	24.1	11.7	14.4	13.0	15.7	8.7	8.7				
Green Ext Time (p_c), s	0.0	6.1	0.1	2.9	0.0	7.7	0.0	4.2				

**Intersection Summary**

HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

**Notes**

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	7
Volume (veh/h)	234
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	254
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	333
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	254
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	12.4
Cycle Q Clear(g_c), s	12.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	333
V/C Ratio(X)	0.76
Avail Cap(c_a), veh/h	442
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	30.6
Incr Delay (d2), s/veh	5.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	5.9
LnGrp Delay(d),s/veh	36.1
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

**Intersection**

Int Delay, s/veh 2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	18	2	11	18	1	91	6	588	15	7	57	567	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	2	2	2
Mvmt Flow	20	2	12	20	1	99	7	639	16	8	62	616	22

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1450	1423	616	1407	1415	655	616	0	0	754	655	0	0
Stage 1	740	755	-	660	660	-	-	-	-	-	-	-	-
Stage 2	710	668	-	747	755	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	136	491	117	137	466	964	-	-	-	932	-	-
Stage 1	409	417	-	452	460	-	-	-	-	-	-	-	-
Stage 2	424	456	-	405	417	-	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-	-
Mov Cap-1 Maneuver	85	135	491	112	136	466	964	-	-	-9	-9	-	-
Mov Cap-2 Maneuver	85	135	-	112	136	-	-	-	-	-	-	-	-
Stage 1	406	417	-	449	457	-	-	-	-	-	-	-	-
Stage 2	331	453	-	393	417	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	44.1	24.4	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	964	-	-	125	303	+	-	-
HCM Lane V/C Ratio	0.007	-	-	0.27	0.395	-	-	-
HCM Control Delay (s)	8.8	-	-	44.1	24.4	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	1	1.8	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Intersection Delay, s/veh	46.6											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	38	76	482	0	4	59	40	0	501	188	5
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	41	83	524	0	4	64	43	0	545	204	5
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	50.7	14.2	55.5
HCM LOS	F	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	0%	4%	100%	0%
Vol Thru, %	0%	97%	67%	0%	57%	0%	64%
Vol Right, %	0%	3%	0%	100%	39%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	501	193	114	482	103	27	136
LT Vol	501	0	38	0	4	27	0
Through Vol	0	188	76	0	59	0	87
RT Vol	0	5	0	482	40	0	49
Lane Flow Rate	545	210	124	524	112	29	148
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1	0.431	0.261	0.979	0.257	0.072	0.33
Departure Headway (Hd)	7.936	7.404	7.592	6.728	8.268	8.78	8.025
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	485	473	540	433	407	446
Service Time	5.712	5.179	5.339	4.475	6.337	6.548	5.793
HCM Lane V/C Ratio	1.193	0.433	0.262	0.97	0.259	0.071	0.332
HCM Control Delay	70.8	15.7	13	59.6	14.2	12.2	14.7
HCM Lane LOS	F	C	B	F	B	B	B
HCM 95th-tile Q	13	2.1	1	13.3	1	0.2	1.4

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	87	49
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	29	95	53
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.3
HCM LOS	B

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1814	2	0	1233	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	1972	2	0	1340	0	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1972
Stage 1	-	-	1972
Stage 2	-	-	670
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	290
Stage 1	-	-	94
Stage 2	-	-	470
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	290
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	94
Stage 2	-	-	470

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	247	-	-	290	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	19.7	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**

Int Delay, s/veh 0.9












Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	25	23	4	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	25	4	7	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	29	0	54
Stage 1	-	-	27
Stage 2	-	-	27
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	1584	-	954
Stage 1	-	-	996
Stage 2	-	-	996
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1584	-	954
Mov Cap-2 Maneuver	-	-	954
Stage 1	-	-	996
Stage 2	-	-	996

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1584	-	-	-	954
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0





























											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	547	1050	377	166	672	121	414	351	146	236	254
v/c Ratio	1.16	0.82	0.46	1.82	0.66	0.21	0.81	0.40	0.82	0.64	0.52
Control Delay	128.3	30.1	4.4	434.1	29.3	2.7	48.9	26.0	74.8	38.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.3	30.1	4.4	434.1	29.3	2.7	48.9	26.0	74.8	38.7	10.4
Queue Length 50th (ft)	~182	249	0	~135	156	0	110	77	77	115	15
Queue Length 95th (ft)	#308	368	57	#274	237	20	#205	115	#199	187	76
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	471	1406	856	91	1140	621	514	1184	177	535	611
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.75	0.44	1.82	0.59	0.19	0.81	0.30	0.82	0.44	0.42

**Intersection Summary**

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





El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Near-Term (2025) plus Project  
AM Peak

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		 	 					 		 	 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%				0%			0%		
Storage Length (ft)		290		210		200		450	200		0	185
Storage Lanes		2		0		1		1	2		0	1
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00
Ped Bike Factor												
Frt				0.850				0.850		0.994		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3434	3539	1583	0	1778	3539	1583	3433	3518	0	1770
Flt Permitted		0.800							0.950			0.950
Satd. Flow (perm)	0	2892	3539	1583	0	1872	3539	1583	3433	3518	0	1770
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				236				134		5		
Link Speed (mph)			50				50			30		
Link Distance (ft)			437				631			452		
Travel Time (s)			6.0				8.6			10.3		

Intersection Summary

Area Type: Other

		
Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1863	1583
Flt Permitted		
Satd. Flow (perm)	1863	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (mph)	30	
Link Distance (ft)	543	
Travel Time (s)	12.3	

Intersection Summary

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Near-Term (2025) plus Project  
 AM Peak




















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.865			0.995				0.850
Flt Protected		0.954					0.950			0.950		
Satd. Flow (prot)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Flt Permitted		0.954					0.950			0.950		
Satd. Flow (perm)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			452			452	
Travel Time (s)		6.0			16.4			10.3			10.3	

Intersection Summary

Area Type: Other

El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Near-Term (2025) plus Project  
 AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.959			0.948			0.996	
Flt Protected		0.997			0.980		0.950			0.950		
Satd. Flow (prot)	0	1857	1583	0	1751	0	1770	1766	0	1770	1855	0
Flt Permitted		0.997			0.980		0.950			0.950		
Satd. Flow (perm)	0	1857	1583	0	1751	0	1770	1766	0	1770	1855	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		2033			982			1162			698	
Travel Time (s)		46.2			22.3			17.6			10.6	

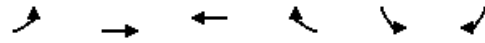
Intersection Summary

Area Type: Other

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		100	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	50			50	30	
Link Distance (ft)	1235			437	300	
Travel Time (s)	16.8			6.0	6.8	

**Intersection Summary**

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.972			
Flt Protected					0.950	
Satd. Flow (prot)	0	1863	1811	0	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1811	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		228	265		183	
Travel Time (s)		5.2	6.0		4.2	

**Intersection Summary**

Area Type: Other

**Appendix G:**

*Traffic Signal Warrant Worksheets*

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration



-----

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Intersection 2	No / No	??? / ???
# 3 Intersection 3	Yes	???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	0	0	1	1	0	0	0	0	1
Initial Vol:	1	420	14	37	540	10	19	0	0	0	0	53
ApproachDel:	xxxxxx			xxxxxx			27.5			11.2		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1094]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=53]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1094]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign										
Lanes:	0	0	1	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	1
Initial Vol:	1	420	14	37	540	10	19	0	0	0	0	53								
Major Street Volume:							1022													
Minor Approach Volume:							53													
Minor Approach Volume Threshold:							277													

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Intersection 3

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	364	125	50	108	236	4	2	29	509	71	67	63
Major Street Volume:							887					
Minor Approach Volume:							540					
Minor Approach Volume Threshold:							326					

SIGNAL WARRANT DISCLAIMER

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-----

Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Intersection 2	No / No	??? / ???
# 3 Intersection 3	Yes	???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0	0	0	1	0	0	1! 0	0	0	1! 0
Initial Vol:	2	501	16	54	520	16	12	2	5	20	1	86
ApproachDel:	xxxxxxx			xxxxxxx			35.7			21.5		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1235]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=107]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1235]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	1	0	1 0 1	0	0	1! 0 0	0	0	1! 0 0
Initial Vol:	2	501	16	54	520	16	12	2	5	20	1	86
Major Street Volume:							1109					
Minor Approach Volume:							107					
Minor Approach Volume Threshold:							249					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Intersection 3

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	479	257	37	27	154	3	2	48	495	27	37	35
Major Street Volume:							957					
Minor Approach Volume:							545					
Minor Approach Volume Threshold:	300											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

-----

Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----  
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	3	420	14			37	540	12			20	0	1			0	0			53					
ApproachDel:	xxxxxx					xxxxxx					35.7					11.7									

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=21]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1100]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=53]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1100]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	420		14		37	540		12		20	0		1		0	0		0	0	53	
Major Street Volume:											1026											
Minor Approach Volume:											53											
Minor Approach Volume Threshold:											276											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	366	125		50		108	236		4		2	29		510		71	67		63	
Major Street Volume:											889									
Minor Approach Volume:											541									
Minor Approach Volume Threshold:											325									

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	1		0	0	0		0	1488	0		0	1488	0	
ApproachDel:	16.0				xxxxxxx				xxxxxxx				xxxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=1]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=2977]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	1	0	0	0	0	0	0	1488	0	0	0	0	1488	0	0	0
Major Street Volume:					2976															
Minor Approach Volume:					1															
Minor Approach Volume Threshold:	-91 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		2	0	0		0	19	0		0	11	4	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=36]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0		0		0	2		0		0	0	19		0		0	11		4	
Major Street Volume:					34															
Minor Approach Volume:					2															
Minor Approach Volume Threshold:	1121																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	4	501	16			54	520	18			15	2	8			20	1	86							
ApproachDel:	xxxxxxx					xxxxxxx					36.3					21.8									

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1245]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=107]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1245]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1
Initial Vol:	4	501	16	54	520	18	15	2	8	20	1	86
Major Street Volume:	1113											
Minor Approach Volume:	107											
Minor Approach Volume Threshold:	248											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #3 Francisco Drive @ El Dorado Hills Boulevard
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Lanes, Initial Vol, Major Street Volume, Minor Approach Volume, and Minor Approach Volume Threshold.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future.

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction.

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	2		0	0	0		0	1569	2		0	1028	0	
ApproachDel:	16.8				xxxxxxx				xxxxxxx				xxxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=2601]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	2	0	0	0	0	0	0	1569	0	0	2	0	1028	0	0	0
Major Street Volume:					2599															
Minor Approach Volume:					2															
Minor Approach Volume Threshold:	-44 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		6	0	0		0	19	0		0	19	4	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=6]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=48]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0		0		0	6		0		0	0	19		0		0	19		4	
Major Street Volume:					42															
Minor Approach Volume:					6															
Minor Approach Volume Threshold:	1065																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	
Initial Vol:	1	370	12	38	484	13	23	0	0	0	0	0	0	0	54							
ApproachDel:	xxxxxx					xxxxxx					27.7					11.1						

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=23]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=995]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=54]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=995]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	
Initial Vol:	1	370	12			38	484	13			23	0	0			0	0	0	0	54		
Major Street Volume:											918											
Minor Approach Volume:											54											
Minor Approach Volume Threshold:											314											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	317	117	62	102	222	6	2	28	454	80	60	61
Major Street Volume:							826					
Minor Approach Volume:							484					
Minor Approach Volume Threshold:							351					

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

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Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	677	0	0	0	0	1680	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0		0	0	0	0		0	677	0			0	1680	0		
Major Street Volume:											2357									
Minor Approach Volume:											0									
Minor Approach Volume Threshold:											-11 [less than minimum of 100]									

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

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Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1!	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	14	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Initial Vol:	0	0	0		0	0	0		0	23	0		0	14	0	
Major Street Volume:													37			
Minor Approach Volume:													0			
Minor Approach Volume Threshold:	1099															

SIGNAL WARRANT DISCLAIMER

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----  
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0		
Initial Vol:	4	588	15	57	567	18	15	2	8	18	1	91	44.9	24.8								
ApproachDel:	xxxxxxx					xxxxxxx					44.9					24.8						

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1384]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=110]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1384]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1
Initial Vol:	4	588	15	57	567	18	15	2	8	18	1	91
Major Street Volume:							1249					
Minor Approach Volume:							110					
Minor Approach Volume Threshold:							208					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	499	188		5		27	87		49		38	76		479		4	59		40	
Major Street Volume:											855									
Minor Approach Volume:											593									
Minor Approach Volume Threshold:											339									

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

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Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	1814	0	0	0	0	1230	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	0		0	0	0		0	1814	0		0	1230	0	
Major Street Volume:													3044			
Minor Approach Volume:													0			
Minor Approach Volume Threshold:	-99 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1!	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	23	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled								
Lanes:	0	0	0	0	0	0	0	1	!	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	0		0		0	0		0		0	0		25		0	0		23		0	
Major Street Volume:					48																
Minor Approach Volume:					0																
Minor Approach Volume Threshold:					1029																

SIGNAL WARRANT DISCLAIMER

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	3	370	12	38	484	15	24	0	1	0	0	0	54	0	0	54	0	0	54	0	0	54			
ApproachDel:	xxxxxxx					xxxxxxx					27.5					11.1									

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1001]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=54]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1001]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1
Initial Vol:	3	370		12		38	484		15		24	0		1		0	0		0	54
Major Street Volume:											922									
Minor Approach Volume:											54									
Minor Approach Volume Threshold:											313									

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	319	117	62	102	222	6	2	28	455	80	60	61
Major Street Volume:							828					
Minor Approach Volume:							485					
Minor Approach Volume Threshold:							350					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

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Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	1		0	0	0		0	677	2		0	1681	0	
ApproachDel:	10.7				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=1]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=2361]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	1	0	0	0	0	0	0	677	0	0	2	0	1681	0	0	0
Major Street Volume:					2360															
Minor Approach Volume:					1															
Minor Approach Volume Threshold:	-11 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		2	0	0		0	23	0		0	14	4	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=43]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0		0		0	2		0		0	0	23		0		0	14		4	
Major Street Volume:											41									
Minor Approach Volume:											2									
Minor Approach Volume Threshold:	1071																			

SIGNAL WARRANT DISCLAIMER

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???



Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound										
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign										
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0						
Initial Vol:	6	588		15		57	567		20		18	2		11		18	1		91							
ApproachDel:	xxxxxxx					xxxxxxx					46.3					25.1										

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1394]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=110]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1394]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1
Initial Vol:	6	588	15	57	567	20	18	2	11	18	1	91
Major Street Volume:							1253					
Minor Approach Volume:							110					
Minor Approach Volume Threshold:							207					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	501	188		5		27	87		49		38	76		482		4	59		40	
Major Street Volume:											857									
Minor Approach Volume:											596									
Minor Approach Volume Threshold:											338									

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	2		0	0	0		0	1814	2		0	1233	0	
ApproachDel:	19.5				xxxxxxx				xxxxxxx				xxxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=3051]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	2		0	0	0		0	1814	2		0	1233	0	
Major Street Volume:													3049			
Minor Approach Volume:													2			
Minor Approach Volume Threshold:	-99 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		6	0	0		0	25	0		0	23	4	
ApproachDel:	xxxxxxx				8.8				xxxxxxx				xxxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=6]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=58]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0	0	0	0	0	6	0	0	0	0	0	25	0	0	0	0	23	0	4	0
Major Street Volume:					52															
Minor Approach Volume:					6															
Minor Approach Volume Threshold:	1008																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

*Traffic Impact Analysis*

**El Dorado Hills Memory Care Center (WO#22)  
El Dorado Hills, California**

June 5, 2015

**Prepared for:**

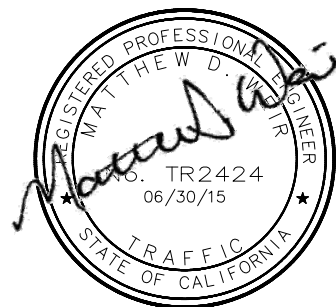
Sierra Capital & Investment, Inc.

**Prepared by:**

**Kimley»»Horn**

2720 Gateway Oaks Drive, Suite 310  
Sacramento, California 95833

Phone: (916) 858-5800





## EXECUTIVE SUMMARY

This report documents the results of a traffic impact analysis completed for the El Dorado Hills Memory Care Center project proposed to be located in the southwest corner of the Green Valley Road intersection with Francisco Drive in El Dorado Hills, 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 6.85-acre project site is proposed to be developed with a 40,000-square foot memory care center. Access to the site will be provided via one full access driveway along Cambria Way, and one right-in/right-out driveway along Green Valley Road. The following intersections are included in this evaluation:

1. Green Valley Road at Francisco Drive
2. Francisco Drive at Cambria Way/Embarcadero Drive
3. Francisco Drive at El Dorado Hills Boulevard
4. Green Valley Road at Project Site Access Driveway (Project Only)
5. Cambria Way at 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 (2015) Conditions
- B. Existing (2015) plus Proposed Project Conditions
- C. Near-Term (2025) Conditions
- D. Near-Term (2025) plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is estimated to generate 172 total new daily trips, with 9 new trips occurring during the AM peak-hour, and 14 new trips occurring during the PM peak-hour.
- The County’s current Travel Demand Model (TDM) incorporates non-residential growth for the subject parcel within the project’s Traffic Analysis Zone (TAZ #614). Because the project (20 employees, 64 beds) is less intensive than what is currently included in the County’s TDM (a total of 48 non-retail employees), new Cumulative (2035) analyses are not required to be completed as part of this study.
- As defined by the County, the addition of the proposed project to the Existing (2015) and Near-Term (2025) scenarios does not worsen conditions at the study intersections. As a result, the project’s potential environmental impacts to transportation facilities are considered to be ***less than significant***.

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## INTRODUCTION

This report documents the results of a traffic impact analysis completed for the El Dorado Hills Memory Care Center project proposed to be located in the southwest corner of the Green Valley Road intersection with Francisco Drive in El Dorado Hills, 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>1</sup>.

The remaining sections of this report document the proposed project, analysis methodologies, impacts and mitigation, and general study conclusions.

## PROJECT DESCRIPTION

The 6.85-acre project site is proposed to be developed with a 40,000-square foot memory care center. Access to the site will be provided via one full access driveway along Cambria Way, and one right-in/right-out driveway along Green Valley Road. The project location is shown in **Figure 1**, and the proposed project site plan is shown in **Figure 2**. The following intersections are included in this evaluation:

1. Green Valley Road at Francisco Drive
2. Francisco Drive at Cambria Way/Embarcadero Drive
3. Francisco Drive at El Dorado Hills Boulevard
4. Green Valley Road at Project Site Access Driveway (Project Only)
5. Cambria Way at Project Site Access Driveway (Project Only)

**Figure 3** illustrates the study facilities, existing traffic control, and existing lane configurations.

## PROJECT AREA ROADWAYS

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

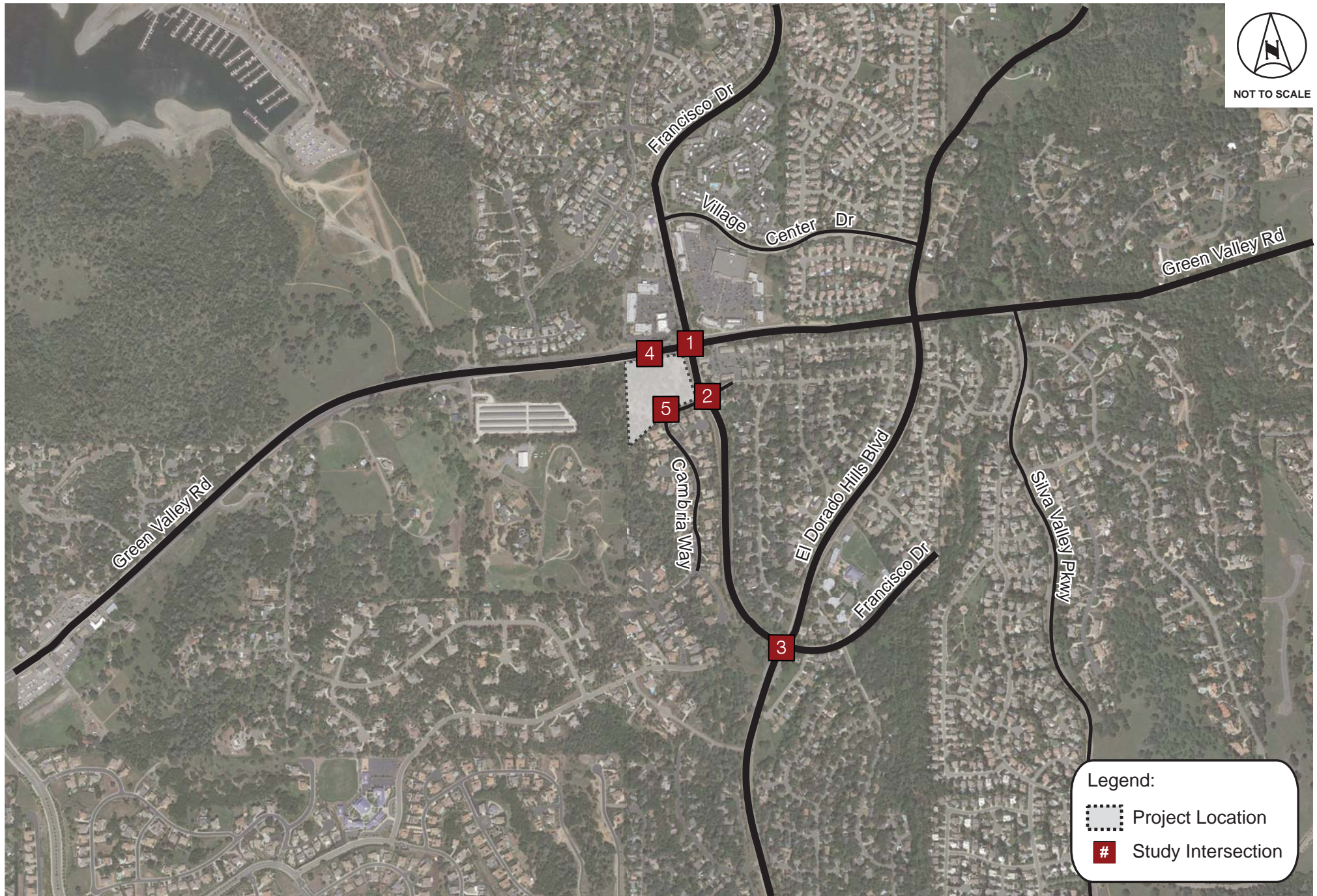
**US Route 50 (US-50)** is an east-west freeway located south of the project site. Generally, US-50 serves all of El Dorado County’s major population centers and provides connections to Sacramento County to the west and the State of Nevada to the east. Primary access to the project site from US-50 is provided at the El Dorado Hills Boulevard/Latrobe Road interchange. Within the general project area, US-50 currently serves approximately 90,000 vehicles per day<sup>2</sup> (vpd) with three travel lanes in each direction, west of El Dorado Hills Boulevard/Latrobe Road.

**Green Valley Road** is an east-west arterial roadway that connects Placerville with western portions of El Dorado County and eastern Sacramento County, south of Folsom Lake. Through the project area, Green Valley Road provides two travel lanes in each direction and serves approximately 25,600 vehicles per day<sup>3</sup>.

<sup>1</sup> Memorandum from Chirag Safi and Sara Muse, Kittelson & Associates, Inc., to Natalie Porter, El Dorado County, February 27, 2015.

<sup>2</sup> Caltrans Traffic and Vehicle Data Systems Unit, <http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2013all/>

<sup>3</sup> El Dorado County Department of Transportation, 2013.

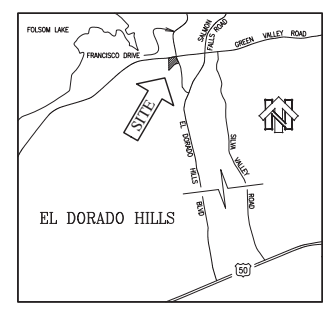
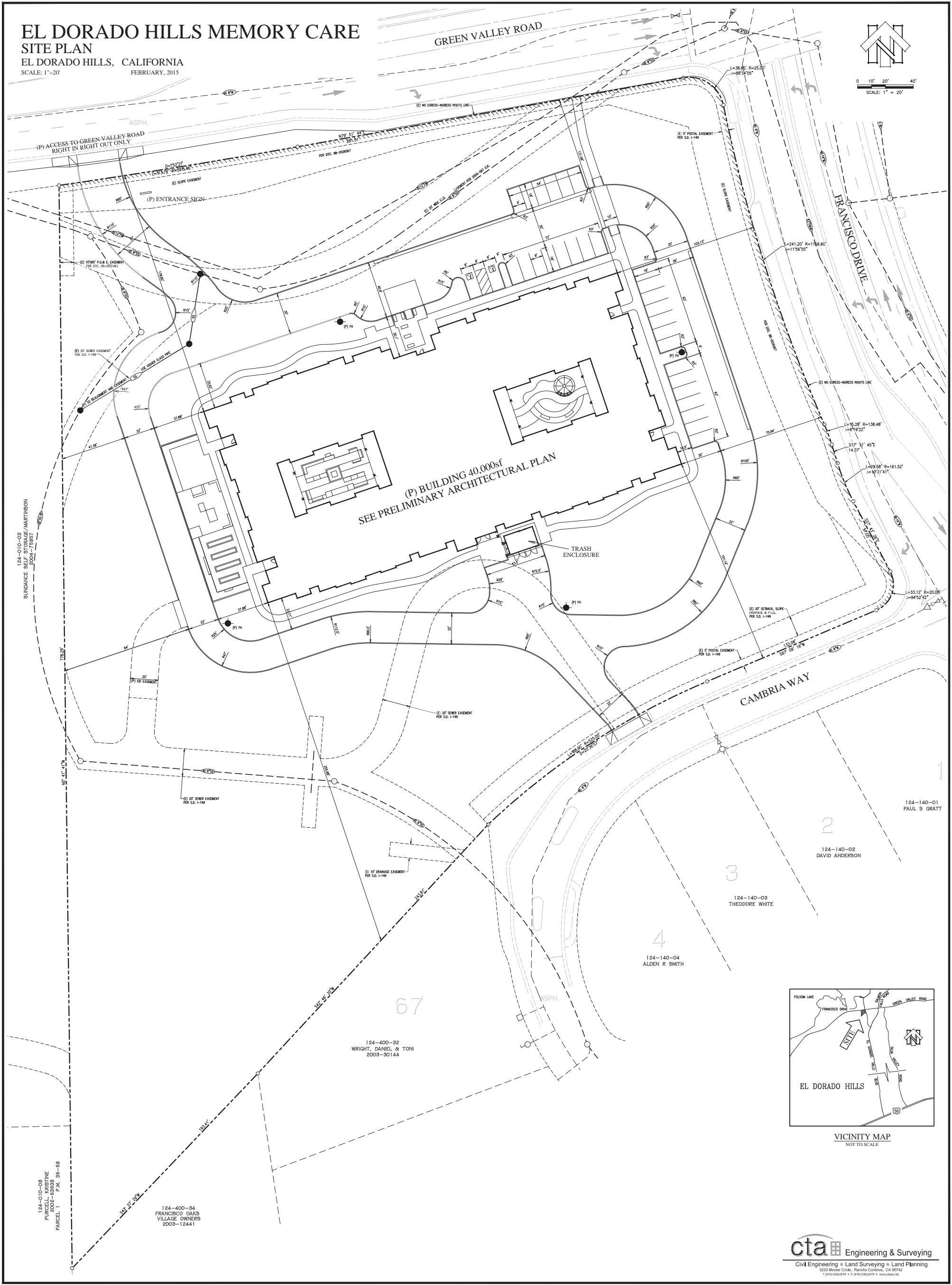


# EL DORADO HILLS MEMORY CARE

SITE PLAN  
 EL DORADO HILLS, CALIFORNIA  
 SCALE: 1"=20'  
 FEBRUARY, 2015



0 10' 20' 40'  
 SCALE: 1" = 20'



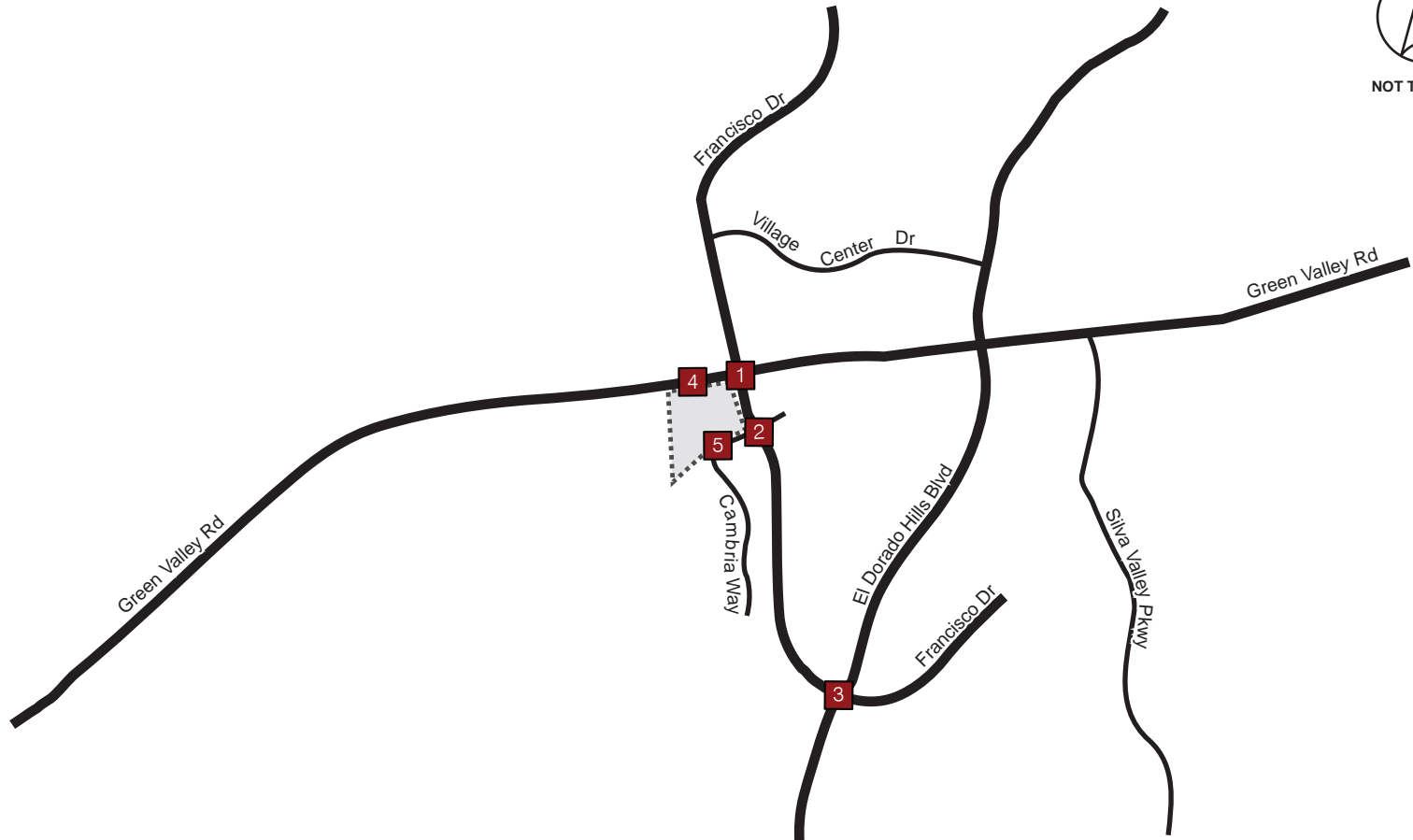
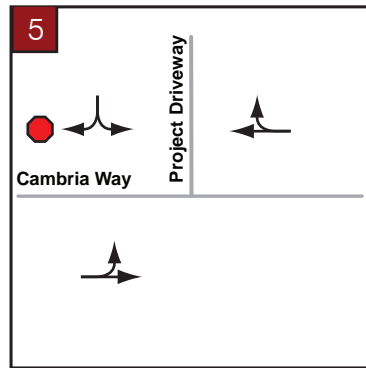
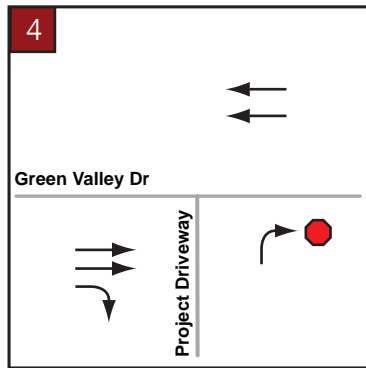
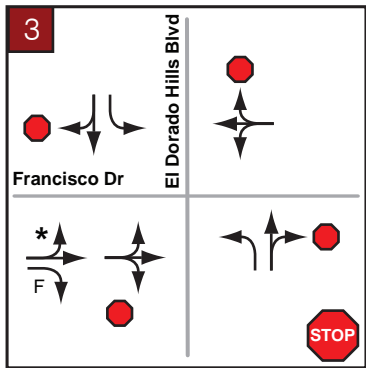
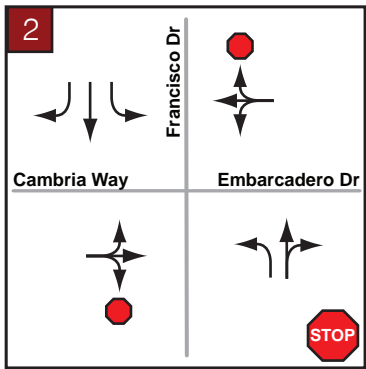
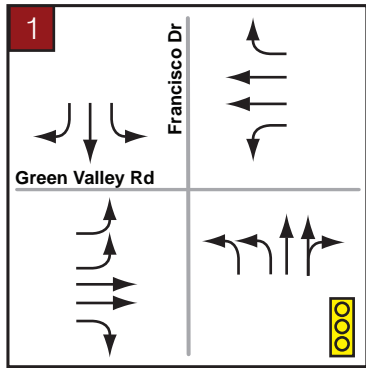
VICINITY MAP  
 NOT TO SCALE

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M:\15-02-01\ENGINEERING\15-02-01 SITE PLAN.dwg, 2/2/2015 3:37:51 PM, AutoCAD



NOT TO SCALE



LEGEND	
#	Study Intersection
STOP	Stop Controlled Study Intersection
Light symbol	Signalized Study Intersection
F	Free Movement
Dashed box	Project Location

\*2025 Conditions Configuration

**Francisco Drive** is a north-south collector roadway that provides access to residential areas north of Green Valley Road and connects with El Dorado Hills Boulevard to the south. Francisco Drive has one travel lane in each direction and serves as a primary southern connection between El Dorado Hills Boulevard and Green Valley Road for vehicles destined for, and coming from points to the west.

**Cambria Way** and **Embarcadero Drive** are two-lane local roadways that provide access to residential areas surrounding Francisco Drive. The proposed project has direct access to Cambria Way.

## ASSESSMENT OF PROPOSED PROJECT

### Proposed Project Trip Generation

Memory care living 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, 9<sup>th</sup> Edition* based on the “Assisted Living” category (ITE Land Use 254). “Assisted Living” is understood to represent residential settings that provide assistance to mentally or physically limited persons, typically with Alzheimer’s or ALS, similar to the proposed project. As noted in the *Trip Generation Manual*, employees, visitors, and delivery trucks make most of the trips to these facilities. Truck traffic was captured for some of the studies used in developing the ITE rates, and the findings indicate that truck traffic volume was very low overall, with most trips occurring in the weekday midday period. The anticipated trip generation for this project is shown in **Table 1**.

**Table 1 – Proposed Project Trip Generation**

Land Use (ITE Code)	Size (# beds)	Daily Trips	AM Peak-Hour				PM Peak-Hour					
			Total Trips	IN		OUT		Total Trips	IN		OUT	
				%	Trips	%	Trips		%	Trips	%	Trips
Assisted Living (254)	64	172	9	65%	6	35%	3	14	44%	6	56%	8
<b>Net New External Trips:</b>		<b>172</b>	<b>9</b>		<b>6</b>		<b>3</b>	<b>14</b>		<b>6</b>		<b>8</b>

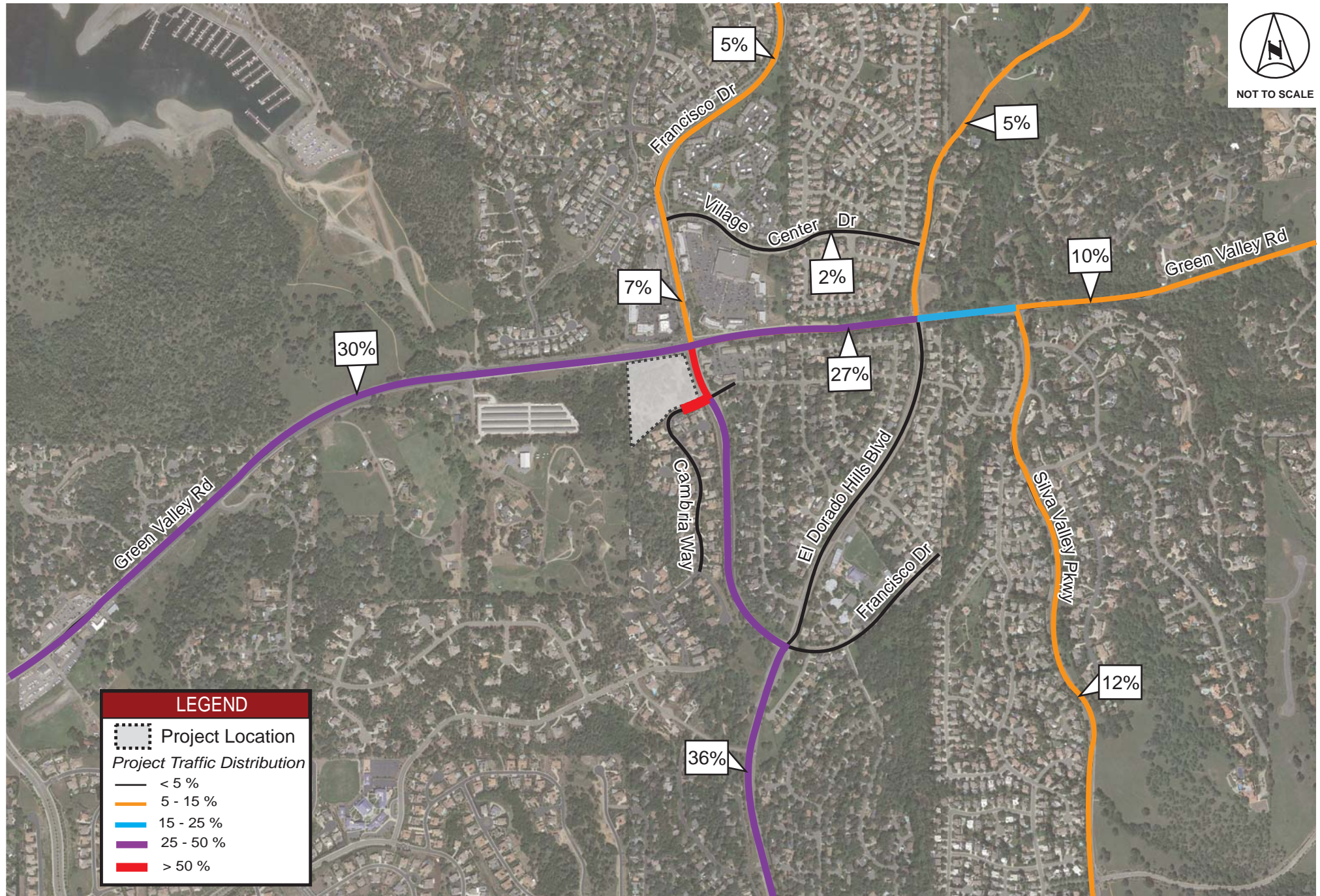
Source: *Trip Generation Manual, 9<sup>th</sup> Edition*, ITE.

As shown in **Table 1**, the proposed project is estimated to generate 172 total new daily trips, with 9 new trips occurring during the AM peak-hour, and 14 new trips occurring during the PM peak-hour. For additional reference, the maximum peak hour trip generation for the facility, which is anticipated to occur on Sunday afternoons, was estimated to be 23 peak hour trips.

### Proposed Project Trip Distribution

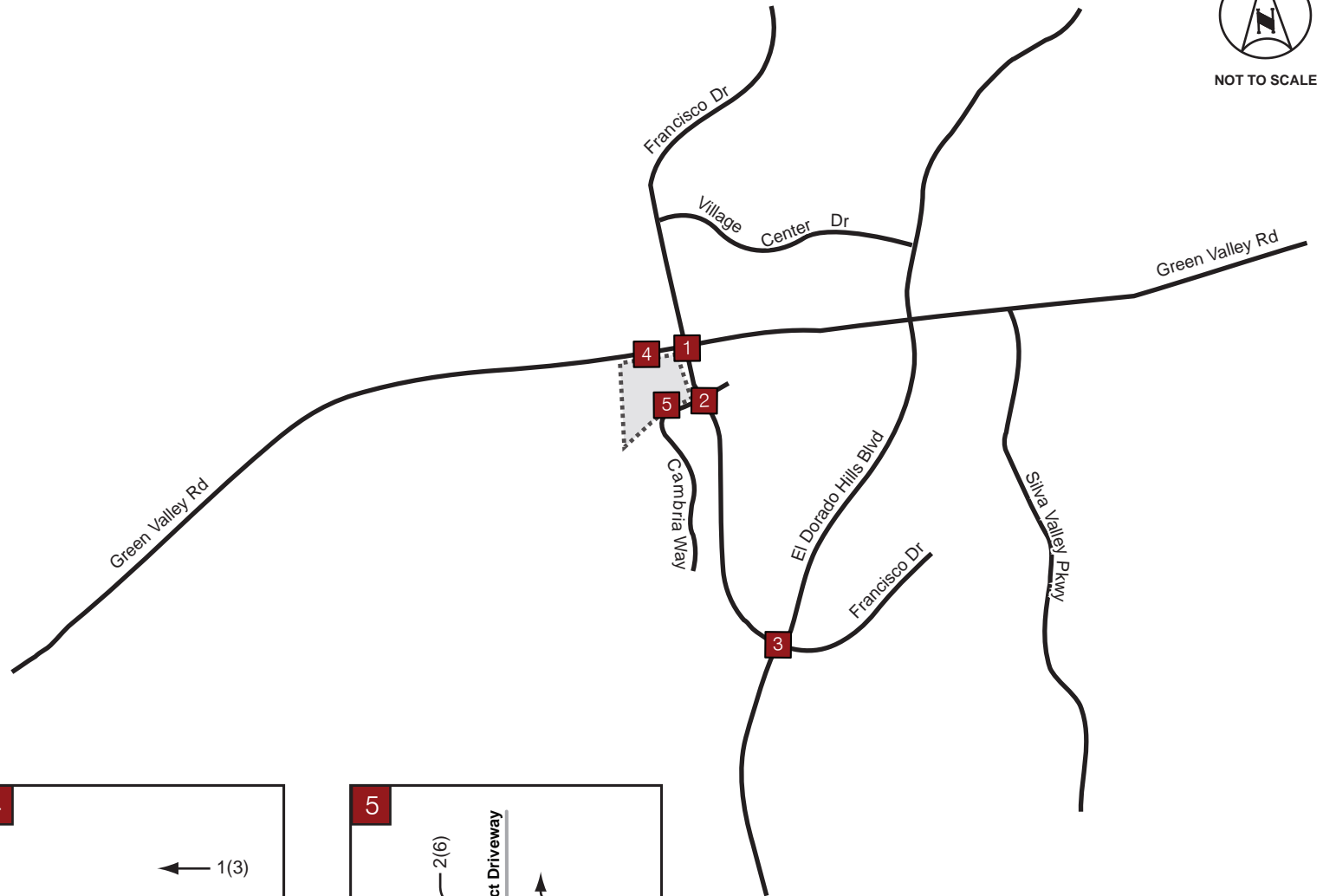
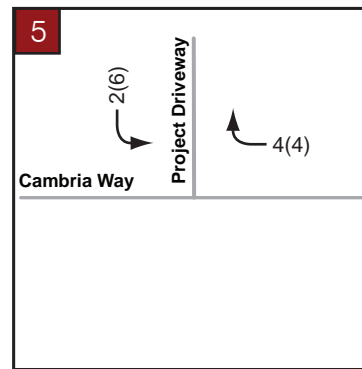
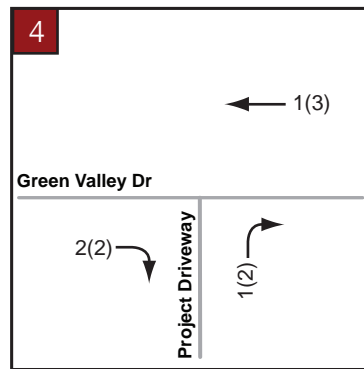
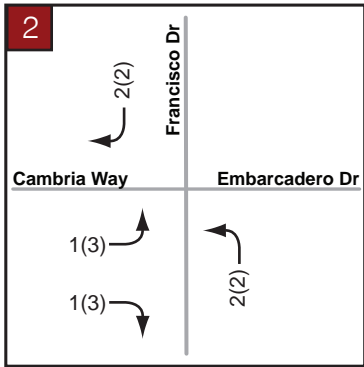
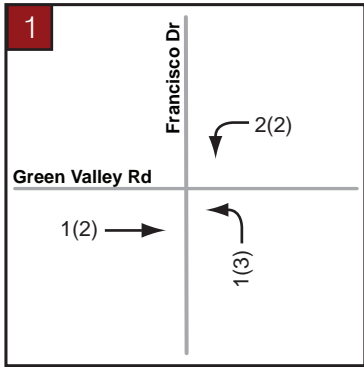
The distribution of project traffic was based on existing traffic volumes and general knowledge of the travel patterns in western El Dorado County. The project trip distribution percentages are illustrated in **Figure 4**. The resulting AM and PM peak-hour traffic volumes attributed to the proposed project are illustrated in **Figure 5**.







NOT TO SCALE



LEGEND	
#	Study Intersection
XX(YY)	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.

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

### Consistency with General Plan Land Use Designation

As confirmed by a representative of the County<sup>4</sup>, the County’s current Travel Demand Model (TDM) incorporates non-residential growth for the subject parcel within the project’s Traffic Analysis Zone (TAZ #614). Because the project (20 employees, 64 beds) is less intensive than what is currently included in the County’s TDM (a total of 48 non-retail employees), new Cumulative (2035) analyses are not required to be completed as part of this study.

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 (2015) Conditions
- B. Existing (2015) plus Proposed Project Conditions
- C. Near-Term (2025) Conditions
- D. Near-Term (2025) plus Proposed Project Conditions

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

<sup>4</sup> Email from Chirag Safi, Kittelson & Associates, Inc., April 15, 2015.

## EXISTING (2015) CONDITIONS

Recent peak-hour traffic volumes for the Green Valley Road intersection with Francisco Drive intersection were obtained from a recent study completed, by others, for the Green Valley Road Corridor<sup>5</sup>. Two (2) new weekday AM and PM peak period intersection turning movement traffic counts were conducted in March 2015, for the Francisco Drive intersections with Cambria Way/Embarcadero Drive and El Dorado Hills Boulevard. These counts were conducted between the hours of 6:30 a.m. and 9:30 a.m. and 3:30 p.m. and 6:30 p.m. It is worth noting that a two percent heavy vehicle factor was incorporated in this, and all subsequent analysis scenarios. At the time of this study, the El Dorado Hills Boulevard intersection with Francisco Drive was under construction to implement the County’s Capital Improvement Project (CIP) #71358 (Francisco Drive Right-Turn Pocket). This project involves the addition of an eastbound right-turn lane from Francisco Drive and a complementary southbound receiving lane onto El Dorado Hills Boulevard. These improvements are reflected in all subsequent analysis scenarios.

Existing (2015) peak-hour turn movement volumes are presented in **Figure 6**, and the traffic count data sheets are provided in **Appendix A**. **Table 3** presents the peak-hour intersection operating conditions for this analysis scenario.

**Table 3 – Existing (2015) Intersection Levels of Service**

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour	
			Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	Signal	43.7	D	29.9	C
2	Francisco Drive @ Cambria Way/Embarcadero Drive	SSSC*	36.2 (EB)	E	34.5 (EB)	D
3	El Dorado Hills Boulevard @ Francisco Drive	AWSC	<b>54.0</b>	<b>F</b>	48.7	E
4	Green Valley Road @ Project Site Access Driveway	SSSC*	<i>Plus Project Analysis Scenarios Only</i>			
5	Cambria Way @ Project Site Access Driveway	SSSC*				
* Control delay for worst minor approach (worst minor movement) for SSSC. <b>Bold = Substandard per County</b>						

As indicated in **Table 3**, the study intersections operate from LOS C to LOS F during the AM and PM peak-hours. Analysis worksheets for this scenario are provided in **Appendix B**.

<sup>5</sup> Final Corridor Analysis Report, Green Valley Road, Kittelson & Associates, Inc., October 2014

# El Dorado Hills Memory Care Center: Traffic Impact Analysis

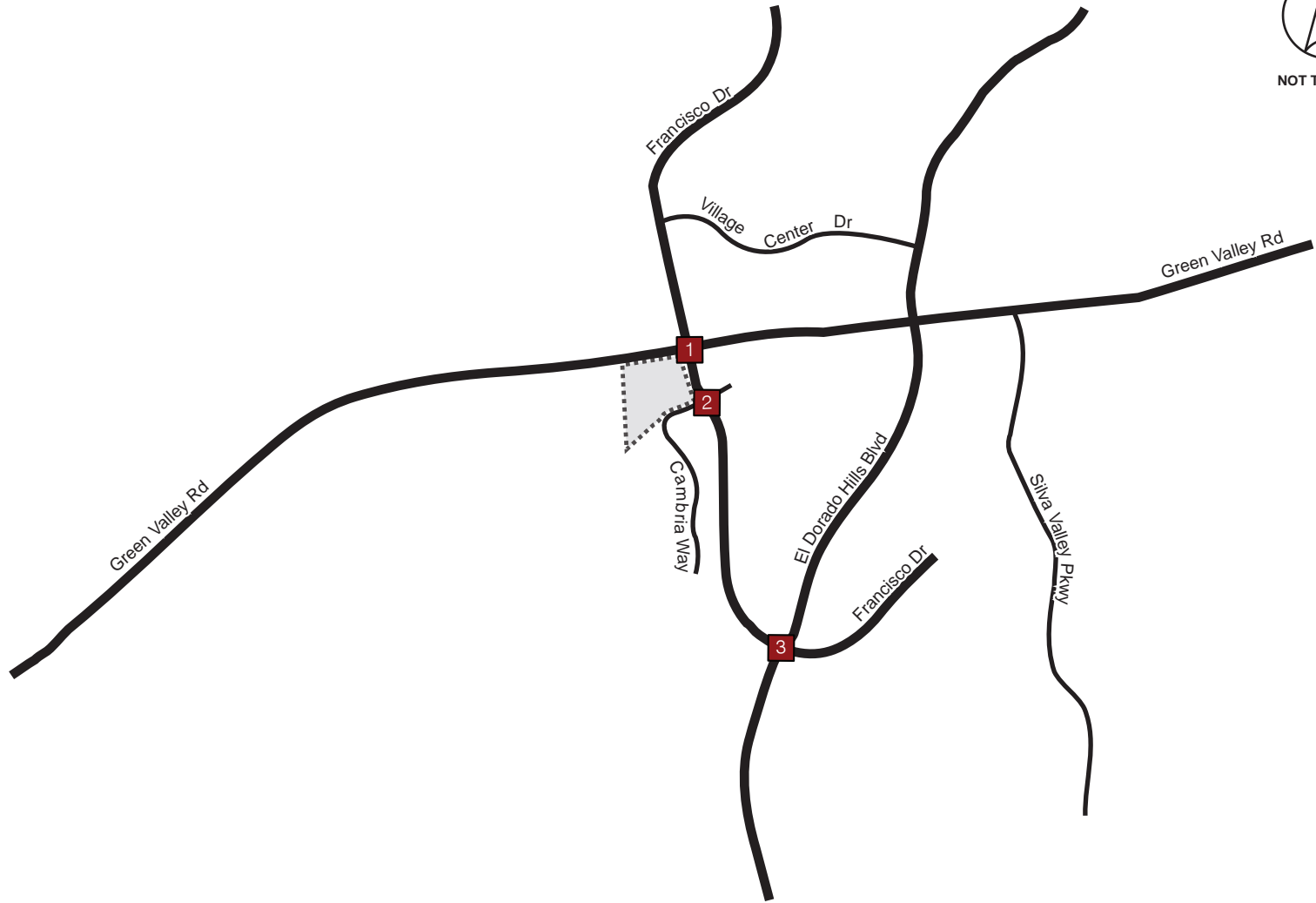


NOT TO SCALE

<b>1</b>		
<b>Green Valley Rd</b>		

<b>2</b>		
<b>Cambria Way</b>		

<b>3</b>		
<b>Francisco Dr</b>		



LEGEND	
<span style="background-color: #800000; color: white; padding: 2px;">#</span>	Study Intersection
	XX(XX) AM(PM) Peak-Hour Volumes

Note:  
 Counts for Intersection 1 obtained from Quality Counts, LLC conducted on May 6, 2014.  
 Counts for Intersections 2 and 3 obtained from All Traffic Data conducted on March 24, 2015.

## EXISTING (2015) 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. **Table 4** 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 4 – Existing (2015) and Existing (2015) plus Proposed Project Intersection Levels of Service**

#	Intersection	Analysis Scenario <sup>+</sup>	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	Exist.	Signal	43.7	D	29.9	C
		Exist.+PP		43.8	D	30.1	C
2	Francisco Drive @ Cambria Way/Embarcadero Drive	Exist.	SSSC*	36.2 (EB)	E	34.5 (EB)	D
		Exist.+PP		36.2 (EB)	E	35.0 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	Exist.	AWSC	<b>54.0</b>	<b>F</b>	48.7	E
		Exist.+PP		<b>53.8</b>	<b>F</b>	48.8	E
4	Green Valley Road @ Project Site Access Driveway	Exist.	<i>Plus Project Analysis Scenarios Only</i>				
		Exist.+PP	SSSC*	10.4 (NB)	B	17.0 (NB)	C
5	Cambria Way @ Project Site Access Driveway	Exist.	<i>Plus Project Analysis Scenarios Only</i>				
		Exist.+PP	SSSC*	8.7 (SB)	A	8.7 (SB)	A

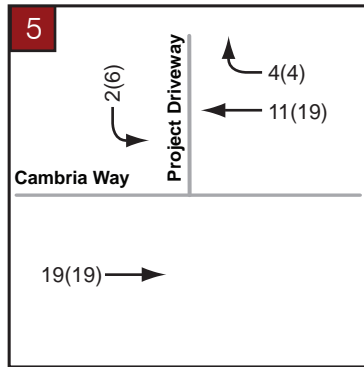
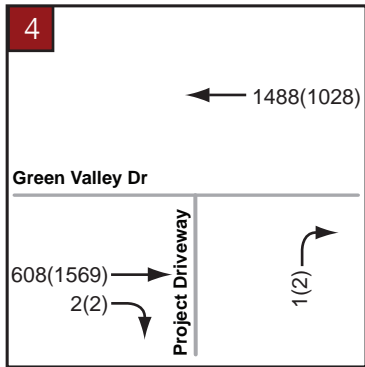
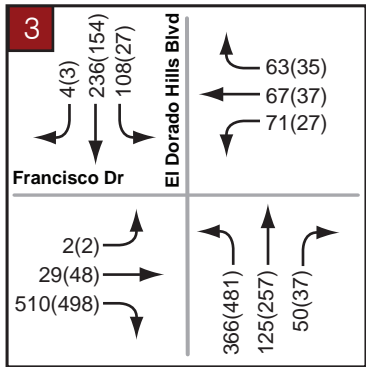
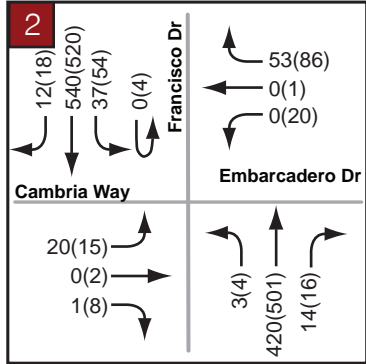
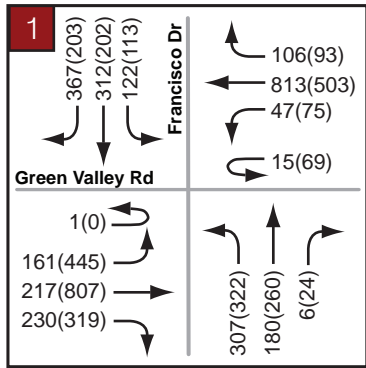
<sup>+</sup> Exist. = Existing (2015), Exist. + PP = Existing (2015) plus Proposed Project  
<sup>\*</sup> Control delay for worst minor approach (worst minor movement) for SSSC. **Bold = Substandard per County**

As indicated in **Table 4**, the study intersections operate from LOS A to LOS F with the addition of project traffic during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in **Appendix C**.

# El Dorado Hills Memory Care Center: Traffic Impact Analysis



NOT TO SCALE



LEGEND	
#	Study Intersection
XX(XX) AM(PM) Peak-Hour Volumes	

## NEAR-TERM (2025) CONDITIONS

Consistent with the traffic forecasting methodology specified by a representative of the County<sup>1</sup>, traffic projections for this study are based on the County’s current Travel Demand Model (TDM)<sup>6</sup> and recently approved 20-year growth projections. These Near-Term, year 2025 conditions are based on a straight-line interpolation between model Existing (2010) and Cumulative (2035) forecast. Details regarding the volume forecasting and intersection turning movement development are presented in **Appendix D**.

**Table 5** provides a summary of the intersection analysis and **Figure 8** provides the AM and PM traffic volumes for this analysis scenario.

**Table 5 – Near-Term (2025) Intersection Levels of Service**

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour	
			Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	Signal	44.6	D	46.3	D
2	Francisco Drive @ Cambria Way/Embarcadero Drive	SSSC*	28.1 (EB)	D	43.6 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	AWSC	39.8	E	46.1	E
4	Green Valley Road @ Project Site Access Driveway	SSSC*	<i>Plus Project Analysis Scenarios Only</i>			
5	Cambria Way @ Project Site Access Driveway	SSSC*				

\* Control delay for worst minor approach (worst minor movement) for SSSC.

As indicated in **Table 5**, the study intersections operate from LOS C to LOS E during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in **Appendix E**.

## NEAR-TERM (2025) PLUS PROPOSED PROJECT CONDITIONS

Peak-hour traffic associated with the proposed project was added to the Near-Term (2015) traffic volumes, and levels of service were determined at the study facilities. **Table 6** 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.

As indicated in **Table 6**, the study intersections operate from LOS A to LOS E during the AM and PM peak-hours. The analysis worksheets for this scenario are provided in **Appendix F**.

<sup>6</sup> As directed by a representative of the County, the Dixon Ranch project was manually added to the County’s 2035 TDM for use in the traffic forecasting efforts for this project.



# El Dorado Hills Memory Care Center: Traffic Impact Analysis

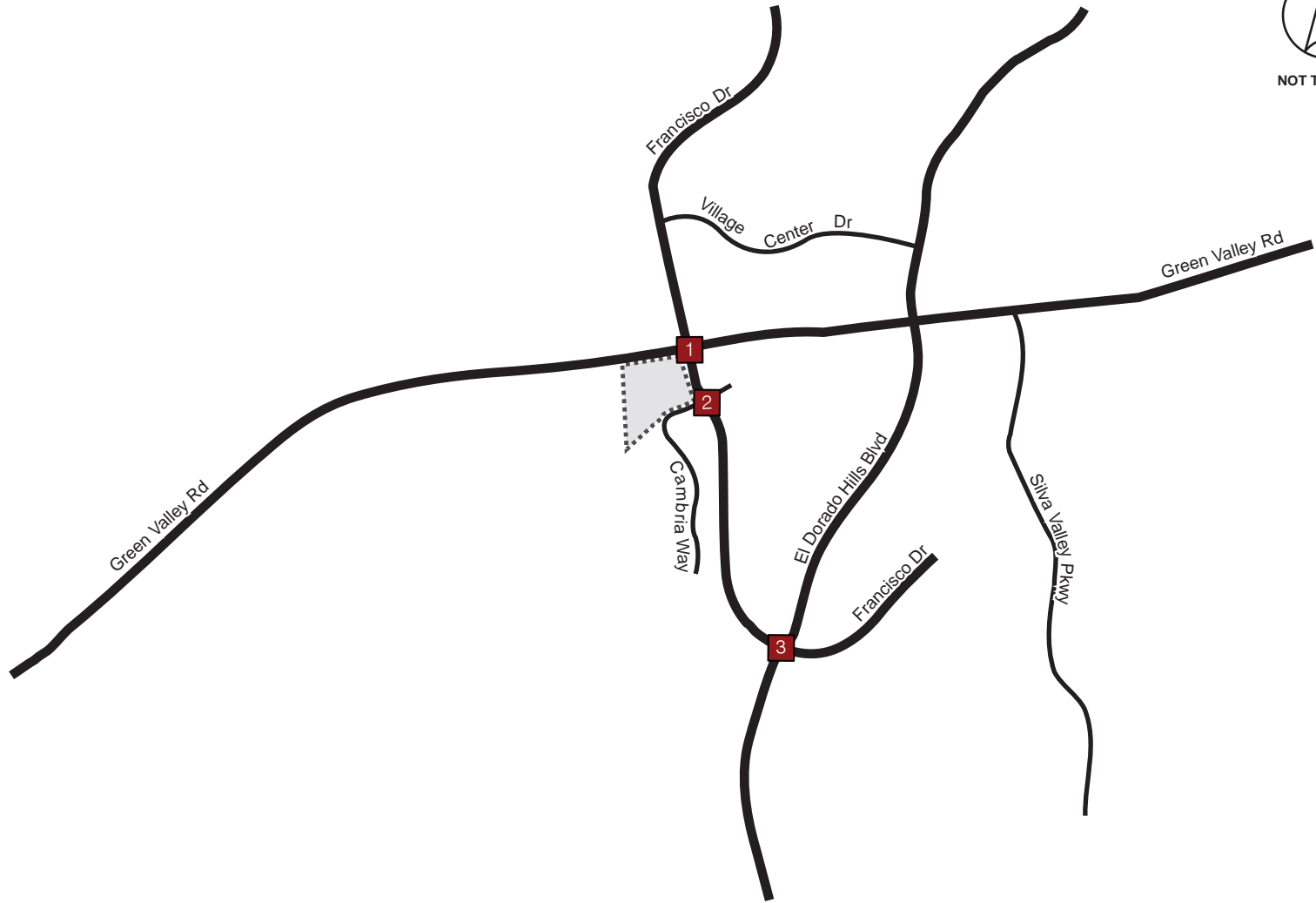


NOT TO SCALE

<b>1</b>	<p>424(234) 274(217) 141(134)</p> <p>Francisco Dr</p>	<p>123(111) 974(618) 44(85) 15(65)</p>
Green Valley Rd	<p>2(0) 192(503) 266(964) 217(347)</p>	<p>280(378) 161(292) 6(31)</p>

<b>2</b>	<p>13(18) 484(567) 38(57) 0(7)</p> <p>Francisco Dr</p>	<p>54(91) 0(1) 0(18)</p>
Cambria Way	<p>23(15) 0(2) 0(8)</p>	<p>1(4) 370(588) 12(15)</p>

<b>3</b>	<p>6(49) 222(87) 102(27)</p> <p>Francisco Dr</p>	<p>61(40) 60(59) 80(4)</p>
El Dorado Hills Blvd	<p>2(38) 28(76) 454(479)</p>	<p>317(499) 117(188) 62(5)</p>

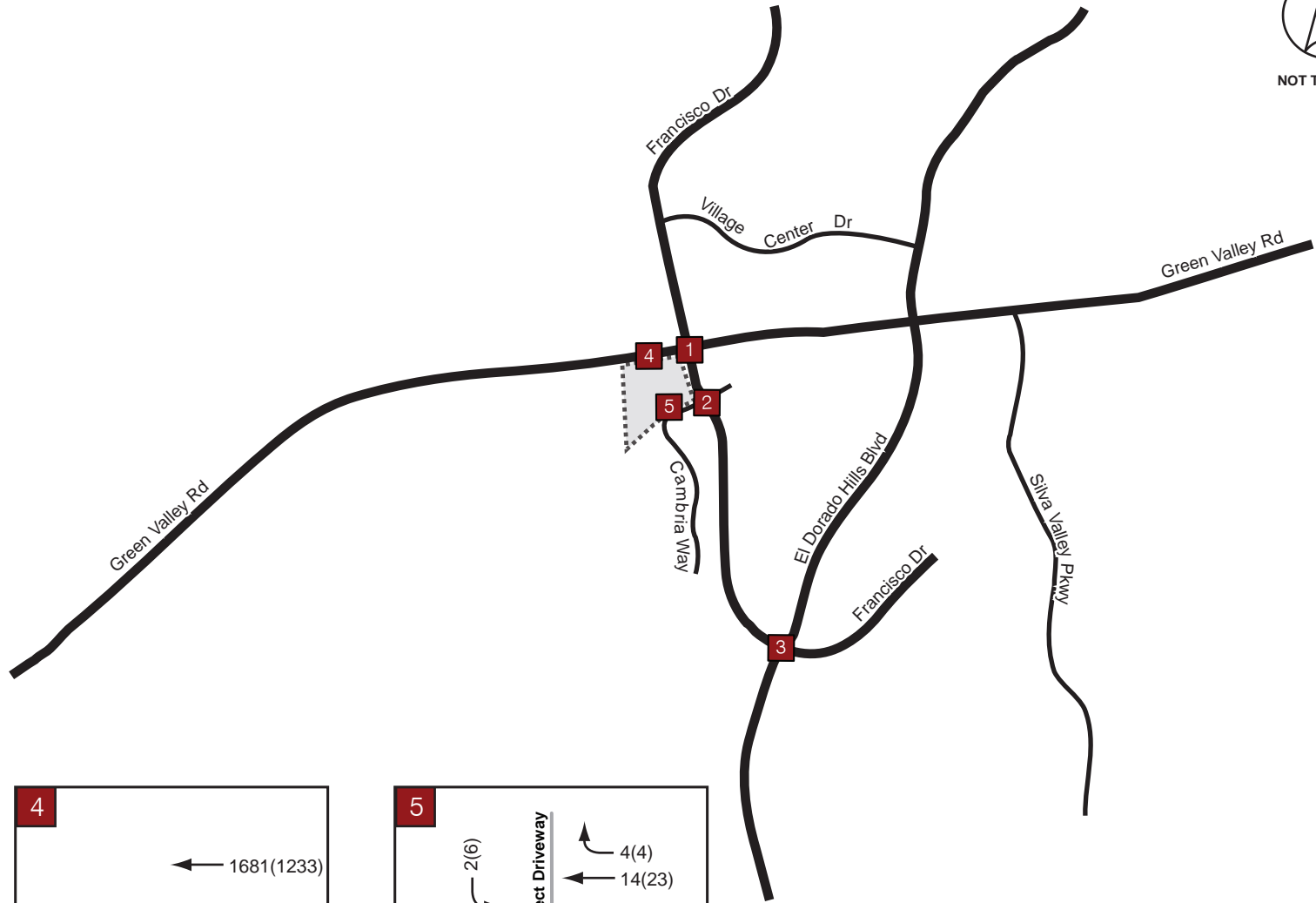
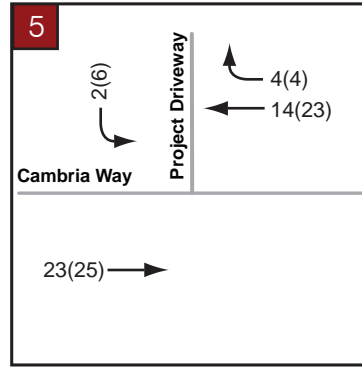
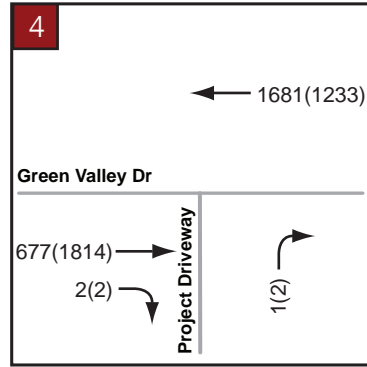
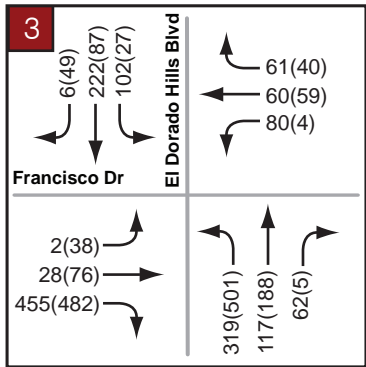
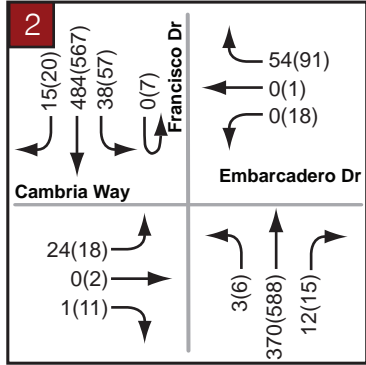
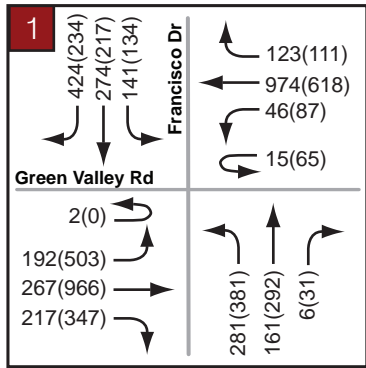


LEGEND	
<span style="background-color: #800000; color: white; padding: 2px;">#</span>	Study Intersection
XX(XX) AM(PM) Peak-Hour Volumes	

# El Dorado Hills Memory Care Center: Traffic Impact Analysis



NOT TO SCALE



LEGEND	
<span style="background-color: #800000; color: white; padding: 2px;">#</span>	Study Intersection
XX(XX) AM(PM) Peak-Hour Volumes	

**Table 6 – Near-Term (2025) and Near-Term (2025) plus Proposed Project Intersection Levels of Service**

#	Intersection	Analysis Scenario <sup>+</sup>	Traffic Control	AM Peak-Hour		PM Peak-Hour	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Green Valley Road @ Francisco Drive	NT	Signal	44.6	D	46.3	D
		NT+PP		44.7	D	46.7	D
2	Francisco Drive @ Cambria Way/Embarcadero Drive	NT	SSSC*	28.1 (EB)	D	43.6 (EB)	E
		NT+PP		27.8 (EB)	D	44.1 (EB)	E
3	El Dorado Hills Boulevard @ Francisco Drive	NT	AWSC	39.8	E	46.1	E
		NT+PP		40.0	E	46.6	E
4	Green Valley Road @ Project Site Access Driveway	NT	<i>Plus Project Analysis Scenarios Only</i>				
		NT+PP	SSSC*	10.7 (NB)	B	19.7 (NB)	C
5	Cambria Way @ Project Site Access Driveway	NT	<i>Plus Project Analysis Scenarios Only</i>				
		NT+PP	SSSC*	8.7 (SB)	A	8.8 (SB)	A

<sup>+</sup> NT = Near-Term (2025), NT + PP = NT (2025) plus Proposed Project  
<sup>\*</sup> Control delay for worst minor approach (worst minor movement) for SSSC.

## 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>7</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 intersections 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>8</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.”

<sup>7</sup> *Transportation Impact Study Guidelines*, El Dorado County Community Development Agency, November 2014.

<sup>8</sup> *El Dorado County General Plan, Transportation and Circulation Element*, July 2004.

### Impacts and Mitigation

#### Existing (2015) plus Proposed Project Conditions

As reflected in **Table 4**, the addition of the proposed project does not result in a significant impact as defined by the County.

Impacts:

*None.*

Mitigation:

*None Required.*

#### Near-Term (2025) plus Proposed Project Conditions

As reflected in **Table 6**, the addition of the proposed project does not result in a significant impact as defined by the County.

Impacts:

*None.*

Mitigation:

*None Required.*

### 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 are presented in **Table 7**.

**Table 7 – Traffic Signal Warrant Analysis Results**

#	Intersection	Analysis Scenario			
		Existing (2015)	Existing (2015) plus PP	Near-Term (2025)	Near-Term (2025) plus PP
2	Francisco Dr @ Cambria Wy	No / No	No / No	No / No	No / No
3	El Dorado Hills Blvd @ Francisco Dr	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
4	Cambria Way @ Project Access Dwy		No / No		No / No
5	Green Valley Rd @ Site Access Dwy		No / No		No / No
Results are presented in <b>AM / PM format</b> .					
Note: Peak-hour warrant is satisfied if Condition A or B is met.					

As shown in **Table 7**, intersection #3 (El Dorado Hills Blvd @ Francisco Dr) satisfies the peak-hour signal warrant with and without the addition of the proposed project. However, the proposed project does not cause the peak-hour signal warrant to be satisfied at any of the study intersections. Detailed results of this analysis are presented in **Appendix G**.

### Sight Distance Evaluation

A sight distance evaluation was completed for both site access driveways (Intersections #4 and #5). These evaluations were based on observed horizontal and vertical geometric conditions and were performed in accordance with the guidelines presented in the *Geometric Design of Highways and Streets, 2011*, published by the American Association of State Highway and Transportation Officials (AASHTO).

According to AASHTO, an assumed 30 mph design speed (25 mph posted speed limit) requires a minimum of 200 feet of Stopping Sight Distance (SSD). Adequate SSD was documented along the Cambria Way approaches to the site driveway. Furthermore, an assumed 60 mph design speed (55 mph posted speed limit) requires a minimum of 570 feet of SSD. Adequate sight distance was observed to the left (west) for the Green Valley Road intersection with the site access driveway.

To more thoroughly assess conditions for eastbound Cambria Way traffic at Francisco Drive, we also completed an evaluation of sight distance for this intersection approach. According to AASHTO, an assumed 45 mph design speed (40 mph posted speed limit) requires a minimum of 360-feet of SSD. Adequate AASHTO SSD was documented along the Francisco Drive approaches to Cambria Way. In all cases, roadside vegetation should be maintained to preserve sight distance.

### 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 8**. Analysis sheets that include the anticipated vehicle queues are presented in Appendices B, C, E, and F. As presented in **Table 8**, the addition of the proposed project adds additional queuing to several of the study locations.

### 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 two (2) driveways, one along Cambria Way and one along Green Valley Road. Level of service and delay data was previously reported for these intersections. The combination of these two access points, as well as the on-site circulation system provides adequate access to/from both Green Valley Road and Francisco Drive (via Cambria Way).

The proposed project's Green Valley Road Driveway is proposed to accommodate both right-in and right-out movements. Adequate deceleration distance should be provided and the acceleration distance should be considered as part of the existing eastbound right-turn pocket. The proposed geometrics and access are virtually identical to the existing Safeway center driveway located along the westbound approach to the Green Valley Road intersection with Francisco Drive. Furthermore, as documented in Appendices B, C, E, and F, the northbound right movement from the proposed project is not anticipated to be blocked by the eastbound approach queues at the Green Valley Road intersection with Francisco Drive.

In addition, *Fire Safe Regulations*<sup>9</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.

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<sup>9</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 8 – 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, Green Valley Rd @ Francisco Dr</b>		<b>NB Left</b>			
	Existing (2015)	200 <sup>+</sup>	151	200 <sup>+</sup>	157
	Existing plus Proposed Project (2015)		152		160
	Near-Term (2025)		128		204
	Near-Term plus Proposed Project (2025)		129		205
		<b>WB Left</b>			
	Existing (2015)	200	98	200	259
	Existing plus Proposed Project (2015)		115		261
	Near-Term (2025)		96		269
	Near-Term plus Proposed Project (2025)		100		274
<b>#2, Francisco Dr @ Cambria Way</b>		<b>EB Left</b>			
	Existing (2015)	*	25	*	25
	Existing plus Proposed Project (2015)		25		25
	Near-Term (2025)		25		25
	Near-Term plus Proposed Project (2025)		25		25
<b>#3, Francisco Dr @ El Dorado Hills Blvd</b>		<b>NB Left</b>			
	Existing (2015)	100	303 <sup>++</sup>	100	399 <sup>++</sup>
	Existing plus PP (2015)		305 <sup>++</sup>		401 <sup>++</sup>
	Near-Term (2025)		264 <sup>++</sup>		416 <sup>++</sup>
	Near-Term plus PP (2025)		266 <sup>++</sup>		418 <sup>++</sup>
<b>#4, Green Valley Rd @ Site Dwy</b>		<b>NB</b>			
	Existing (2015)	*		*	
	Existing plus PP (2015)		0		0
	Near-Term (2025)				
	Near-Term plus PP (2025)		0		0
<b>#5, Cambria Wy @ Site Dwy</b>		<b>SB</b>			
	Existing (2015)	*		*	
	Existing plus PP (2015)		0		0
	Near-Term (2025)				
	Near-Term plus PP (2025)		0		0

Source: *Highway Capacity Manual (HCM) 2010* methodology per Synchro<sup>®</sup> v9.  
\* Intersection approach with available storage length equal to segment length; \* Dual left-turn lane; \*\* Source: Per Page 9-127, *A Policy on Geometric Design of Highways and Streets*, AASHTO, 2011. ((Peak-Hour Volume/30 min)\*25 feet)

**Preliminary Traffic Safety Evaluation**

According to the County’s 2011 *Accident Location Study*<sup>10</sup>, several study area sites (i.e., intersections and roadway segments) experienced three (3) or more accidents during a three-year period between January 1, 2009, and December 31, 2011. According to the Study, these sites were selected for investigation and determination of corrective action(s). **Table 9** provides a summary of the study area sites and their selected actions.

According to the *Study*, eight (8) sites “do not require further review at this time. However, these sites will continue to be monitored and any subsequent increase in the frequency of accidents may necessitate further review and analysis.” One (1) site has a pending improvement and it is anticipated that, “upon completion, [this] improvement will substantially reduce the number of accidents.”

<sup>10</sup> *Annual Accident Location Study 2011*, County of El Dorado Department of Transportation, March 18, 2012.

**Table 9 – Project Area Sites Selected for Investigation**

Site #	Location Description	Accident Rate <sup>+</sup>	Identified Action
13	El Dorado Hills Blvd, US 50 On/Off Ramps	1.07	Pending Improvements
14	El Dorado Hills Blvd, North of Lassen/Serrano Pkwy	0.25	None Required
15	El Dorado Hills Blvd, South of Wilson Blvd	0.12	None Required
16	El Dorado Hills Blvd, at Crown Dr	0.24	None Required
20	Green Valley Rd, vicinity of Sophia Pkwy	0.48	None Required
21	Green Valley Rd, vicinity of Amy's Ln	0.18	None Required
22	Green Valley Rd, vicinity of Mormon Island Dr	0.17	None Required
23	Green Valley Rd, vicinity of Silva Valley Pkwy	0.68	None Required
57	Serrano Pkwy, vicinity of El Dorado Hills Blvd	0.32	None Required

Source: *Annual Accident Location Study 2011*, County of El Dorado Department of Transportation, May 18, 2012.  
<sup>+</sup> # Accidents per Million Vehicles (MV) for single sites (intersections/curves), # Accidents per Million Vehicle Miles (MVM) for roadway sections.

**Bicycle and Pedestrian Facilities Evaluation**

According to Chapter 5 of the *El Dorado County Bicycle Transportation Plan*, Class II Bike Lanes are proposed for Green Valley Road, Francisco Drive, and El Dorado Hills Boulevard in the vicinity of the project site. In addition, Class III Bike Routes are proposed for Francisco Drive and Salmon Falls Road/Lakehills Drive north of Green Valley Road. A Class I Bike Path is also proposed for El Dorado Hills Boulevard, south of Francisco Drive.

While the project will not result in removal of a bikeway/bike lane or prohibition of implementation of the facilities identified in the *Plan*, 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 Class II Bike Lanes along Green Valley Road and Francisco Drive. Through these connections to the proposed bike lane network, the project will provide continuity with adjacent projects, schools, parks, and other public facilities.

**CONCLUSIONS**

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

- The proposed project is estimated to generate 172 total new daily trips, with 9 new trips occurring during the AM peak-hour, and 14 new trips occurring during the PM peak-hour.
- The County’s current Travel Demand Model (TDM) incorporates non-residential growth for the subject parcel within the project’s Traffic Analysis Zone (TAZ #614). Because the project (20 employees, 64 beds) is less intensive than what is currently included in the County’s TDM (a total of 48 non-retail employees), new Cumulative (2035) analyses are not required to be completed as part of this study.
- As defined by the County, the addition of the proposed project to the Existing (2015) and Near-Term (2025) scenarios does not worsen conditions at the study intersections. As a result, the project’s potential environmental impacts to transportation facilities are considered to be **less than significant**.

**Appendix A:**

*Traffic Count Data Sheets*



# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-001 Francisco Drive-Embarcadero Drive-Cambria '  
 Date : 3/24/2015

## Unshifted Count = All Vehicles

START TIME	Francisco Drive Southbound					Embarcadero Drive Westbound					Francisco Drive Northbound					Cambria Way Eastbound					Total	Utturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
06:00	0	40	0	0	40	2	0	2	0	4	0	41	0	0	41	1	0	0	0	1	86	0
06:15	2	55	0	1	58	2	0	4	0	6	0	39	0	0	39	1	0	1	0	2	105	1
06:30	1	47	2	0	50	0	0	7	0	7	0	52	0	0	52	0	0	0	0	0	109	0
06:45	1	110	1	0	112	0	0	5	0	5	0	56	0	0	56	2	0	0	0	2	175	0
<b>Total</b>	<b>4</b>	<b>252</b>	<b>3</b>	<b>1</b>	<b>260</b>	<b>4</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>188</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>475</b>	<b>1</b>
07:00	3	130	4	0	137	0	0	9	0	9	0	94	1	0	95	2	0	0	0	2	243	0
07:15	3	102	2	0	107	0	0	14	0	14	2	114	1	0	117	4	0	1	0	5	243	0
07:30	9	154	4	0	167	0	0	15	0	15	1	101	4	0	106	8	0	0	0	8	296	0
07:45	13	111	1	0	125	0	0	7	0	7	0	85	5	0	90	2	0	0	0	2	224	0
<b>Total</b>	<b>28</b>	<b>497</b>	<b>11</b>	<b>0</b>	<b>536</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>45</b>	<b>3</b>	<b>394</b>	<b>11</b>	<b>0</b>	<b>408</b>	<b>16</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>1006</b>	<b>0</b>
08:00	7	144	1	0	152	0	0	14	0	14	0	92	1	0	93	2	0	0	0	2	261	0
08:15	8	131	4	0	143	0	0	12	0	12	0	102	4	0	106	5	0	0	0	5	266	0
08:30	9	109	2	0	120	1	1	15	0	17	0	93	6	0	99	2	1	0	0	3	239	0
08:45	6	105	2	0	113	3	0	14	0	17	1	96	6	0	103	2	1	0	0	3	236	0
<b>Total</b>	<b>30</b>	<b>489</b>	<b>9</b>	<b>0</b>	<b>528</b>	<b>4</b>	<b>1</b>	<b>55</b>	<b>0</b>	<b>60</b>	<b>1</b>	<b>383</b>	<b>17</b>	<b>0</b>	<b>401</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>1002</b>	<b>0</b>
15:00	15	140	3	1	159	4	0	15	0	19	0	119	5	0	124	4	1	1	0	6	308	1
15:15	10	108	6	0	124	3	0	21	0	24	3	130	6	0	139	3	0	2	0	5	292	0
15:30	8	111	2	1	122	7	0	19	0	26	1	118	6	0	125	0	0	2	0	2	275	1
15:45	17	126	1	0	144	5	0	22	0	27	0	114	7	0	121	3	1	0	0	4	296	0
<b>Total</b>	<b>50</b>	<b>485</b>	<b>12</b>	<b>2</b>	<b>549</b>	<b>19</b>	<b>0</b>	<b>77</b>	<b>0</b>	<b>96</b>	<b>4</b>	<b>481</b>	<b>24</b>	<b>0</b>	<b>509</b>	<b>10</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>17</b>	<b>1171</b>	<b>2</b>
16:00	13	128	5	0	146	6	0	19	0	25	1	116	3	0	120	4	0	1	0	5	296	0
16:15	11	127	8	0	146	3	1	12	0	16	0	136	6	0	142	6	0	1	0	7	311	0
16:30	9	111	2	0	122	7	0	17	0	24	0	118	5	0	123	3	0	1	0	4	273	0
16:45	12	127	6	1	146	2	0	17	0	19	1	128	4	0	133	0	1	1	0	2	300	1
<b>Total</b>	<b>45</b>	<b>493</b>	<b>21</b>	<b>1</b>	<b>560</b>	<b>18</b>	<b>1</b>	<b>65</b>	<b>0</b>	<b>84</b>	<b>2</b>	<b>498</b>	<b>18</b>	<b>0</b>	<b>518</b>	<b>13</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>18</b>	<b>1180</b>	<b>1</b>
17:00	15	130	3	1	149	8	0	26	0	34	0	123	4	0	127	4	0	3	0	7	317	1
17:15	15	144	5	0	164	8	0	23	0	31	1	130	6	0	137	3	0	0	0	3	335	0
17:30	12	119	2	2	135	2	1	20	0	23	0	120	2	0	122	5	1	1	0	7	287	2
17:45	12	128	5	1	146	1	0	18	0	19	1	120	4	0	125	1	1	0	0	2	292	1
<b>Total</b>	<b>54</b>	<b>521</b>	<b>15</b>	<b>4</b>	<b>594</b>	<b>19</b>	<b>1</b>	<b>87</b>	<b>0</b>	<b>107</b>	<b>2</b>	<b>493</b>	<b>16</b>	<b>0</b>	<b>511</b>	<b>13</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>19</b>	<b>1231</b>	<b>4</b>
<b>Grand Total</b>	<b>211</b>	<b>2737</b>	<b>71</b>	<b>8</b>	<b>3027</b>	<b>64</b>	<b>3</b>	<b>347</b>	<b>0</b>	<b>414</b>	<b>12</b>	<b>2437</b>	<b>86</b>	<b>0</b>	<b>2535</b>	<b>67</b>	<b>7</b>	<b>15</b>	<b>0</b>	<b>89</b>	<b>6065</b>	<b>8</b>
Apprch %	7.0%	90.4%	2.3%	0.3%		15.5%	0.7%	83.8%	0.0%		0.5%	96.1%	3.4%	0.0%		75.3%	7.9%	16.9%	0.0%			
Total %	3.5%	45.1%	1.2%	0.1%	49.9%	1.1%	0.0%	5.7%	0.0%	6.8%	0.2%	40.2%	1.4%	0.0%	41.8%	1.1%	0.1%	0.2%	0.0%	1.5%	100.0%	

# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-001 Francisco Drive-Embarcadero Drive-Cambria '  
 Date : 3/24/2015

## Unshifted Count = All Vehicles

AM PEAK HOUR	Francisco Drive Southbound					Embarcadero Drive Westbound					Francisco Drive Northbound					Cambria Way Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	9	154	4	0	167	0	0	15	0	15	1	101	4	0	106	8	0	0	0	8	296
07:45	13	111	1	0	125	0	0	7	0	7	0	85	5	0	90	2	0	0	0	2	224
08:00	7	144	1	0	152	0	0	14	0	14	0	92	1	0	93	2	0	0	0	2	261
08:15	8	131	4	0	143	0	0	12	0	12	0	102	4	0	106	5	0	0	0	5	266
Total Volume	37	540	10	0	587	0	0	48	0	48	1	380	14	0	395	17	0	0	0	17	1047
% App Total	6.3%	92.0%	1.7%	0.0%		0.0%	0.0%	100.0%	0.0%		0.3%	96.2%	3.5%	0.0%		100.0%	0.0%	0.0%	0.0%		
PHF	.712	.877	.625	.000	.879	.000	.000	.800	.000	.800	.250	.931	.700	.000	.932	.531	.000	.000	.000	.531	.884

PM PEAK HOUR	Francisco Drive Southbound					Embarcadero Drive Westbound					Francisco Drive Northbound					Cambria Way Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	12	127	6	1	146	2	0	17	0	19	1	128	4	0	133	0	1	1	0	2	300
17:00	15	130	3	1	149	8	0	26	0	34	0	123	4	0	127	4	0	3	0	7	317
17:15	15	144	5	0	164	8	0	23	0	31	1	130	6	0	137	3	0	0	0	3	335
17:30	12	119	2	2	135	2	1	20	0	23	0	120	2	0	122	5	1	1	0	7	287
Total Volume	54	520	16	4	594	20	1	86	0	107	2	501	16	0	519	12	2	5	0	19	1239
% App Total	9.1%	87.5%	2.7%	0.7%		18.7%	0.9%	80.4%	0.0%		0.4%	96.5%	3.1%	0.0%		63.2%	10.5%	26.3%	0.0%		
PHF	.900	.903	.667	.500	.905	.625	.250	.827	.000	.787	.500	.963	.667	.000	.947	.600	.500	.417	.000	.679	.925

# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-002 El Dorado Hills Boulevard-Francisco Drive.ppc  
 Date : 3/24/2015

## Unshifted Count = All Vehicles

START TIME	El Dorado Hills Boulevard Southbound					Francisco Drive Westbound					El Dorado Hills Boulevard Northbound					Francisco Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
06:00	1	23	0	0	24	2	3	0	0	5	36	6	0	0	42	0	1	43	0	44	115	0
06:15	0	51	0	0	51	5	5	0	0	10	41	5	0	0	46	0	1	58	0	59	166	0
06:30	1	46	0	0	47	0	3	1	0	4	43	4	1	0	48	0	2	42	0	44	143	0
06:45	2	62	0	0	64	5	7	1	0	13	56	14	4	0	74	0	2	103	0	105	256	0
<b>Total</b>	<b>4</b>	<b>182</b>	<b>0</b>	<b>0</b>	<b>186</b>	<b>12</b>	<b>18</b>	<b>2</b>	<b>0</b>	<b>32</b>	<b>176</b>	<b>29</b>	<b>5</b>	<b>0</b>	<b>210</b>	<b>0</b>	<b>6</b>	<b>246</b>	<b>0</b>	<b>252</b>	<b>680</b>	<b>0</b>
07:00	5	89	0	0	94	13	7	4	0	24	85	20	2	0	107	0	0	132	0	132	357	0
07:15	5	79	0	0	84	10	18	2	0	30	97	43	2	0	142	0	5	97	0	102	358	0
07:30	22	76	1	0	99	10	12	2	0	24	95	20	3	0	118	0	6	144	0	150	391	0
07:45	19	81	0	0	100	9	13	6	0	28	75	26	3	0	104	0	9	106	0	115	347	0
<b>Total</b>	<b>51</b>	<b>325</b>	<b>1</b>	<b>0</b>	<b>377</b>	<b>42</b>	<b>50</b>	<b>14</b>	<b>0</b>	<b>106</b>	<b>352</b>	<b>109</b>	<b>10</b>	<b>0</b>	<b>471</b>	<b>0</b>	<b>20</b>	<b>479</b>	<b>0</b>	<b>499</b>	<b>1453</b>	<b>0</b>
08:00	12	68	0	0	80	5	11	6	0	22	83	21	8	0	112	1	5	123	0	129	343	0
08:15	23	69	0	0	92	16	10	11	0	37	99	39	10	0	148	1	4	139	0	144	421	0
08:30	65	52	1	0	118	20	18	24	0	62	78	35	23	0	136	0	12	95	0	107	423	0
08:45	8	47	2	0	57	30	24	22	0	76	79	30	9	0	118	0	5	104	0	109	360	0
<b>Total</b>	<b>108</b>	<b>236</b>	<b>3</b>	<b>0</b>	<b>347</b>	<b>71</b>	<b>63</b>	<b>63</b>	<b>0</b>	<b>197</b>	<b>339</b>	<b>125</b>	<b>50</b>	<b>0</b>	<b>514</b>	<b>2</b>	<b>26</b>	<b>461</b>	<b>0</b>	<b>489</b>	<b>1547</b>	<b>0</b>
15:00	20	38	1	0	59	14	25	32	0	71	101	87	7	0	195	0	11	120	0	131	456	0
15:15	11	32	2	0	45	9	13	14	0	36	124	71	6	0	201	2	11	114	0	127	409	0
15:30	2	38	1	0	41	2	13	4	0	19	112	51	4	0	167	0	7	120	0	127	354	0
15:45	5	37	1	0	43	9	8	3	0	20	117	64	5	0	186	0	12	116	0	128	377	0
<b>Total</b>	<b>38</b>	<b>145</b>	<b>5</b>	<b>0</b>	<b>188</b>	<b>34</b>	<b>59</b>	<b>53</b>	<b>0</b>	<b>146</b>	<b>454</b>	<b>273</b>	<b>22</b>	<b>0</b>	<b>749</b>	<b>2</b>	<b>41</b>	<b>470</b>	<b>0</b>	<b>513</b>	<b>1596</b>	<b>0</b>
16:00	1	31	1	0	33	0	9	11	0	20	108	72	9	0	189	3	10	123	0	136	378	0
16:15	4	41	0	0	45	6	15	5	0	26	124	68	9	0	201	2	8	113	0	123	395	0
16:30	9	41	1	0	51	7	10	7	0	24	113	65	4	0	182	1	16	109	0	126	383	0
16:45	4	44	1	0	49	5	6	3	0	14	123	59	7	0	189	0	14	116	0	130	382	0
<b>Total</b>	<b>18</b>	<b>157</b>	<b>3</b>	<b>0</b>	<b>178</b>	<b>18</b>	<b>40</b>	<b>26</b>	<b>0</b>	<b>84</b>	<b>468</b>	<b>264</b>	<b>29</b>	<b>0</b>	<b>761</b>	<b>6</b>	<b>48</b>	<b>461</b>	<b>0</b>	<b>515</b>	<b>1538</b>	<b>0</b>
17:00	4	33	0	0	37	10	14	12	0	36	114	74	16	0	204	1	8	128	0	137	414	0
17:15	10	36	1	0	47	5	7	13	0	25	126	59	10	0	195	0	10	141	0	151	418	0
17:30	5	46	0	0	51	7	15	6	0	28	115	56	5	0	176	3	12	107	0	122	377	0
17:45	1	30	0	0	31	2	5	5	0	12	117	70	3	0	190	0	14	104	0	118	351	0
<b>Total</b>	<b>20</b>	<b>145</b>	<b>1</b>	<b>0</b>	<b>166</b>	<b>24</b>	<b>41</b>	<b>36</b>	<b>0</b>	<b>101</b>	<b>472</b>	<b>259</b>	<b>34</b>	<b>0</b>	<b>765</b>	<b>4</b>	<b>44</b>	<b>480</b>	<b>0</b>	<b>528</b>	<b>1560</b>	<b>0</b>
<b>Grand Total</b>	<b>239</b>	<b>1190</b>	<b>13</b>	<b>0</b>	<b>1442</b>	<b>201</b>	<b>271</b>	<b>194</b>	<b>0</b>	<b>666</b>	<b>2261</b>	<b>1059</b>	<b>150</b>	<b>0</b>	<b>3470</b>	<b>14</b>	<b>185</b>	<b>2597</b>	<b>0</b>	<b>2796</b>	<b>8374</b>	<b>0</b>
Apprch %	16.6%	82.5%	0.9%	0.0%		30.2%	40.7%	29.1%	0.0%		65.2%	30.5%	4.3%	0.0%		0.5%	6.6%	92.9%	0.0%			
Total %	2.9%	14.2%	0.2%	0.0%	17.2%	2.4%	3.2%	2.3%	0.0%	8.0%	27.0%	12.6%	1.8%	0.0%	41.4%	0.2%	2.2%	31.0%	0.0%	33.4%	100.0%	

# ALL TRAFFIC DATA

El Dorado County  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7246-002 El Dorado Hills Boulevard-Francisco Drive.ppc  
 Date : 3/24/2015

## Unshifted Count = All Vehicles

AM PEAK HOUR	El Dorado Hills Boulevard Southbound					Francisco Drive Westbound					El Dorado Hills Boulevard Northbound					Francisco Drive Eastbound					Total
	START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	12	68	0	0	80	5	11	6	0	22	83	21	8	0	112	1	5	123	0	129	343
08:15	23	69	0	0	92	16	10	11	0	37	99	39	10	0	148	1	4	139	0	144	421
08:30	65	52	1	0	118	20	18	24	0	62	78	35	23	0	136	0	12	95	0	107	423
08:45	8	47	2	0	57	30	24	22	0	76	79	30	9	0	118	0	5	104	0	109	360
Total Volume	108	236	3	0	347	71	63	63	0	197	339	125	50	0	514	2	26	461	0	489	1547
% App Total	31.1%	68.0%	0.9%	0.0%		36.0%	32.0%	32.0%	0.0%		66.0%	24.3%	9.7%	0.0%		0.4%	5.3%	94.3%	0.0%		
PHF	.415	.855	.375	.000	.735	.592	.656	.656	.000	.648	.856	.801	.543	.000	.868	.500	.542	.829	.000	.849	.914

PM PEAK HOUR	El Dorado Hills Boulevard Southbound					Francisco Drive Westbound					El Dorado Hills Boulevard Northbound					Francisco Drive Eastbound					Total
	START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	9	41	1	0	51	7	10	7	0	24	113	65	4	0	182	1	16	109	0	126	383
16:45	4	44	1	0	49	5	6	3	0	14	123	59	7	0	189	0	14	116	0	130	382
17:00	4	33	0	0	37	10	14	12	0	36	114	74	16	0	204	1	8	128	0	137	414
17:15	10	36	1	0	47	5	7	13	0	25	126	59	10	0	195	0	10	141	0	151	418
Total Volume	27	154	3	0	184	27	37	35	0	99	476	257	37	0	770	2	48	494	0	544	1597
% App Total	14.7%	83.7%	1.6%	0.0%		27.3%	37.4%	35.4%	0.0%		61.8%	33.4%	4.8%	0.0%		0.4%	8.8%	90.8%	0.0%		
PHF	.675	.875	.750	.000	.902	.675	.661	.673	.000	.688	.944	.868	.578	.000	.944	.500	.750	.876	.000	.901	.955

**Appendix B:**

*Analysis Worksheets for  
Existing (2015) Conditions*

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
AM Peak

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	161	216	230	15	45	813	106	306	180	6	122
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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		1810	1776	1845		1900	1881	1863	1845	1863	1900	1845
Adj Flow Rate, veh/h		199	267	284		52	934	122	364	214	7	158
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		0.81	0.81	0.81		0.87	0.87	0.87	0.84	0.84	0.84	0.77
Percent Heavy Veh, %		5	7	3		0	1	2	3	2	2	3
Cap, veh/h		191	1096	510		67	1090	483	438	1125	37	192
Arrive On Green		0.06	0.32	0.32		0.04	0.30	0.30	0.13	0.32	0.32	0.11
Sat Flow, veh/h		3344	3374	1568		1810	3574	1583	3408	3498	114	1757
Grp Volume(v), veh/h		199	267	284		52	934	122	364	108	113	158
Grp Sat Flow(s),veh/h/ln		1672	1687	1568		1810	1787	1583	1704	1770	1843	1757
Q Serve(g_s), s		5.0	5.1	13.1		2.5	21.6	5.1	9.1	3.9	3.9	7.7
Cycle Q Clear(g_c), s		5.0	5.1	13.1		2.5	21.6	5.1	9.1	3.9	3.9	7.7
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.06	1.00
Lane Grp Cap(c), veh/h		191	1096	510		67	1090	483	438	569	593	192
V/C Ratio(X)		1.04	0.24	0.56		0.78	0.86	0.25	0.83	0.19	0.19	0.82
Avail Cap(c_a), veh/h		191	1096	510		103	1153	511	466	569	593	220
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.4	21.7	24.4		41.9	28.7	23.0	37.3	21.5	21.5	38.3
Incr Delay (d2), s/veh		77.2	0.1	1.4		18.0	6.3	0.3	11.5	0.2	0.2	19.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		4.3	2.4	5.8		1.6	11.6	2.3	5.0	1.9	2.0	4.8
LnGrp Delay(d),s/veh		118.6	21.8	25.8		59.8	35.0	23.2	48.8	21.7	21.7	57.9
LnGrp LOS		F	C	C		E	D	C	D	C	C	E
Approach Vol, veh/h			750				1108			585		
Approach Delay, s/veh			49.0				34.9			38.6		
Approach LOS			D				C			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	34.2	15.3	31.0	9.0	32.4	13.6	32.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.5	15.1	11.1	28.0	7.0	23.6	9.7	5.9				
Green Ext Time (p_c), s	0.0	7.1	0.1	0.0	0.0	3.2	0.1	5.9				

Intersection Summary		
HCM 2010 Ctrl Delay		43.7
HCM 2010 LOS		D

Notes

User approved ignoring U-Turning movement.

	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↗
Volume (veh/h)	312	367
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881
Adj Flow Rate, veh/h	405	477
Adj No. of Lanes	1	1
Peak Hour Factor	0.77	0.77
Percent Heavy Veh, %	1	1
Cap, veh/h	568	483
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1881	1599
Grp Volume(v), veh/h	405	477
Grp Sat Flow(s),veh/h/ln	1881	1599
Q Serve(g_s), s	16.8	26.0
Cycle Q Clear(g_c), s	16.8	26.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	568	483
V/C Ratio(X)	0.71	0.99
Avail Cap(c_a), veh/h	568	483
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	27.2	30.4
Incr Delay (d2), s/veh	4.2	37.5
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	16.5
LnGrp Delay(d),s/veh	31.4	68.0
LnGrp LOS	C	E
Approach Vol, veh/h	1040	
Approach Delay, s/veh	52.2	
Approach LOS	D	
Timer		

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing  
 AM Peak

**Intersection**

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	19	0	0	0	0	53	1	420	14	37	540	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	80	80	80	93	93	93	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	0	0	0	0	66	1	452	15	42	614	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1192	1167	614	1159	1159	459	614	0	0	467	0	0
Stage 1	698	698	-	461	461	-	-	-	-	-	-	-
Stage 2	494	469	-	698	698	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	164	194	492	173	196	602	965	-	-	1094	-	-
Stage 1	431	442	-	581	565	-	-	-	-	-	-	-
Stage 2	557	561	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	142	186	492	168	188	602	965	-	-	1094	-	-
Mov Cap-2 Maneuver	142	186	-	168	188	-	-	-	-	-	-	-
Stage 1	431	425	-	580	564	-	-	-	-	-	-	-
Stage 2	495	560	-	414	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.2	11.7	0	0.5
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	965	-	-	142	602	1094	-	-
HCM Lane V/C Ratio	0.001	-	-	0.191	0.11	0.038	-	-
HCM Control Delay (s)	8.7	-	-	36.2	11.7	8.4	-	-
HCM Lane LOS	A	-	-	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.4	0.1	-	-



Intersection												
Intersection Delay, s/veh	54											
Intersection LOS	F											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	29	509	0	71	67	63	0	364	125	50
Peak Hour Factor	0.85	0.85	0.85	0.85	0.70	0.70	0.70	0.70	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	34	599	0	101	96	90	0	418	144	57
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	71.7	33.4	58.8
HCM LOS	F	D	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	35%	100%	0%
Vol Thru, %	0%	71%	5%	33%	0%	98%
Vol Right, %	0%	29%	94%	31%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	364	175	540	201	108	240
LT Vol	364	0	2	71	108	0
Through Vol	0	125	29	67	0	236
RT Vol	0	50	509	63	0	4
Lane Flow Rate	418	201	635	287	148	329
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.491	1	0.729	0.398	0.838
Departure Headway (Hd)	9.488	8.788	8.13	9.248	9.686	9.174
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	385	412	451	393	374	398
Service Time	7.201	6.501	6.145	7.248	7.386	6.875
HCM Lane V/C Ratio	1.086	0.488	1.408	0.73	0.396	0.827
HCM Control Delay	77.6	19.7	71.7	33.4	18.6	44.6
HCM Lane LOS	F	C	F	D	C	E
HCM 95th-tile Q	11.9	2.6	12.9	5.6	1.9	7.8

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	108	236	4
Peak Hour Factor	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	148	323	5
Number of Lanes	0	1	1	0












**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	36.5
HCM LOS	E

**Lane**

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
AM Peak

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	200	267	284	69	934	122	364	221	158	405	477
v/c Ratio	1.22	0.24	0.40	0.61	0.85	0.21	0.78	0.21	0.73	0.78	0.88
Control Delay	180.8	22.7	4.9	65.5	36.5	5.6	49.4	23.2	58.5	40.1	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	180.8	22.7	4.9	65.5	36.5	5.6	49.4	23.2	58.5	40.1	40.0
Queue Length 50th (ft)	~76	58	0	39	257	0	105	47	88	206	184
Queue Length 95th (ft)	#125	80	36	#98	318	34	#151	70	#139	252	235
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	164	1142	718	113	1207	615	487	1158	230	594	600
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.23	0.40	0.61	0.77	0.20	0.75	0.19	0.69	0.68	0.80

Intersection Summary

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

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
PM Peak

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	445	805	319	69	73	503	93	319	260	24	113	202
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1881	1881		1900	1881	1863	1881	1881	1900	1881	1863
Adj Flow Rate, veh/h	468	847	336		83	572	106	347	283	26	131	235
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95		0.88	0.88	0.88	0.92	0.92	0.92	0.86	0.86
Percent Heavy Veh, %	0	1	1		0	1	2	1	1	1	1	2
Cap, veh/h	516	1296	580		107	982	435	445	804	73	165	385
Arrive On Green	0.15	0.36	0.36		0.06	0.27	0.27	0.13	0.24	0.24	0.09	0.21
Sat Flow, veh/h	3510	3574	1599		1810	3574	1583	3476	3313	302	1792	1863
Grp Volume(v), veh/h	468	847	336		83	572	106	347	152	157	131	235
Grp Sat Flow(s),veh/h/ln	1755	1787	1599		1810	1787	1583	1738	1787	1828	1792	1863
Q Serve(g_s), s	9.8	14.8	12.7		3.4	10.3	3.9	7.2	5.3	5.3	5.4	8.6
Cycle Q Clear(g_c), s	9.8	14.8	12.7		3.4	10.3	3.9	7.2	5.3	5.3	5.4	8.6
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.17	1.00	
Lane Grp Cap(c), veh/h	516	1296	580		107	982	435	445	434	444	165	385
V/C Ratio(X)	0.91	0.65	0.58		0.78	0.58	0.24	0.78	0.35	0.35	0.79	0.61
Avail Cap(c_a), veh/h	516	1520	680		121	1233	546	558	645	660	192	573
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	19.9	19.2		34.7	23.4	21.1	31.6	23.4	23.5	33.3	26.9
Incr Delay (d2), s/veh	19.6	0.8	0.9		23.9	0.6	0.3	5.5	0.5	0.5	17.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	7.4	5.7		2.4	5.2	1.7	3.8	2.6	2.7	3.5	4.5
LnGrp Delay(d),s/veh	51.0	20.7	20.1		58.6	24.0	21.4	37.1	23.9	23.9	51.0	28.5
LnGrp LOS	D	C	C		E	C	C	D	C	C	D	C
Approach Vol, veh/h		1651				761			656			602
Approach Delay, s/veh		29.2				27.4			30.9			34.2
Approach LOS		C				C			C			C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	32.8	13.6	20.0	15.0	26.2	10.9	22.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	5.4	16.8	9.2	12.4	11.8	12.3	7.4	7.3				
Green Ext Time (p_c), s	0.0	8.8	0.4	3.1	0.0	8.2	0.0	4.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			29.9									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

Movement	SBR
Lane Configurations	7
Volume (veh/h)	203
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	236
Adj No. of Lanes	1
Peak Hour Factor	0.86
Percent Heavy Veh, %	2
Cap, veh/h	327
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	236
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	10.4
Cycle Q Clear(g_c), s	10.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	327
V/C Ratio(X)	0.72
Avail Cap(c_a), veh/h	487
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	27.7
Incr Delay (d2), s/veh	3.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.8
LnGrp Delay(d),s/veh	30.7
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing  
 PM Peak

**Intersection**

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	12	2	5	20	1	86	2	501	16	4	54	520	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	70	70	70	79	79	79	95	95	95	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	3	7	25	1	109	2	527	17	4	59	571	18

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1285	1247	571	1235	1239	540	571	0	0	653	544	0	0
Stage 1	690	699	-	540	540	-	-	-	-	-	-	-	-
Stage 2	595	548	-	695	699	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	142	173	520	153	175	542	1002	-	-	-	1025	-	-
Stage 1	435	442	-	526	521	-	-	-	-	-	-	-	-
Stage 2	491	517	-	433	442	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	113	173	520	149	175	542	1002	-	-	~ -15	~ -15	-	-
Mov Cap-2 Maneuver	113	173	-	149	175	-	-	-	-	-	-	-	-
Stage 1	434	442	-	525	520	-	-	-	-	-	-	-	-
Stage 2	391	516	-	424	442	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.5	21	0	
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1002	-	-	149	358	+	-	-
HCM Lane V/C Ratio	0.002	-	-	0.182	0.378	-	-	-
HCM Control Delay (s)	8.6	-	-	34.5	21	-	-	-
HCM Lane LOS	A	-	-	D	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	1.7	-	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Intersection Delay, s/veh	48.7											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	48	495	0	27	37	35	0	479	257	37
Peak Hour Factor	0.90	0.90	0.90	0.90	0.70	0.70	0.70	0.70	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	53	550	0	39	53	50	0	510	273	39
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	63	14.7	52.2
HCM LOS	F	B	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	27%	100%	0%
Vol Thru, %	0%	87%	9%	37%	0%	98%
Vol Right, %	0%	13%	91%	35%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	479	294	545	99	27	157
LT Vol	479	0	2	27	27	0
Through Vol	0	257	48	37	0	154
RT Vol	0	37	495	35	0	3
Lane Flow Rate	510	313	606	141	30	174
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.636	1	0.314	0.074	0.403
Departure Headway (Hd)	7.914	7.326	6.324	7.981	8.836	8.323
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	459	491	575	451	406	433
Service Time	5.669	5.081	4.385	6.029	6.575	6.062
HCM Lane V/C Ratio	1.111	0.637	1.054	0.313	0.074	0.402
HCM Control Delay	70.6	22.1	63	14.7	12.3	16.6
HCM Lane LOS	F	C	F	B	B	C
HCM 95th-tile Q	13	4.4	14.5	1.3	0.2	1.9

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	154	3
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	30	171	3
Number of Lanes	0	1	1	0

**Approach**












Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	16
HCM LOS	C

**Lane**



El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
PM Peak
























											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	468	847	336	161	572	106	347	309	131	235	236
v/c Ratio	0.91	0.71	0.44	1.61	0.63	0.20	0.67	0.35	0.68	0.62	0.46
Control Delay	58.3	26.1	4.5	348.1	28.8	2.0	40.1	24.3	56.8	36.3	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	26.1	4.5	348.1	28.8	2.0	40.1	24.3	56.8	36.3	7.2
Queue Length 50th (ft)	117	183	0	~115	127	0	81	61	62	104	0
Queue Length 95th (ft)	#252	278	55	#259	192	9	#157	102	#162	176	48
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	517	1526	875	100	1238	655	558	1286	192	575	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.56	0.38	1.61	0.46	0.16	0.62	0.24	0.68	0.41	0.36

Intersection Summary

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





El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing  
AM Peak

													
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	
Lane Configurations													
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%				0%			0%			
Storage Length (ft)		290		210		200		450	200		0	185	
Storage Lanes		2		0		1		1	2		0	1	
Taper Length (ft)		25				25			25			25	
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	
Ped Bike Factor													
Frt				0.850				0.850		0.995			
Flt Protected		0.950				0.950			0.950			0.950	
Satd. Flow (prot)	0	3336	3374	1568	0	1805	3574	1583	3400	3522	0	1752	
Flt Permitted		0.784							0.950			0.950	
Satd. Flow (perm)	0	2753	3374	1568	0	1900	3574	1583	3400	3522	0	1752	
Right Turn on Red				Yes				Yes			Yes		
Satd. Flow (RTOR)				284				122		4			
Link Speed (mph)			50				50			30			
Link Distance (ft)			437				631			452			
Travel Time (s)			6.0				8.6			10.3			

Intersection Summary




















Area Type: Other

		
Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1881	1599
Flt Permitted		
Satd. Flow (perm)	1881	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		139
Link Speed (mph)	30	
Link Distance (ft)	543	
Travel Time (s)	12.3	

Intersection Summary

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing  
 AM Peak

















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.865			0.995				0.850
Flt Protected		0.950					0.950			0.950		
Satd. Flow (prot)	0	1770	0	0	1611	0	1770	1853	0	1770	1863	1583
Flt Permitted		0.950					0.950			0.950		
Satd. Flow (perm)	0	1770	0	0	1611	0	1770	1853	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			452			452	
Travel Time (s)		6.0			16.4			10.3			10.3	

Intersection Summary

Area Type: Other

El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Existing  
 AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.873			0.958			0.957			0.998	
Flt Protected					0.983		0.950			0.950		
Satd. Flow (prot)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Flt Permitted					0.983		0.950			0.950		
Satd. Flow (perm)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		2100			982			1162			698	
Travel Time (s)		47.7			22.3			17.6			10.6	

Intersection Summary

Area Type: Other

**Appendix C:**

*Analysis Worksheets for  
Existing (2015) plus Proposed Project Conditions*

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	161	217	230	15	47	813	106	307	180	6	122
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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		1810	1776	1845		1900	1881	1863	1845	1863	1900	1845
Adj Flow Rate, veh/h		199	268	284		54	934	122	365	214	7	158
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		0.81	0.81	0.81		0.87	0.87	0.87	0.84	0.84	0.84	0.77
Percent Heavy Veh, %		5	7	3		0	1	2	3	2	2	3
Cap, veh/h		190	1092	508		69	1091	483	439	1125	37	192
Arrive On Green		0.06	0.32	0.32		0.04	0.31	0.31	0.13	0.32	0.32	0.11
Sat Flow, veh/h		3344	3374	1568		1810	3574	1583	3408	3498	114	1757
Grp Volume(v), veh/h		199	268	284		54	934	122	365	108	113	158
Grp Sat Flow(s),veh/h/ln		1672	1687	1568		1810	1787	1583	1704	1770	1843	1757
Q Serve(g_s), s		5.0	5.1	13.1		2.6	21.6	5.1	9.2	3.9	3.9	7.7
Cycle Q Clear(g_c), s		5.0	5.1	13.1		2.6	21.6	5.1	9.2	3.9	3.9	7.7
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.06	1.00
Lane Grp Cap(c), veh/h		190	1092	508		69	1091	483	439	569	592	192
V/C Ratio(X)		1.04	0.25	0.56		0.78	0.86	0.25	0.83	0.19	0.19	0.82
Avail Cap(c_a), veh/h		190	1092	508		103	1152	510	466	569	592	220
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.4	21.8	24.5		41.8	28.7	23.0	37.3	21.5	21.5	38.3
Incr Delay (d2), s/veh		77.5	0.1	1.4		19.3	6.3	0.3	11.6	0.2	0.2	19.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		4.3	2.4	5.8		1.7	11.6	2.3	5.0	1.9	2.0	4.8
LnGrp Delay(d),s/veh		118.9	21.9	25.9		61.2	35.0	23.2	48.9	21.7	21.7	58.0
LnGrp LOS		F	C	C		E	C	C	D	C	C	E
Approach Vol, veh/h			751				1110			586		
Approach Delay, s/veh			49.1				35.0			38.7		
Approach LOS			D				C			D		
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	34.1	15.3	31.0	9.0	32.5	13.6	32.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.6	15.1	11.2	28.1	7.0	23.6	9.7	5.9				
Green Ext Time (p_c), s	0.0	7.1	0.1	0.0	0.0	3.2	0.1	5.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.8									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↑
Volume (veh/h)	312	367
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881
Adj Flow Rate, veh/h	405	477
Adj No. of Lanes	1	1
Peak Hour Factor	0.77	0.77
Percent Heavy Veh, %	1	1
Cap, veh/h	568	483
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1881	1599
Grp Volume(v), veh/h	405	477
Grp Sat Flow(s),veh/h/ln	1881	1599
Q Serve(g_s), s	16.8	26.1
Cycle Q Clear(g_c), s	16.8	26.1
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	568	483
V/C Ratio(X)	0.71	0.99
Avail Cap(c_a), veh/h	568	483
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	27.3	30.5
Incr Delay (d2), s/veh	4.2	37.8
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	16.5
LnGrp Delay(d),s/veh	31.5	68.3
LnGrp LOS	C	E
Approach Vol, veh/h	1040	
Approach Delay, s/veh	52.4	
Approach LOS	D	
Timer		

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	0	1	0	0	53	3	420	14	37	540	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	80	80	80	93	93	93	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	0	1	0	0	66	3	452	15	42	614	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1197	1171	614	1164	1164	459	614	0	0	467	0	0
Stage 1	698	698	-	466	466	-	-	-	-	-	-	-
Stage 2	499	473	-	698	698	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	163	193	492	171	194	602	965	-	-	1094	-	-
Stage 1	431	442	-	577	562	-	-	-	-	-	-	-
Stage 2	554	558	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	140	185	492	165	186	602	965	-	-	1094	-	-
Mov Cap-2 Maneuver	140	185	-	165	186	-	-	-	-	-	-	-
Stage 1	430	425	-	575	560	-	-	-	-	-	-	-
Stage 2	491	556	-	413	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.2	11.7	0.1	0.5
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	965	-	-	145	602	1094	-	-
HCM Lane V/C Ratio	0.003	-	-	0.207	0.11	0.038	-	-
HCM Control Delay (s)	8.7	-	-	36.2	11.7	8.4	-	-
HCM Lane LOS	A	-	-	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.4	0.1	-	-



Intersection												
Intersection Delay, s/veh	53.8											
Intersection LOS	F											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	29	510	0	71	67	63	0	366	125	50
Peak Hour Factor	0.85	0.85	0.85	0.85	0.70	0.70	0.70	0.70	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	34	600	0	101	96	90	0	421	144	57
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	71.6	33.4	58.8
HCM LOS	F	D	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	35%	100%	0%
Vol Thru, %	0%	71%	5%	33%	0%	98%
Vol Right, %	0%	29%	94%	31%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	366	175	541	201	108	240
LT Vol	366	0	2	71	108	0
Through Vol	0	125	29	67	0	236
RT Vol	0	50	510	63	0	4
Lane Flow Rate	421	201	636	287	148	329
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.491	1	0.729	0.398	0.829
Departure Headway (Hd)	9.489	8.789	8.131	9.145	9.686	9.175
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	387	412	452	393	374	398
Service Time	7.191	6.491	6.133	7.234	7.386	6.875
HCM Lane V/C Ratio	1.088	0.488	1.407	0.73	0.396	0.827
HCM Control Delay	77.5	19.7	71.6	33.4	18.6	43.4
HCM Lane LOS	F	C	F	D	C	E
HCM 95th-tile Q	11.9	2.6	12.9	5.7	1.9	7.6

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	108	236	4
Peak Hour Factor	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	148	323	5
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	35.7
HCM LOS	E

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	608	2	0	1488	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	661	2	0	1617	0	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	661
Stage 1	-	-	661
Stage 2	-	-	809
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	923
Stage 1	-	-	475
Stage 2	-	-	398
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	923
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	475
Stage 2	-	-	398

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	666	-	-	923	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**












Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	19	11	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	12	4	2	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	16	0	35
Stage 1	-	-	14
Stage 2	-	-	21
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	1602	-	978
Stage 1	-	-	1009
Stage 2	-	-	1002
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1602	-	978
Mov Cap-2 Maneuver	-	-	978
Stage 1	-	-	1009
Stage 2	-	-	1002

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1602	-	-	-	978
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	200	268	284	71	934	122	365	221	158	405	477
v/c Ratio	1.22	0.26	0.42	0.81	0.85	0.21	0.78	0.21	0.73	0.78	0.88
Control Delay	180.8	23.3	5.1	98.3	36.5	5.6	49.5	23.2	58.5	40.1	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	180.8	23.3	5.1	98.3	36.5	5.6	49.5	23.2	58.5	40.1	40.0
Queue Length 50th (ft)	~76	59	0	41	257	0	105	47	88	206	184
Queue Length 95th (ft)	#125	80	36	#115	318	34	#152	70	#139	252	235
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	164	1139	717	88	1206	615	486	1158	230	594	600
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.24	0.40	0.81	0.77	0.20	0.75	0.19	0.69	0.68	0.80

**Intersection Summary**

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

El Dorado Hills Memory Care Center  
 1: Francisco Dr. & Green Valley Rd.

Existing plus Project  
 PM Peak

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	445	807	319	69	75	503	93	322	260	24	113	202
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1881	1881		1900	1881	1863	1881	1881	1900	1881	1863
Adj Flow Rate, veh/h	468	849	336		85	572	106	350	283	26	131	235
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95		0.88	0.88	0.88	0.92	0.92	0.92	0.86	0.86
Percent Heavy Veh, %	0	1	1		0	1	2	1	1	1	1	2
Cap, veh/h	516	1290	577		110	982	435	448	806	74	165	385
Arrive On Green	0.15	0.36	0.36		0.06	0.27	0.27	0.13	0.24	0.24	0.09	0.21
Sat Flow, veh/h	3510	3574	1599		1810	3574	1583	3476	3313	302	1792	1863
Grp Volume(v), veh/h	468	849	336		85	572	106	350	152	157	131	235
Grp Sat Flow(s),veh/h/ln	1755	1787	1599		1810	1787	1583	1738	1787	1828	1792	1863
Q Serve(g_s), s	9.8	14.9	12.7		3.5	10.3	3.9	7.3	5.3	5.3	5.4	8.6
Cycle Q Clear(g_c), s	9.8	14.9	12.7		3.5	10.3	3.9	7.3	5.3	5.3	5.4	8.6
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.17	1.00	
Lane Grp Cap(c), veh/h	516	1290	577		110	982	435	448	435	445	165	385
V/C Ratio(X)	0.91	0.66	0.58		0.78	0.58	0.24	0.78	0.35	0.35	0.79	0.61
Avail Cap(c_a), veh/h	516	1518	679		121	1231	545	557	644	659	191	572
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	20.1	19.4		34.7	23.5	21.1	31.6	23.4	23.5	33.3	27.0
Incr Delay (d2), s/veh	19.8	0.8	0.9		24.5	0.6	0.3	5.7	0.5	0.5	17.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	7.5	5.7		2.5	5.2	1.7	3.9	2.6	2.7	3.5	4.5
LnGrp Delay(d),s/veh	51.3	20.9	20.3		59.2	24.0	21.4	37.3	23.9	23.9	51.1	28.5
LnGrp LOS	D	C	C		E	C	C	D	C	C	D	C
Approach Vol, veh/h		1653				763			659			602
Approach Delay, s/veh		29.4				27.6			31.0			34.3
Approach LOS		C				C			C			C
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	32.7	13.7	20.0	15.0	26.3	10.9	22.7				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	5.5	16.9	9.3	12.4	11.8	12.3	7.4	7.3				
Green Ext Time (p_c), s	0.0	8.8	0.4	3.1	0.0	8.2	0.0	4.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			30.1									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

Movement	SBR
Lane Configurations	7
Volume (veh/h)	203
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	236
Adj No. of Lanes	1
Peak Hour Factor	0.86
Percent Heavy Veh, %	2
Cap, veh/h	327
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	236
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	10.4
Cycle Q Clear(g_c), s	10.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	327
V/C Ratio(X)	0.72
Avail Cap(c_a), veh/h	486
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	27.7
Incr Delay (d2), s/veh	3.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.8
LnGrp Delay(d),s/veh	30.7
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	15	2	8	20	1	86	4	501	16	4	54	520	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	70	70	70	79	79	79	95	95	95	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	3	11	25	1	109	4	527	17	4	59	571	20

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1289	1252	571	1241	1243	540	571	0	0	653	544	0	0
Stage 1	690	699	-	544	544	-	-	-	-	-	-	-	-
Stage 2	599	553	-	697	699	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	141	172	520	152	174	542	1002	-	-	-	1025	-	-
Stage 1	435	442	-	523	519	-	-	-	-	-	-	-	-
Stage 2	488	514	-	431	442	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	112	171	520	146	173	542	1002	-	-	~ -15	~ -15	-	-
Mov Cap-2 Maneuver	112	171	-	146	173	-	-	-	-	-	-	-	-
Stage 1	433	442	-	521	517	-	-	-	-	-	-	-	-
Stage 2	387	512	-	419	442	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	35	21.3	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1002	-	-	155	355	+	-	-
HCM Lane V/C Ratio	0.004	-	-	0.23	0.382	-	-	-
HCM Control Delay (s)	8.6	-	-	35	21.3	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.7	-	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection												
Intersection Delay, s/veh	48.8											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	48	498	0	27	37	35	0	481	257	37
Peak Hour Factor	0.90	0.90	0.90	0.90	0.70	0.70	0.70	0.70	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	53	553	0	39	53	50	0	512	273	39
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	63	14.7	52.2
HCM LOS	F	B	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	27%	100%	0%
Vol Thru, %	0%	87%	9%	37%	0%	98%
Vol Right, %	0%	13%	91%	35%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	481	294	548	99	27	157
LT Vol	481	0	2	27	27	0
Through Vol	0	257	48	37	0	154
RT Vol	0	37	498	35	0	3
Lane Flow Rate	512	313	609	141	30	174
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1	0.637	1	0.314	0.074	0.403
Departure Headway (Hd)	7.915	7.328	6.325	7.983	8.836	8.323
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	461	491	572	451	406	433
Service Time	5.669	5.081	4.385	6.029	6.575	6.062
HCM Lane V/C Ratio	1.111	0.637	1.065	0.313	0.074	0.402
HCM Control Delay	70.6	22.1	63	14.7	12.3	16.6
HCM Lane LOS	F	C	F	B	B	C
HCM 95th-tile Q	13	4.4	14.5	1.3	0.2	1.9

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	154	3
Peak Hour Factor	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	30	171	3
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	16
HCM LOS	C

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1569	2	0	1028	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	1705	2	0	1117	0	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1705
Stage 1	-	-	1705
Stage 2	-	-	559
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	369
Stage 1	-	-	132
Stage 2	-	-	536
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	369
Mov Cap-2 Maneuver	-	-	34
Stage 1	-	-	132
Stage 2	-	-	536

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	302	-	-	369	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s)	17	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**












Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	19	19	4	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	21	4	7	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	25	0	44
Stage 1	-	-	23
Stage 2	-	-	21
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	1589	-	967
Stage 1	-	-	1000
Stage 2	-	-	1002
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1589	-	967
Mov Cap-2 Maneuver	-	-	967
Stage 1	-	-	1000
Stage 2	-	-	1002

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1589	-	-	-	967
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	468	849	336	163	572	106	350	309	131	235	236
v/c Ratio	0.91	0.71	0.44	1.65	0.63	0.20	0.67	0.35	0.69	0.62	0.46
Control Delay	58.4	26.2	4.5	357.7	28.9	2.0	40.3	24.3	56.9	36.3	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	26.2	4.5	357.7	28.9	2.0	40.3	24.3	56.9	36.3	7.2
Queue Length 50th (ft)	117	184	0	~117	127	0	82	61	62	104	0
Queue Length 95th (ft)	#252	278	55	#261	192	9	#160	102	#162	176	48
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	517	1525	875	99	1237	655	558	1285	191	575	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.56	0.38	1.65	0.46	0.16	0.63	0.24	0.69	0.41	0.36

**Intersection Summary**

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

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Existing plus Project  
AM Peak

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%				0%			0%		
Storage Length (ft)		290		210		200		450	200		0	185
Storage Lanes		2		0		1		1	2		0	1
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00
Ped Bike Factor												
Frt				0.850				0.850		0.995		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3336	3374	1568	0	1805	3574	1583	3400	3522	0	1752
Flt Permitted		0.784				0.784			0.950			0.950
Satd. Flow (perm)	0	2753	3374	1568	0	1490	3574	1583	3400	3522	0	1752
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				284				122		4		
Link Speed (mph)			50				50			30		
Link Distance (ft)			437				631			452		
Travel Time (s)			6.0				8.6			10.3		

Intersection Summary




















Area Type: Other

Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1881	1599
Flt Permitted		
Satd. Flow (perm)	1881	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		139
Link Speed (mph)	30	
Link Distance (ft)	543	
Travel Time (s)	12.3	

Intersection Summary

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Existing plus Project  
 AM Peak

















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.865			0.995				0.850
Flt Protected		0.954					0.950			0.950		
Satd. Flow (prot)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Flt Permitted		0.954					0.950			0.950		
Satd. Flow (perm)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			2395			452	
Travel Time (s)		6.0			16.4			54.4			10.3	

Intersection Summary

Area Type: Other

El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Existing plus Project  
 AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.873			0.958			0.957			0.998	
Flt Protected					0.983		0.950			0.950		
Satd. Flow (prot)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Flt Permitted					0.983		0.950			0.950		
Satd. Flow (perm)	0	1626	0	0	1754	0	1770	1783	0	1770	1859	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		2395			982			1162			698	
Travel Time (s)		54.4			22.3			17.6			10.6	

Intersection Summary

Area Type: Other

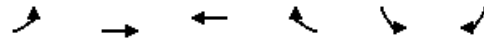




Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		100	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	50			50	30	
Link Distance (ft)	1235			437	300	
Travel Time (s)	16.8			6.0	6.8	

**Intersection Summary**

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.966			
Flt Protected					0.950	
Satd. Flow (prot)	0	1863	1799	0	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1799	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		228	265		183	
Travel Time (s)		5.2	6.0		4.2	

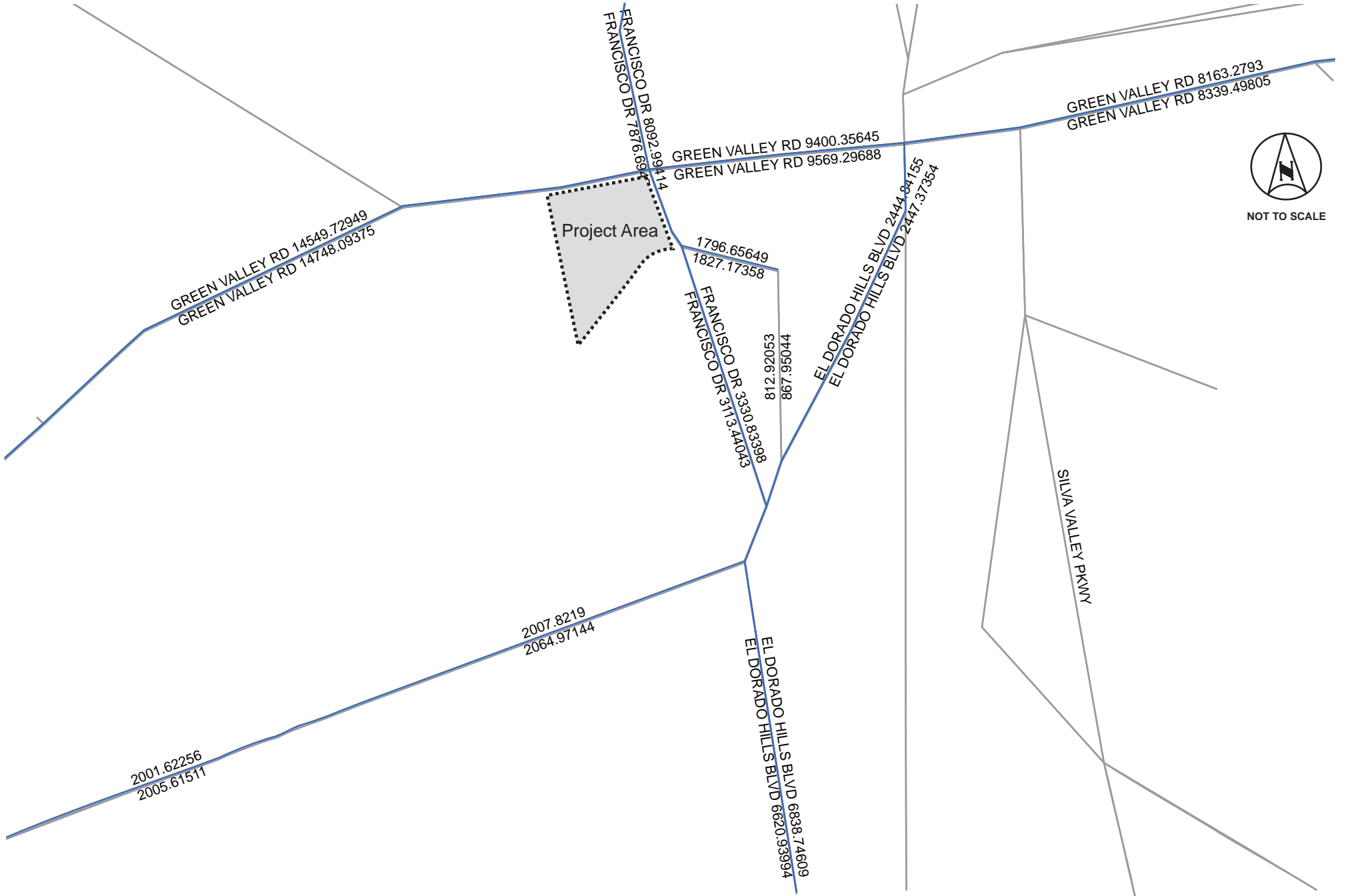
**Intersection Summary**

Area Type: Other

**Appendix D:**

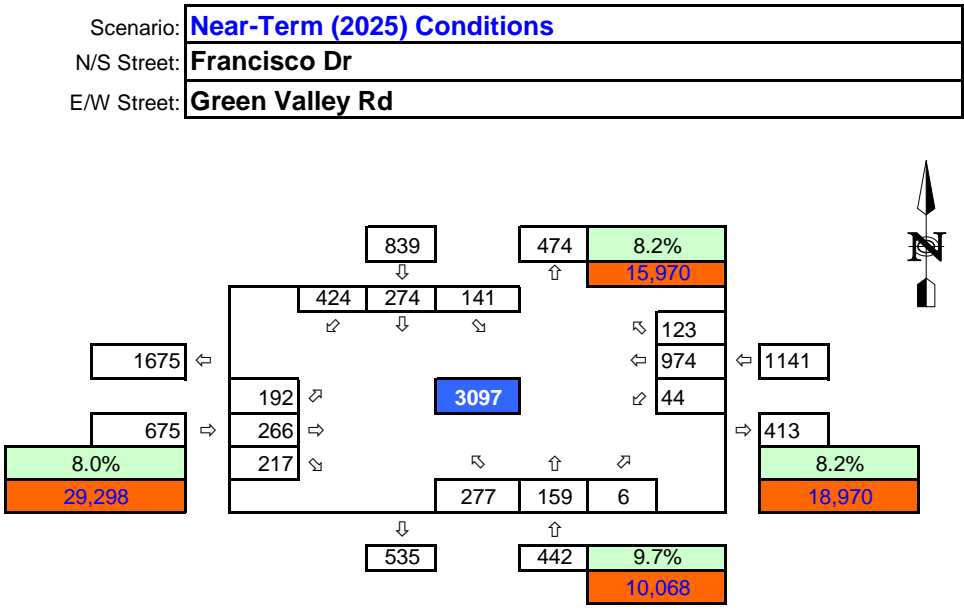
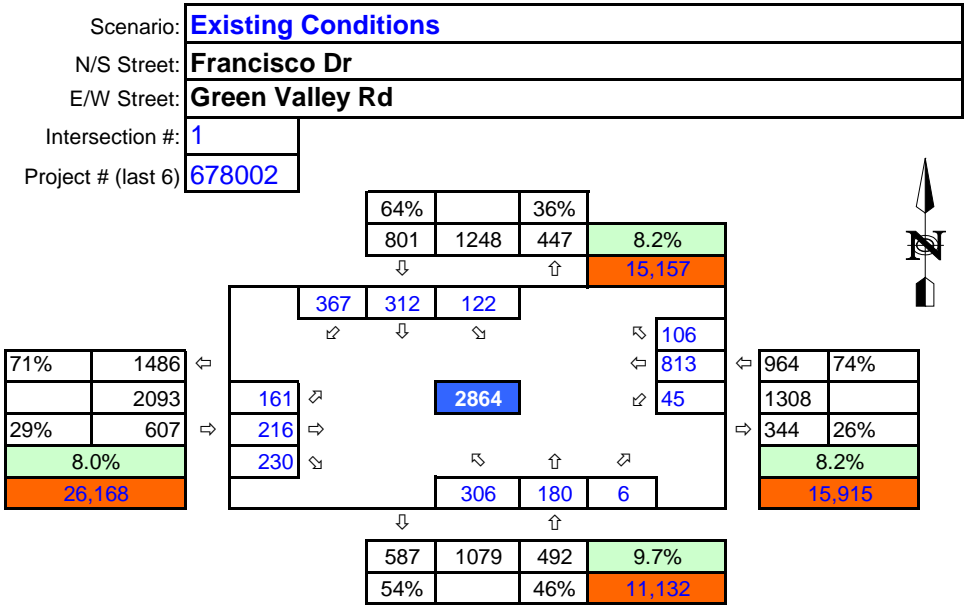
*Near-Term (2025) Traffic Volumes*

# El Dorado Hills Memory Care Center: Traffic Impact Analysis



NOT TO SCALE

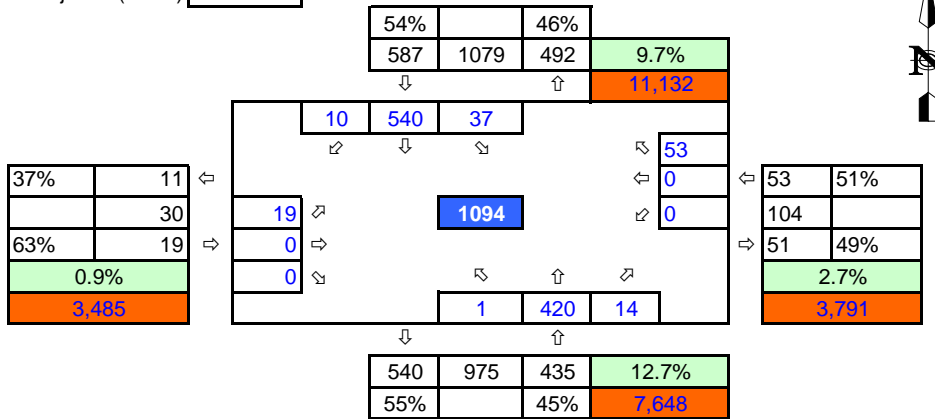
# Int 1 AM Peak Volumes



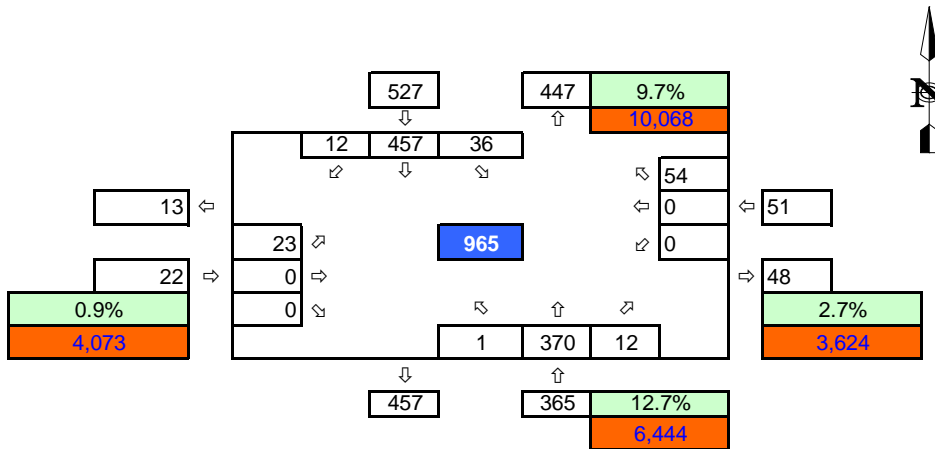
LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

# Int 2 AM Peak Volumes

Scenario:	<b>Existing Conditions</b>
N/S Street:	<b>Francisco Dr</b>
E/W Street:	<b>Embarcadero Dr / Cambria Way</b>
Intersection #:	<b>2</b>
Project # (last 6)	<b>678002</b>



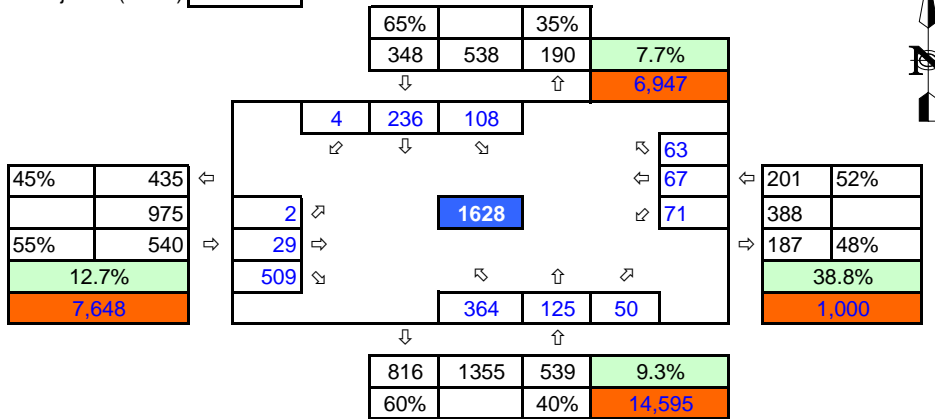
Scenario:	<b>Near-Term (2025) Conditions</b>
N/S Street:	<b>Francisco Dr</b>
E/W Street:	<b>Embarcadero Dr / Cambria Way</b>



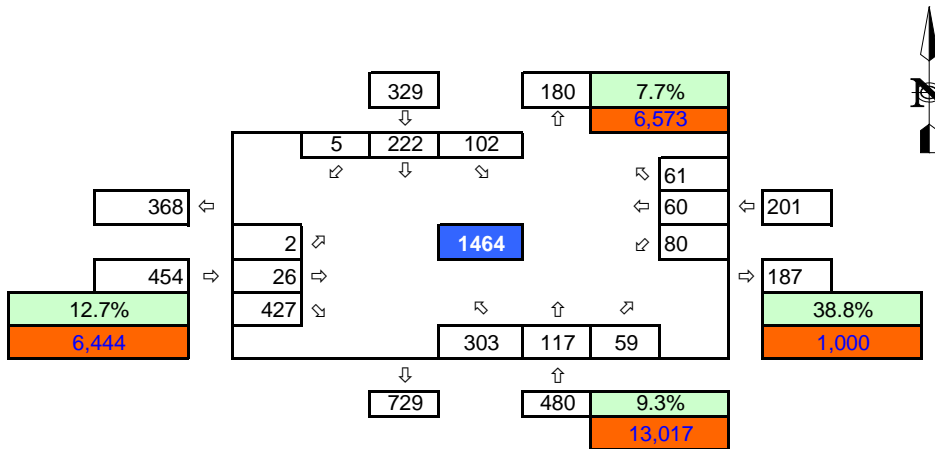
LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

# Int 3 AM Peak Volumes

Scenario:	<b>Existing Conditions</b>
N/S Street:	<b>El Dorado Hills Blvd</b>
E/W Street:	<b>Francisco Dr</b>
Intersection #:	<b>3</b>
Project # (last 6)	<b>678002</b>

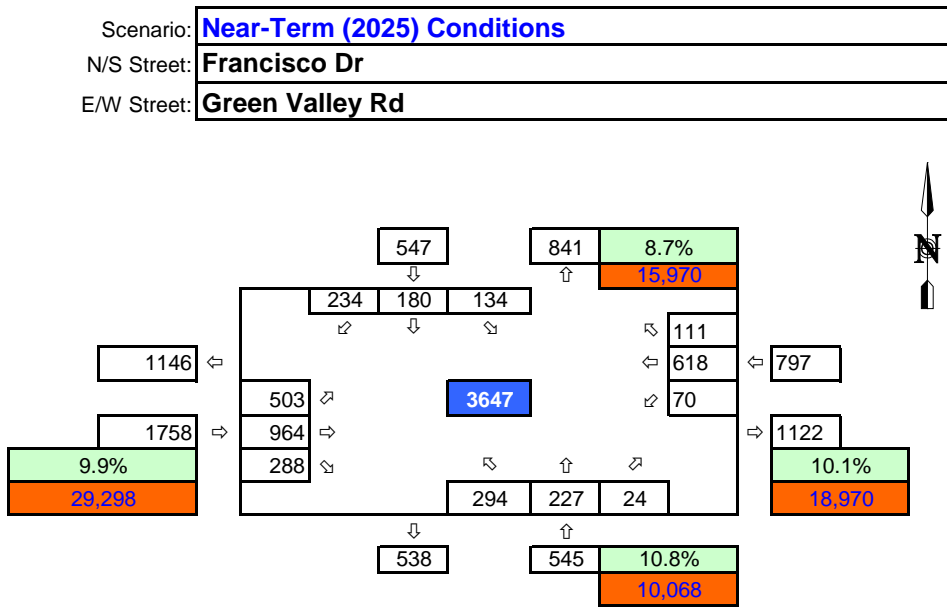
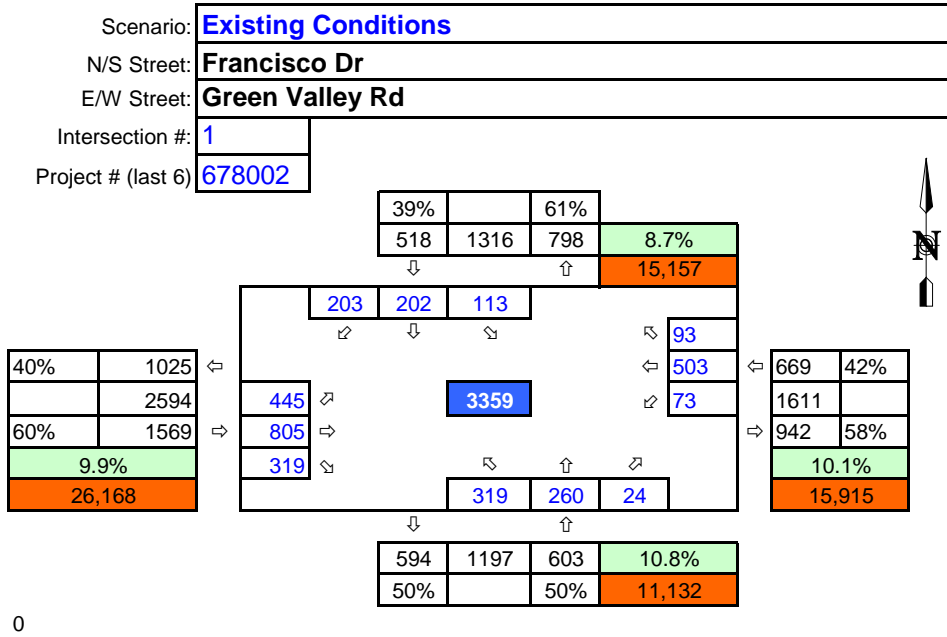


Scenario:	<b>Near-Term (2025) Conditions</b>
N/S Street:	<b>El Dorado Hills Blvd</b>
E/W Street:	<b>Francisco Dr</b>



LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

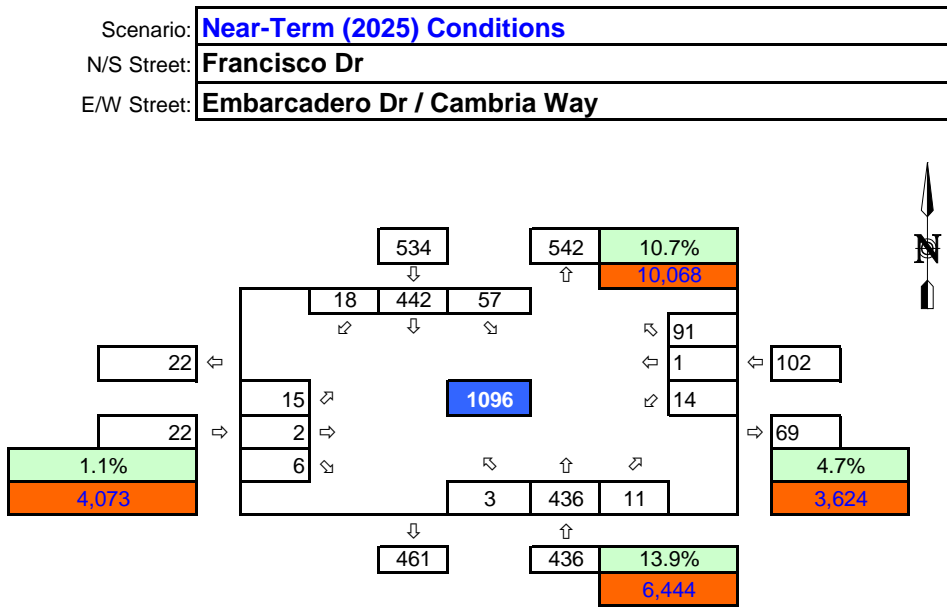
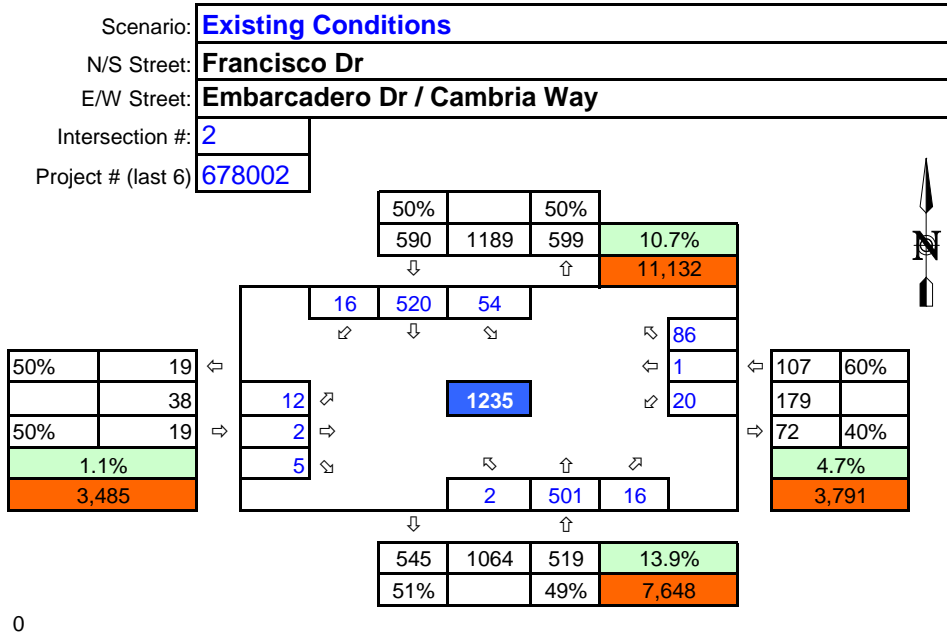
# Int 1 PM Peak Volumes



LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

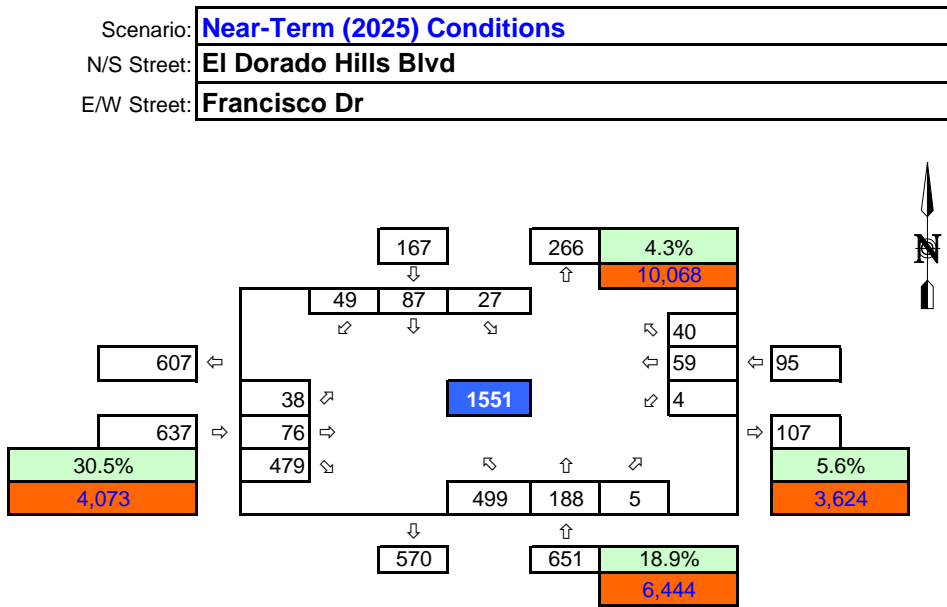
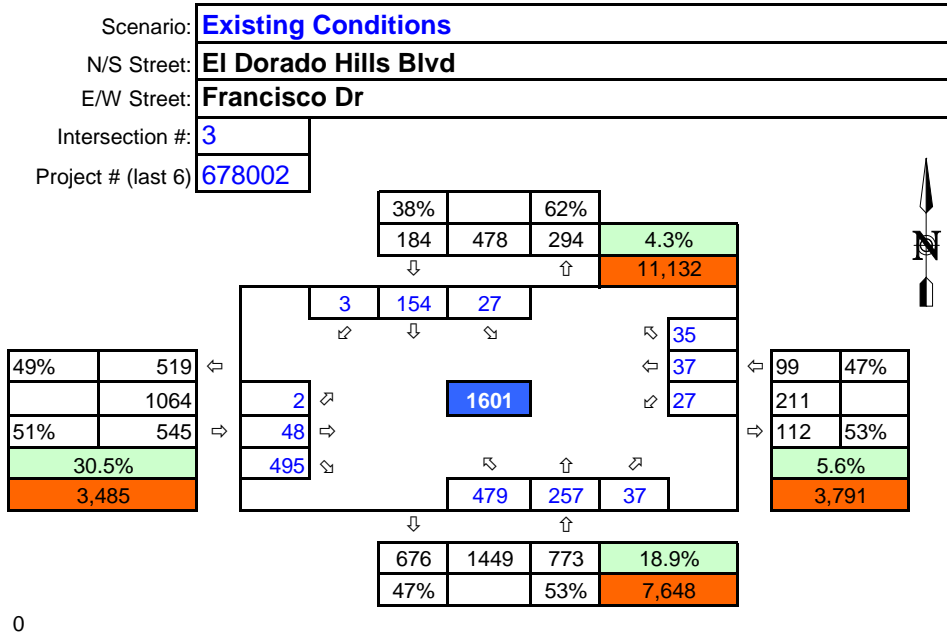


# Int 2 PM Peak Volumes



LEGEND	
Existing K-Factor	xx%
ADT Volume	xx

## Int 3 PM Peak Volumes



<b>LEGEND</b>	
Existing K-Factor	xx%
ADT Volume	xx

**Appendix E:**

*Analysis Worksheets for  
Near-Term (2025) Conditions*

El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Near-Term (2025)  
AM Peak

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	192	266	217	15	44	974	123	280	161	6	141
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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	1863		1872	1863	1863	1863	1863	1900	1863
Adj Flow Rate, veh/h		209	289	236		48	1059	134	304	175	7	153
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		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
Cap, veh/h		197	1212	542		61	1130	506	385	1075	43	187
Arrive On Green		0.06	0.34	0.34		0.03	0.32	0.32	0.11	0.31	0.31	0.11
Sat Flow, veh/h		3442	3539	1583		1783	3539	1583	3442	3470	138	1774
Grp Volume(v), veh/h		209	289	236		48	1059	134	304	89	93	153
Grp Sat Flow(s),veh/h/ln		1721	1770	1583		1783	1770	1583	1721	1770	1838	1774
Q Serve(g_s), s		5.0	5.1	10.1		2.3	25.4	5.5	7.5	3.2	3.2	7.4
Cycle Q Clear(g_c), s		5.0	5.1	10.1		2.3	25.4	5.5	7.5	3.2	3.2	7.4
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.08	1.00
Lane Grp Cap(c), veh/h		197	1212	542		61	1130	506	385	548	570	187
V/C Ratio(X)		1.06	0.24	0.44		0.79	0.94	0.26	0.79	0.16	0.16	0.82
Avail Cap(c_a), veh/h		197	1212	542		102	1146	513	473	557	578	223
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.2	20.6	22.2		41.9	28.9	22.1	37.8	21.9	21.9	38.3
Incr Delay (d2), s/veh		81.3	0.1	0.6		19.7	14.0	0.3	7.2	0.1	0.1	18.0
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
%ile BackOfQ(50%),veh/ln		4.6	2.5	4.4		1.5	14.5	2.4	4.0	1.6	1.7	4.5
LnGrp Delay(d),s/veh		122.5	20.7	22.8		61.6	42.8	22.4	45.0	22.1	22.1	56.3
LnGrp LOS		F	C	C		E	D	C	D	C	C	E
Approach Vol, veh/h			734				1241			486		
Approach Delay, s/veh			50.3				41.4			36.4		
Approach LOS			D				D			D		
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	35.6	13.8	31.0	9.0	33.6	13.2	31.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.3	12.1	9.5	27.0	7.0	27.4	9.4	5.2				
Green Ext Time (p_c), s	0.0	8.8	0.3	0.0	0.0	0.5	0.1	4.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			44.6									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↗
Volume (veh/h)	274	424
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	298	461
Adj No. of Lanes	1	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	565	480
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1863	1583
Grp Volume(v), veh/h	298	461
Grp Sat Flow(s),veh/h/ln	1863	1583
Q Serve(g_s), s	11.6	25.0
Cycle Q Clear(g_c), s	11.6	25.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	565	480
V/C Ratio(X)	0.53	0.96
Avail Cap(c_a), veh/h	565	480
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	25.3	29.9
Incr Delay (d2), s/veh	0.9	31.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	15.0
LnGrp Delay(d),s/veh	26.2	61.0
LnGrp LOS	C	E
Approach Vol, veh/h	912	
Approach Delay, s/veh	48.8	
Approach LOS	D	
Timer		

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	0	0	0	0	54	1	370	12	38	484	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	0	0	0	0	59	1	402	13	41	526	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1049	1026	526	1020	1020	409	526	0	0	415	0	0
Stage 1	609	609	-	411	411	-	-	-	-	-	-	-
Stage 2	440	417	-	609	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	205	235	552	215	237	642	1041	-	-	1144	-	-
Stage 1	482	485	-	618	595	-	-	-	-	-	-	-
Stage 2	596	591	-	482	485	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	181	226	552	209	228	642	1041	-	-	1144	-	-
Mov Cap-2 Maneuver	181	226	-	209	228	-	-	-	-	-	-	-
Stage 1	482	468	-	617	594	-	-	-	-	-	-	-
Stage 2	541	590	-	465	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.1	11.2	0	0.6
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1041	-	-	181	642	1144	-	-
HCM Lane V/C Ratio	0.001	-	-	0.138	0.091	0.036	-	-
HCM Control Delay (s)	8.5	-	-	28.1	11.2	8.3	-	-
HCM Lane LOS	A	-	-	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-	-

Intersection												
Intersection Delay, s/veh	39.8											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	28	454	0	80	60	61	0	317	117	62
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	2	30	493	0	87	65	66	0	345	127	67
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	65.6	22.8	34
HCM LOS	F	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	0%	40%	100%	0%
Vol Thru, %	0%	65%	93%	0%	30%	0%	97%
Vol Right, %	0%	35%	0%	100%	30%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	317	179	30	454	201	102	228
LT Vol	317	0	2	0	80	102	0
Through Vol	0	117	28	0	60	0	222
RT Vol	0	62	0	454	61	0	6
Lane Flow Rate	345	195	33	493	218	111	248
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.841	0.435	0.076	1	0.552	0.282	0.594
Departure Headway (Hd)	8.789	8.047	8.391	7.633	9.102	9.153	8.635
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	413	448	427	474	398	394	419
Service Time	6.527	5.785	6.147	5.389	7.144	6.895	6.376
HCM Lane V/C Ratio	0.835	0.435	0.077	1.04	0.548	0.282	0.592
HCM Control Delay	43.7	16.9	11.8	69.2	22.8	15.5	23.3
HCM Lane LOS	E	C	B	F	C	C	C
HCM 95th-tile Q	8	2.2	0.2	13.3	3.2	1.1	3.7

**Intersection**

Intersection Delay, s/veh












Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	102	222	6
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	111	241	7
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	20.9
HCM LOS	C

**Lane**



											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	289	236	64	1059	134	304	182	153	298	461
v/c Ratio	1.24	0.23	0.33	0.58	0.92	0.22	0.67	0.19	0.71	0.60	0.88
Control Delay	184.8	22.1	4.7	63.4	42.4	5.3	44.3	23.1	56.6	32.7	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.8	22.1	4.7	63.4	42.4	5.3	44.3	23.1	56.6	32.7	40.6
Queue Length 50th (ft)	~80	64	0	36	307	0	86	38	85	142	175
Queue Length 95th (ft)	#151	96	50	#96	#441	39	128	64	#174	223	#341
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	170	1243	709	110	1184	618	487	1147	230	583	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.23	0.33	0.58	0.89	0.22	0.62	0.16	0.67	0.51	0.78

**Intersection Summary**

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

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	503	964	347	65	85	618	111	378	292	31	134	217
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1863		1879	1863	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	547	1048	377		92	672	121	411	317	34	146	236
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	460	1295	579		109	1037	464	487	824	88	172	392
Arrive On Green	0.13	0.37	0.37		0.06	0.29	0.29	0.14	0.26	0.26	0.10	0.21
Sat Flow, veh/h	3442	3539	1583		1789	3539	1583	3442	3228	344	1774	1863
Grp Volume(v), veh/h	547	1048	377		92	672	121	411	173	178	146	236
Grp Sat Flow(s),veh/h/ln	1721	1770	1583		1789	1770	1583	1721	1770	1802	1774	1863
Q Serve(g_s), s	11.0	22.0	16.3		4.2	13.6	4.8	9.6	6.6	6.7	6.7	9.4
Cycle Q Clear(g_c), s	11.0	22.0	16.3		4.2	13.6	4.8	9.6	6.6	6.7	6.7	9.4
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	460	1295	579		109	1037	464	487	452	460	172	392
V/C Ratio(X)	1.19	0.81	0.65		0.85	0.65	0.26	0.84	0.38	0.39	0.85	0.60
Avail Cap(c_a), veh/h	460	1367	611		109	1109	496	502	580	591	172	520
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	23.5	21.7		38.3	25.4	22.3	34.5	25.3	25.3	36.6	29.4
Incr Delay (d2), s/veh	105.3	3.6	2.3		42.9	1.2	0.3	12.2	0.5	0.5	30.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	11.3	7.5		3.4	6.8	2.1	5.4	3.3	3.4	4.7	5.0
LnGrp Delay(d),s/veh	141.0	27.1	24.0		81.2	26.6	22.6	46.6	25.8	25.9	67.1	30.9
LnGrp LOS	F	C	C		F	C	C	D	C	C	E	C
Approach Vol, veh/h		1972				885			762			636
Approach Delay, s/veh		58.1				31.7			37.1			41.2
Approach LOS		E				C			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	35.8	15.7	21.9	15.0	29.8	12.0	25.5				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	6.2	24.0	11.6	14.4	13.0	15.6	8.7	8.7				
Green Ext Time (p_c), s	0.0	6.2	0.1	2.9	0.0	7.7	0.0	4.2				

Intersection Summary												
HCM 2010 Ctrl Delay	46.3											
HCM 2010 LOS	D											

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	7
Volume (veh/h)	234
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	254
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	334
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	254
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	12.4
Cycle Q Clear(g_c), s	12.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	334
V/C Ratio(X)	0.76
Avail Cap(c_a), veh/h	442
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	30.6
Incr Delay (d2), s/veh	5.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	5.9
LnGrp Delay(d),s/veh	36.0
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

**Intersection**

Int Delay, s/veh 2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	15	2	8	18	1	91	4	588	15	7	57	567	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	2	2	2
Mvmt Flow	16	2	9	20	1	99	4	639	16	8	62	616	20

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1446	1419	616	1402	1411	655	616	0	0	754	655	0	0
Stage 1	740	755	-	656	656	-	-	-	-	-	-	-	-
Stage 2	706	664	-	746	755	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	137	491	117	138	466	964	-	-	-	932	-	-
Stage 1	409	417	-	454	462	-	-	-	-	-	-	-	-
Stage 2	427	458	-	405	417	-	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-	-
Mov Cap-1 Maneuver	85	136	491	113	137	466	964	-	-	-9	-9	-	-
Mov Cap-2 Maneuver	85	136	-	113	137	-	-	-	-	-	-	-	-
Stage 1	407	417	-	452	460	-	-	-	-	-	-	-	-
Stage 2	334	456	-	396	417	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	43.6	24.3	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	964	-	-	120	304	+	-	-
HCM Lane V/C Ratio	0.005	-	-	0.226	0.393	-	-	-
HCM Control Delay (s)	8.8	-	-	43.6	24.3	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.8	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Intersection Delay, s/veh	46.1											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	38	76	479	0	4	59	40	0	499	188	5
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	41	83	521	0	4	64	43	0	542	204	5
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	49.5	14.2	55.4
HCM LOS	E	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	0%	4%	100%	0%
Vol Thru, %	0%	97%	67%	0%	57%	0%	64%
Vol Right, %	0%	3%	0%	100%	39%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	499	193	114	479	103	27	136
LT Vol	499	0	38	0	4	27	0
Through Vol	0	188	76	0	59	0	87
RT Vol	0	5	0	479	40	0	49
Lane Flow Rate	542	210	124	521	112	29	148
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1	0.431	0.261	0.973	0.257	0.071	0.329
Departure Headway (Hd)	7.923	7.391	7.591	6.726	8.257	8.767	8.012
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	485	473	541	434	408	448
Service Time	5.699	5.167	5.337	4.473	6.326	6.538	5.783
HCM Lane V/C Ratio	1.189	0.433	0.262	0.963	0.258	0.071	0.33
HCM Control Delay	70.7	15.7	13	58.2	14.2	12.2	14.7
HCM Lane LOS	F	C	B	F	B	B	B
HCM 95th-tile Q	13	2.1	1	13.1	1	0.2	1.4

**Intersection**












Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	87	49
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	29	95	53
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.3
HCM LOS	B

**Lane**
























											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	547	1048	377	163	672	121	411	351	146	236	254
v/c Ratio	1.16	0.81	0.46	1.77	0.66	0.21	0.80	0.40	0.82	0.64	0.52
Control Delay	127.8	30.0	4.4	418.8	29.3	2.7	48.6	26.0	74.8	38.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.8	30.0	4.4	418.8	29.3	2.7	48.6	26.0	74.8	38.7	10.4
Queue Length 50th (ft)	~182	248	0	~131	156	0	109	77	77	115	15
Queue Length 95th (ft)	#308	367	57	#269	237	20	#204	115	#199	187	76
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	472	1407	856	92	1142	622	515	1185	177	536	612
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.74	0.44	1.77	0.59	0.19	0.80	0.30	0.82	0.44	0.42

**Intersection Summary**

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

El Dorado Hills Memory Care Center  
 1: Francisco Dr. & Green Valley Rd.

Near-Term (2025)  
 PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	290		210	200		450	200		0	185		0
Storage Lanes	2		0	1		1	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850					0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1863	3433	3493	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	1770	3539	1863	3433	3493	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289					12				228
Link Speed (mph)		50			50			30			30	
Link Distance (ft)		437			631			452			543	
Travel Time (s)		6.0			8.6			10.3			12.3	




















Intersection Summary

Area Type: Other



El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Near-Term (2025)  
 PM Peak




















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.962			0.884			0.996				0.850
Flt Protected		0.969			0.994		0.950		0.950			
Satd. Flow (prot)	0	1736	0	0	1637	0	1770	1855	0	1770	1863	1583
Flt Permitted		0.969			0.994		0.950		0.950			
Satd. Flow (perm)	0	1736	0	0	1637	0	1770	1855	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			452			452	
Travel Time (s)		6.0			16.4			10.3			10.3	

Intersection Summary

Area Type: Other

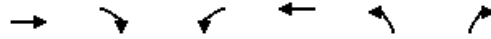
El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Near-Term (2025)  
 PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.947			0.996			0.945	
Flt Protected		0.984			0.998		0.950			0.950		
Satd. Flow (prot)	0	1833	1583	0	1760	0	1770	1855	0	1770	1760	0
Flt Permitted		0.984			0.998		0.950			0.950		
Satd. Flow (perm)	0	1833	1583	0	1760	0	1770	1855	0	1770	1760	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1943			982			1162			698	
Travel Time (s)		44.2			22.3			17.6			10.6	

Intersection Summary

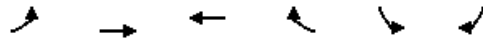
Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		100	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	3539	1863	0	3539	0	1863
Flt Permitted						
Satd. Flow (perm)	3539	1863	0	3539	0	1863
Link Speed (mph)	50			50	30	
Link Distance (ft)	1235			437	300	
Travel Time (s)	16.8			6.0	6.8	

**Intersection Summary**

Area Type: Other

























Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Flt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	1863	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		228	265		183	
Travel Time (s)		5.2	6.0		4.2	

**Intersection Summary**

Area Type: Other

**Appendix F:**

*Analysis Worksheets for  
Near-Term (2025) plus Proposed Project Conditions*

												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	192	267	217	15	46	974	123	281	161	6	141
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		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	1863		1872	1863	1863	1863	1863	1900	1863
Adj Flow Rate, veh/h		209	290	236		50	1059	134	305	175	7	153
Adj No. of Lanes		2	2	1		1	2	1	2	2	0	1
Peak Hour Factor		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
Cap, veh/h		197	1206	540		64	1130	506	386	1075	43	187
Arrive On Green		0.06	0.34	0.34		0.04	0.32	0.32	0.11	0.31	0.31	0.11
Sat Flow, veh/h		3442	3539	1583		1783	3539	1583	3442	3470	138	1774
Grp Volume(v), veh/h		209	290	236		50	1059	134	305	89	93	153
Grp Sat Flow(s),veh/h/ln		1721	1770	1583		1783	1770	1583	1721	1770	1838	1774
Q Serve(g_s), s		5.0	5.1	10.1		2.4	25.4	5.5	7.5	3.2	3.2	7.4
Cycle Q Clear(g_c), s		5.0	5.1	10.1		2.4	25.4	5.5	7.5	3.2	3.2	7.4
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.08	1.00
Lane Grp Cap(c), veh/h		197	1206	540		64	1130	506	386	549	570	187
V/C Ratio(X)		1.06	0.24	0.44		0.79	0.94	0.27	0.79	0.16	0.16	0.82
Avail Cap(c_a), veh/h		197	1206	540		102	1146	512	472	557	578	223
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		41.2	20.7	22.3		41.8	28.9	22.1	37.8	21.9	21.9	38.3
Incr Delay (d2), s/veh		81.4	0.1	0.6		18.8	14.0	0.3	7.2	0.1	0.1	18.0
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
%ile BackOfQ(50%),veh/ln		4.6	2.5	4.5		1.5	14.6	2.4	4.0	1.6	1.7	4.5
LnGrp Delay(d),s/veh		122.6	20.8	22.9		60.6	42.9	22.4	45.0	22.1	22.1	56.3
LnGrp LOS		F	C	C		E	D	C	D	C	C	E
Approach Vol, veh/h			735				1243			487		
Approach Delay, s/veh			50.4				41.4			36.4		
Approach LOS			D				D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	35.5	13.8	31.0	9.0	33.6	13.2	31.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	28.3	12.0	26.5	5.0	28.3	11.0	27.5				
Max Q Clear Time (g_c+I1), s	4.4	12.1	9.5	27.0	7.0	27.4	9.4	5.2				
Green Ext Time (p_c), s	0.0	8.8	0.3	0.0	0.0	0.5	0.1	4.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			44.7									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

	↓	↙
Movement	SBT	SBR
Lane Configurations	↑	↑
Volume (veh/h)	274	424
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	298	461
Adj No. of Lanes	1	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	565	480
Arrive On Green	0.30	0.30
Sat Flow, veh/h	1863	1583
Grp Volume(v), veh/h	298	461
Grp Sat Flow(s),veh/h/ln	1863	1583
Q Serve(g_s), s	11.6	25.0
Cycle Q Clear(g_c), s	11.6	25.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	565	480
V/C Ratio(X)	0.53	0.96
Avail Cap(c_a), veh/h	565	480
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	25.3	30.0
Incr Delay (d2), s/veh	0.9	31.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	15.0
LnGrp Delay(d),s/veh	26.2	61.1
LnGrp LOS	C	E
Approach Vol, veh/h	912	
Approach Delay, s/veh	48.9	
Approach LOS	D	
Timer		

**Intersection**

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	0	1	0	0	54	3	370	12	38	484	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	0	1	0	0	59	3	402	13	41	526	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1054	1031	526	1024	1024	409	526	0	0	415	0	0
Stage 1	609	609	-	415	415	-	-	-	-	-	-	-
Stage 2	445	422	-	609	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	204	233	552	214	235	642	1041	-	-	1144	-	-
Stage 1	482	485	-	615	592	-	-	-	-	-	-	-
Stage 2	592	588	-	482	485	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	180	224	552	207	226	642	1041	-	-	1144	-	-
Mov Cap-2 Maneuver	180	224	-	207	226	-	-	-	-	-	-	-
Stage 1	481	468	-	613	590	-	-	-	-	-	-	-
Stage 2	536	586	-	464	468	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.8	11.2	0.1	0.6
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1041	-	-	185	642	1144	-	-
HCM Lane V/C Ratio	0.003	-	-	0.147	0.091	0.036	-	-
HCM Control Delay (s)	8.5	-	-	27.8	11.2	8.3	-	-
HCM Lane LOS	A	-	-	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-	-



Intersection												
Intersection Delay, s/veh	40											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	28	455	0	80	60	61	0	319	117	62
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	2	30	495	0	87	65	66	0	347	127	67
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	65.7	22.9	34.6
HCM LOS	F	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	0%	40%	100%	0%
Vol Thru, %	0%	65%	93%	0%	30%	0%	97%
Vol Right, %	0%	35%	0%	100%	30%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	319	179	30	455	201	102	228
LT Vol	319	0	2	0	80	102	0
Through Vol	0	117	28	0	60	0	222
RT Vol	0	62	0	455	61	0	6
Lane Flow Rate	347	195	33	495	218	111	248
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.847	0.435	0.076	1	0.553	0.282	0.595
Departure Headway (Hd)	8.793	8.051	8.402	7.644	9.114	9.161	8.643
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	413	448	426	475	398	392	419
Service Time	6.53	5.788	6.157	5.399	7.154	6.903	6.384
HCM Lane V/C Ratio	0.84	0.435	0.077	1.042	0.548	0.283	0.592
HCM Control Delay	44.6	16.9	11.9	69.3	22.9	15.5	23.4
HCM Lane LOS	E	C	B	F	C	C	C
HCM 95th-tile Q	8.1	2.2	0.2	13.2	3.2	1.1	3.7

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	102	222	6
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	111	241	7
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	21
HCM LOS	C

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	677	2	0	1681	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	736	2	0	1827	0	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	736
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	865
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	865
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	629	-	-	865	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	23	14	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	15	4	2	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	20	0	42
Stage 1	-	-	17
Stage 2	-	-	25
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	1596	-	969
Stage 1	-	-	1006
Stage 2	-	-	998
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1596	-	969
Mov Cap-2 Maneuver	-	-	969
Stage 1	-	-	1006
Stage 2	-	-	998

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1596	-	-	-	969
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	290	236	66	1059	134	305	182	153	298	461
v/c Ratio	1.24	0.23	0.33	0.60	0.92	0.22	0.68	0.19	0.71	0.60	0.88
Control Delay	184.8	22.2	4.7	64.9	42.4	5.3	44.4	23.1	56.6	32.7	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.8	22.2	4.7	64.9	42.4	5.3	44.4	23.1	56.6	32.7	40.6
Queue Length 50th (ft)	~80	64	0	38	307	0	86	38	85	142	175
Queue Length 95th (ft)	#151	97	50	#100	#441	39	129	64	#174	223	#341
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	170	1243	709	110	1184	618	487	1147	230	583	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.23	0.33	0.60	0.89	0.22	0.63	0.16	0.67	0.51	0.78

**Intersection Summary**

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

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	503	966	347	65	87	618	111	381	292	31	134	217
Number	5	2	12		1	6	16	3	8	18	7	4
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1863		1878	1863	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	547	1050	377		95	672	121	414	317	34	146	236
Adj No. of Lanes	2	2	1		1	2	1	2	2	0	1	1
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	459	1295	579		108	1037	464	490	826	88	172	392
Arrive On Green	0.13	0.37	0.37		0.06	0.29	0.29	0.14	0.26	0.26	0.10	0.21
Sat Flow, veh/h	3442	3539	1583		1789	3539	1583	3442	3228	344	1774	1863
Grp Volume(v), veh/h	547	1050	377		95	672	121	414	173	178	146	236
Grp Sat Flow(s),veh/h/ln	1721	1770	1583		1789	1770	1583	1721	1770	1802	1774	1863
Q Serve(g_s), s	11.0	22.1	16.3		4.3	13.7	4.8	9.7	6.6	6.7	6.7	9.4
Cycle Q Clear(g_c), s	11.0	22.1	16.3		4.3	13.7	4.8	9.7	6.6	6.7	6.7	9.4
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	459	1295	579		108	1037	464	490	453	461	172	392
V/C Ratio(X)	1.19	0.81	0.65		0.88	0.65	0.26	0.85	0.38	0.39	0.85	0.60
Avail Cap(c_a), veh/h	459	1365	611		108	1107	495	501	579	590	172	519
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	23.6	21.8		38.4	25.4	22.3	34.5	25.3	25.3	36.6	29.4
Incr Delay (d2), s/veh	106.0	3.7	2.3		49.8	1.2	0.3	12.4	0.5	0.5	30.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	11.4	7.5		3.6	6.8	2.1	5.4	3.3	3.4	4.8	5.0
LnGrp Delay(d),s/veh	141.8	27.2	24.1		88.3	26.7	22.6	46.9	25.8	25.9	67.4	30.9
LnGrp LOS	F	C	C		F	C	C	D	C	C	E	C
Approach Vol, veh/h		1974				888			765			636
Approach Delay, s/veh		58.4				32.7			37.3			41.4
Approach LOS		E				C			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	35.9	15.7	21.9	15.0	29.9	12.0	25.6				
Change Period (Y+Rc), s	4.0	5.7	4.0	4.5	4.0	5.7	4.0	4.5				
Max Green Setting (Gmax), s	5.0	31.8	12.0	23.0	11.0	25.8	8.0	27.0				
Max Q Clear Time (g_c+I1), s	6.3	24.1	11.7	14.4	13.0	15.7	8.7	8.7				
Green Ext Time (p_c), s	0.0	6.1	0.1	2.9	0.0	7.7	0.0	4.2				

Intersection Summary												
HCM 2010 Ctrl Delay			46.7									
HCM 2010 LOS			D									

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	7
Volume (veh/h)	234
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	254
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	333
Arrive On Green	0.21
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	254
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	12.4
Cycle Q Clear(g_c), s	12.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	333
V/C Ratio(X)	0.76
Avail Cap(c_a), veh/h	442
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	30.6
Incr Delay (d2), s/veh	5.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	5.9
LnGrp Delay(d),s/veh	36.1
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

Intersection													
Int Delay, s/veh	2.9												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	18	2	11	18	1	91	6	588	15	7	57	567	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	50	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	0	2	2	2
Mvmt Flow	20	2	12	20	1	99	7	639	16	8	62	616	22

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1450	1423	616	1407	1415	655	616	0	0	754	655	0	0
Stage 1	740	755	-	660	660	-	-	-	-	-	-	-	-
Stage 2	710	668	-	747	755	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	136	491	117	137	466	964	-	-	-	932	-	-
Stage 1	409	417	-	452	460	-	-	-	-	-	-	-	-
Stage 2	424	456	-	405	417	-	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	85	135	491	112	136	466	964	-	-	-9	-9	-	-
Mov Cap-2 Maneuver	85	135	-	112	136	-	-	-	-	-	-	-	-
Stage 1	406	417	-	449	457	-	-	-	-	-	-	-	-
Stage 2	331	453	-	393	417	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	44.1	24.4	0.1	
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	964	-	-	125	303	+	-	-
HCM Lane V/C Ratio	0.007	-	-	0.27	0.395	-	-	-
HCM Control Delay (s)	8.8	-	-	44.1	24.4	-	-	-
HCM Lane LOS	A	-	-	E	C	-	-	-
HCM 95th %tile Q(veh)	0	-	-	1	1.8	-	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



Intersection												
Intersection Delay, s/veh	46.6											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	38	76	482	0	4	59	40	0	501	188	5
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, %	0	2	2	2	0	2	2	2	0	2	2	2
Mvmt Flow	0	41	83	524	0	4	64	43	0	545	204	5
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	50.7	14.2	55.5
HCM LOS	F	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	0%	4%	100%	0%
Vol Thru, %	0%	97%	67%	0%	57%	0%	64%
Vol Right, %	0%	3%	0%	100%	39%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	501	193	114	482	103	27	136
LT Vol	501	0	38	0	4	27	0
Through Vol	0	188	76	0	59	0	87
RT Vol	0	5	0	482	40	0	49
Lane Flow Rate	545	210	124	524	112	29	148
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1	0.431	0.261	0.979	0.257	0.072	0.33
Departure Headway (Hd)	7.936	7.404	7.592	6.728	8.268	8.78	8.025
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	485	473	540	433	407	446
Service Time	5.712	5.179	5.339	4.475	6.337	6.548	5.793
HCM Lane V/C Ratio	1.193	0.433	0.262	0.97	0.259	0.071	0.332
HCM Control Delay	70.8	15.7	13	59.6	14.2	12.2	14.7
HCM Lane LOS	F	C	B	F	B	B	B
HCM 95th-tile Q	13	2.1	1	13.3	1	0.2	1.4

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	87	49
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	2	2	2
Mvmt Flow	0	29	95	53
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.3
HCM LOS	B

**Lane**

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1814	2	0	1233	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	-	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	1972	2	0	1340	0	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1972
Stage 1	-	-	1972
Stage 2	-	-	670
Critical Hdwy	-	4.14	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	2.22	3.52
Pot Cap-1 Maneuver	-	290	19
Stage 1	-	-	94
Stage 2	-	-	470
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	290	19
Mov Cap-2 Maneuver	-	-	19
Stage 1	-	-	94
Stage 2	-	-	470

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	247	-	-	290	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	19.7	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection**












Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	25	23	4	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	25	4	7	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	29	0	54
Stage 1	-	-	27
Stage 2	-	-	27
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	1584	-	954
Stage 1	-	-	996
Stage 2	-	-	996
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1584	-	954
Mov Cap-2 Maneuver	-	-	954
Stage 1	-	-	996
Stage 2	-	-	996

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1584	-	-	-	954
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



























											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	547	1050	377	166	672	121	414	351	146	236	254
v/c Ratio	1.16	0.82	0.46	1.82	0.66	0.21	0.81	0.40	0.82	0.64	0.52
Control Delay	128.3	30.1	4.4	434.1	29.3	2.7	48.9	26.0	74.8	38.7	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.3	30.1	4.4	434.1	29.3	2.7	48.9	26.0	74.8	38.7	10.4
Queue Length 50th (ft)	~182	249	0	~135	156	0	110	77	77	115	15
Queue Length 95th (ft)	#308	368	57	#274	237	20	#205	115	#199	187	76
Internal Link Dist (ft)		357			551			372		463	
Turn Bay Length (ft)	290		210	200		450	200		185		
Base Capacity (vph)	471	1406	856	91	1140	621	514	1184	177	535	611
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.75	0.44	1.82	0.59	0.19	0.81	0.30	0.82	0.44	0.42

**Intersection Summary**

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





El Dorado Hills Memory Care Center  
1: Francisco Dr. & Green Valley Rd.

Near-Term (2025) plus Project  
AM Peak

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		 	 					 		 	 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)			0%				0%			0%		
Storage Length (ft)		290		210		200		450	200		0	185
Storage Lanes		2		0		1		1	2		0	1
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00
Ped Bike Factor												
Frt				0.850				0.850		0.994		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3434	3539	1583	0	1778	3539	1583	3433	3518	0	1770
Flt Permitted		0.800							0.950			0.950
Satd. Flow (perm)	0	2892	3539	1583	0	1872	3539	1583	3433	3518	0	1770
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				236				134		5		
Link Speed (mph)			50				50			30		
Link Distance (ft)			437				631			452		
Travel Time (s)			6.0				8.6			10.3		

Intersection Summary

Area Type: Other

		
Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1863	1583
Flt Permitted		
Satd. Flow (perm)	1863	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (mph)	30	
Link Distance (ft)	543	
Travel Time (s)	12.3	

Intersection Summary

El Dorado Hills Memory Care Center  
 2: Francisco Dr. & Cambria Way/Embarcadero Dr.

Near-Term (2025) plus Project  
 AM Peak




















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	50		0	50		110
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.865			0.995				0.850
Flt Protected		0.954					0.950			0.950		
Satd. Flow (prot)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Flt Permitted		0.954					0.950			0.950		
Satd. Flow (perm)	0	1768	0	0	1611	0	1770	1853	0	1770	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		265			721			452			452	
Travel Time (s)		6.0			16.4			10.3			10.3	

Intersection Summary

Area Type: Other

El Dorado Hills Memory Care Center  
 3: El Dorado Hills Blvd. & Francisco Dr.

Near-Term (2025) plus Project  
 AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.959			0.948			0.996	
Flt Protected		0.997			0.980		0.950			0.950		
Satd. Flow (prot)	0	1857	1583	0	1751	0	1770	1766	0	1770	1855	0
Flt Permitted		0.997			0.980		0.950			0.950		
Satd. Flow (perm)	0	1857	1583	0	1751	0	1770	1766	0	1770	1855	0
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		2033			982			1162			698	
Travel Time (s)		46.2			22.3			17.6			10.6	

Intersection Summary

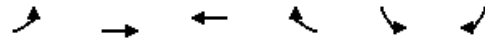
Area Type: Other



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		100	0		0	0
Storage Lanes		1	0		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3539	1583	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	1611
Link Speed (mph)	50			50	30	
Link Distance (ft)	1235			437	300	
Travel Time (s)	16.8			6.0	6.8	

**Intersection Summary**

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.972			
Flt Protected					0.950	
Satd. Flow (prot)	0	1863	1811	0	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1811	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		228	265		183	
Travel Time (s)		5.2	6.0		4.2	

Intersection Summary

Area Type: Other

**Appendix G:**

*Traffic Signal Warrant Worksheets*

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Intersection 2	No / No	??? / ???
# 3 Intersection 3	Yes	???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1	0	0	1	1	0	0	0	0	1
Initial Vol:	1	420	14	37	540	10	19	0	0	0	0	53
ApproachDel:	xxxxxx			xxxxxx			27.5			11.2		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1094]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=53]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1094]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign										
Lanes:	0	0	1	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	1
Initial Vol:	1	420	14	37	540	10	19	0	0	0	0	53								
Major Street Volume:							1022													
Minor Approach Volume:							53													
Minor Approach Volume Threshold:							277													

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Intersection 3

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	364	125	50	108	236	4	2	29	509	71	67	63
Major Street Volume:							887					
Minor Approach Volume:							540					
Minor Approach Volume Threshold:							326					

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Intersection 2	No / No	??? / ???
# 3 Intersection 3	Yes	???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0	0	0	1	0	0	1! 0	0	0	1! 0
Initial Vol:	2	501	16	54	520	16	12	2	5	20	1	86
ApproachDel:	xxxxxxx			xxxxxxx			35.7			21.5		

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=19]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1235]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=107]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1235]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Intersection 2

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	1	0	1 0 1	0	0	1! 0 0	0	0	1! 0 0
Initial Vol:	2	501	16	54	520	16	12	2	5	20	1	86
Major Street Volume:							1109					
Minor Approach Volume:							107					
Minor Approach Volume Threshold:							249					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Intersection 3

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	479	257	37	27	154	3	2	48	495	27	37	35
Major Street Volume:							957					
Minor Approach Volume:							545					
Minor Approach Volume Threshold:	300											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-----

Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----  
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	3	420	14			37	540	12			20	0	1			0	0			53					
ApproachDel:	xxxxxx					xxxxxx					35.7					11.7									

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=21]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1100]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=53]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1100]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	420		14		37	540		12		20	0		1		0	0		0	0	53	
Major Street Volume:											1026											
Minor Approach Volume:											53											
Minor Approach Volume Threshold:											276											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	366	125	50	108	236	4	2	29	510	71	67	63
Major Street Volume:	889											
Minor Approach Volume:	541											
Minor Approach Volume Threshold:	325											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	T	R		L	T	R		L	T	R		L	T	R		
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled				
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	1	0	0	2	0
Initial Vol:	0	0	1		0	0	0		0	1488	0		0	1488	0		
ApproachDel:	16.0				xxxxxx				xxxxxx				xxxxxx				

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=1]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=2977]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	1		0	0	0		0	1488	0		0	1488	0	
Major Street Volume:													2976			
Minor Approach Volume:													1			
Minor Approach Volume Threshold:	-91 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		2	0	0		0	19	0		0	11	4	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=36]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		2	0	0		0	19	0		0	11	4	
Major Street Volume:													34			
Minor Approach Volume:													2			
Minor Approach Volume Threshold:	1121															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----  
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???



Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	4	501	16	54	520	18	15	2	8	20	1	86	36.3	21.8											
ApproachDel:	xxxxxxx					xxxxxxx					36.3					21.8									

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1245]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=107]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1245]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1
Initial Vol:	4	501	16	54	520	18	15	2	8	20	1	86
Major Street Volume:	1113											
Minor Approach Volume:	107											
Minor Approach Volume Threshold:	248											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	481	257	37	27	154	3	2	48	498	27	37	35
Major Street Volume:							959					
Minor Approach Volume:							548					
Minor Approach Volume Threshold:							299					

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	2		0	0	0		0	1569	2		0	1028	0	
ApproachDel:	16.8				xxxxxxx				xxxxxxx				xxxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=2601]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	2	0	0	0	0	0	0	1569	0	0	2	0	1028	0	0	0
Major Street Volume:					2599															
Minor Approach Volume:					2															
Minor Approach Volume Threshold:					-44 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		6	0	0		0	19	0		0	19	4	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=6]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=48]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Initial Vol:	0		0		0	6		0		0	0		19		0	0		19		4
Major Street Volume:					42															
Minor Approach Volume:					6															
Minor Approach Volume Threshold:	1065																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration



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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	
Initial Vol:	1	370	12	38	484	13	23	0	0	0	0	0	54									
ApproachDel:	xxxxxxx					xxxxxxx					27.7					11.1						

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=23]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=995]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=54]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=995]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	1
Initial Vol:	1	370		12		38	484		13		23	0		0		0	0		0	54
Major Street Volume:											918									
Minor Approach Volume:																54				
Minor Approach Volume Threshold:																314				

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	317	117	62	102	222	6	2	28	454	80	60	61
Major Street Volume:							826					
Minor Approach Volume:							484					
Minor Approach Volume Threshold:							351					

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	677	0	0	0	0	1680	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	0		0	0	0		0	677	0		0	1680	0	
Major Street Volume:													2357			
Minor Approach Volume:													0			
Minor Approach Volume Threshold:	-11 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1!	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	14	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Initial Vol:	0	0	0		0	0	0		0	23	0		0	14	0	
Major Street Volume:													37			
Minor Approach Volume:													0			
Minor Approach Volume Threshold:	1099															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	4	588		15		57	567		18		15	2		8		18	1		91	
ApproachDel:	xxxxxxx					xxxxxxx					44.9					24.8				

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1384]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=110]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1384]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1
Initial Vol:	4	588	15	57	567	18	15	2	8	18	1	91
Major Street Volume:							1249					
Minor Approach Volume:							110					
Minor Approach Volume Threshold:							208					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	499	188		5		27	87		49		38	76		479		4	59		40						
Major Street Volume:											855														
Minor Approach Volume:											593														
Minor Approach Volume Threshold:											339														

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	1814	0	0	0	0	1230	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0		0	0	0	0		0	1814	0			0	1230	0		
Major Street Volume:	3044																			
Minor Approach Volume:	0																			
Minor Approach Volume Threshold:	-99 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1!	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	23	0	0	0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx							

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1!	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	0		0		0	0		0		0	0	25		0		0	23		0	
Major Street Volume:					48															
Minor Approach Volume:					0															
Minor Approach Volume Threshold:					1029															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

-----  
Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	370	12	38	484	15	24	0	1	0	0	0	54	0	0	54	0	0	54	0	0	54
ApproachDel:	xxxxxx					xxxxxx					27.5					11.1						

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=25]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1001]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=54]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1001]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign						
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	
Initial Vol:	3	370	12			38	484	15			24	0	1			0	0	0	0	54		
Major Street Volume:											922											
Minor Approach Volume:											54											
Minor Approach Volume Threshold:											313											

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1
Initial Vol:	319	117	62	102	222	6	2	28	455	80	60	61
Major Street Volume:							828					
Minor Approach Volume:							485					
Minor Approach Volume Threshold:							350					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	1		0	0	0		0	677	2		0	1681	0	
ApproachDel:	10.7				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=1]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=2361]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	1		0	0	0		0	677	2		0	1681	0	
Major Street Volume:													2360			
Minor Approach Volume:													1			
Minor Approach Volume Threshold:	-11 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

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Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		2	0	0		0	23	0		0	14	4	
ApproachDel:	xxxxxx				8.7				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=43]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		2	0	0		0	23	0		0	14	4	
Major Street Volume:													41			
Minor Approach Volume:													2			
Minor Approach Volume Threshold:	1071															

SIGNAL WARRANT DISCLAIMER

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Scenario Report

Scenario: Default Scenario  
Command: Default Command  
Volume: Default Volume  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

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Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 2 Francisco Drive @ Cambria Way	No / No	??? / ???
# 3 Francisco Drive @ El Dorado Hills B	Yes	???
# 4 Green Valley Road @ Project Access	No / No	??? / ???
# 5 Cambria Way @ Project Access Drivew	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

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Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	1	0	1	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	6	588		15		57	567		20		18	2		11		18	1		91	
ApproachDel:	xxxxxxx					xxxxxxx					46.3					25.1				

Approach[eastbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.4]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=31]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1394]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.8]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=110]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4][total volume=1394]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #2 Francisco Drive @ Cambria Way

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1
Initial Vol:	6	588	15	57	567	20	18	2	11	18	1	91
Major Street Volume:							1253					
Minor Approach Volume:							110					
Minor Approach Volume Threshold:							207					

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #3 Francisco Drive @ El Dorado Hills Boulevard

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	R	L	T	R	L	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	501	188		5		27	87		49		38	76		482		4	59		40	
Major Street Volume:											857									
Minor Approach Volume:											596									
Minor Approach Volume Threshold:											338									

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

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Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	0
Initial Vol:	0	0	2		0	0	0		0	1814	2		0	1233	0	
ApproachDel:	19.5				xxxxxxx				xxxxxxx				xxxxxxx			

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=2]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=3051]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #4 Green Valley Road @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	0	0
Initial Vol:	0	0	0	0	2	0	0	0	0	0	0	1814	0	0	2	0	1233	0	0	0
Major Street Volume:					3049															
Minor Approach Volume:					2															
Minor Approach Volume Threshold:	-99 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

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Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		6	0	0		0	25	0		0	23	4	
ApproachDel:	xxxxxx				8.8				xxxxxx				xxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=6]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=58]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #5 Cambria Way @ Project Access Driveway

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1
Initial Vol:	0	0	0		6	0	0		0	25	0		0	23	4	
Major Street Volume:													52			
Minor Approach Volume:													6			
Minor Approach Volume Threshold:	1008															

SIGNAL WARRANT DISCLAIMER

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