

## TECHNICAL MEMORANDUM

**To:** Mr. Jim Krause  
Non-Profit Ventures  
4007 Coogan Circle  
Culver City, CA 90232-3704

**From:** Mr. Jonathan Louie

**Date:** December 14, 2011

**Subject:** Supplemental Traffic Impact Study for Marymount College San Pedro Campus  
[KOA Job Number JBI 1045]

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### INTRODUCTION

KOA Corporation prepared a Traffic Impact Study dated October 25<sup>th</sup>, 2011 for the proposed Marymount College San Pedro Campus Project located at 1600 Palos Verdes Drive North in the City of Los Angeles. That traffic study analyzed project traffic impacts at 17 study intersections. The San Pedro Northwest Neighborhood Council (hereinafter referred to as 'Neighborhood Council') has reviewed the traffic study for this project and has requested a supplemental analysis be prepared that evaluates traffic impacts at additional study intersections located to the south of the project site. In particular, the Neighborhood Council noted that eight additional signalized intersections located along Western Avenue and Gaffey Street should be analyzed for the weekday mid-afternoon and p.m. peak periods. KOA has prepared this technical memorandum summarizing the results and findings of the traffic impacts associated with the project at the eight additional intersections.

### PROJECT DESCRIPTION

Marymount College is proposing to construct a sustainable private expanded undergraduate/graduate campus at the San Pedro Campus site. The proposed campus would accommodate 1,500 students, 800 of whom would be residents living on campus including eight (8) faculty apartments. The project site currently has 86 dwelling units that serve as off-campus housing for students matriculating at the Marymount College Rancho Palos Verdes (RPV) campus.

The San Pedro Campus will be a multi-phased project with a build out conditioned upon updated traffic studies to coincide with major phases of the build out. For the purpose of analyzing traffic impacts for this project, a 20-year build out horizon (Year 2031) is assumed.

### SUPPLEMENTAL STUDY INTERSECTIONS

The intersections included as part of this supplemental analysis are:

1. Green Hills Drive and Western Avenue
2. Avenida Aprenda and Western Avenue

3. Westmont Drive/Delasonde Drive and Western Avenue
4. Toscanini Drive and Western Avenue
5. Caddington Drive and Western Avenue
6. Westmont Drive and Gaffey Street
7. Capitol Drive and Gaffey Street
8. Channel Street and Gaffey Street

The study intersections located on Western Avenue (#1 through #5) are located in the City of Rancho Palos Verdes. Intersections #6 through #8 are located in the City of Los Angeles.

## **ANALYSIS METHODOLOGY**

The traffic impact analysis at the eight intersections was conducted for the following scenarios:

- Existing 2011
- Existing Plus Project
- Future 2031 Without Project
- Future 2031 With Project

The analysis methodology that was used in the original project traffic study was also used to analyze the eight study intersections. The Critical Movement Analysis (CMA) methodology was used to analyze intersections located in the City of Los Angeles. The intersections located in the City of Rancho Palos Verdes were analyzed using the Intersection Capacity Utilization (ICU) methodology.

According to LADOT, the three study intersections located within the City of Los Angeles are currently operating with ATSAC/ATCS. As such, a 0.10 reduction in volume-to-capacity ratio was assumed at these locations per LADOT traffic study policies and procedures.

## **EXISTING CONDITIONS**

KOA conducted traffic counts at the study intersections on Tuesday, November 15<sup>th</sup>, 2011. The traffic counts were collected from 2:00 p.m. to 4:00 p.m. (mid-afternoon peak period) and from 4:00 p.m. to 6:00 p.m. The intersection traffic count sheets are included in Attachment A. The counts were utilized to determine existing mid-afternoon and p.m. peak-hour traffic conditions. The existing intersection turn volumes are shown in Figure 1 for the mid-afternoon peak hour and in Figure 2 for the p.m. peak hour.

In addition, KOA conducted fieldwork at each of the study intersections to identify their roadway characteristics including traffic control, approach lane configuration, parking restrictions and bus stop locations. The existing intersection lane configurations are shown in Attachment B.

The existing level of service conditions were calculated based on the traffic count levels and intersection geometrics and signal phasing characteristics. The level of service calculation worksheets are in Attachment E. As shown in Table I, the study intersections are currently operating at LOS D or better during both the mid-afternoon and p.m. peak hours, except for the intersection of Western Avenue and Caddington Drive which is currently operating at LOS E during the p.m. peak hour.

**Table 1 – Existing Intersection Level of Service**

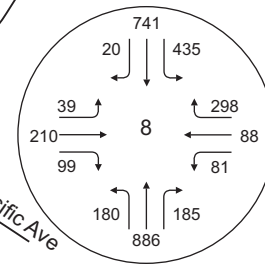
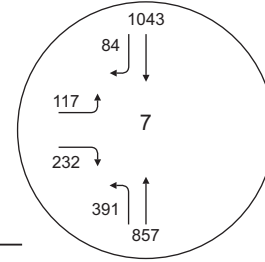
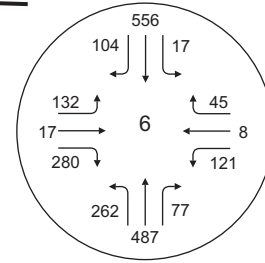
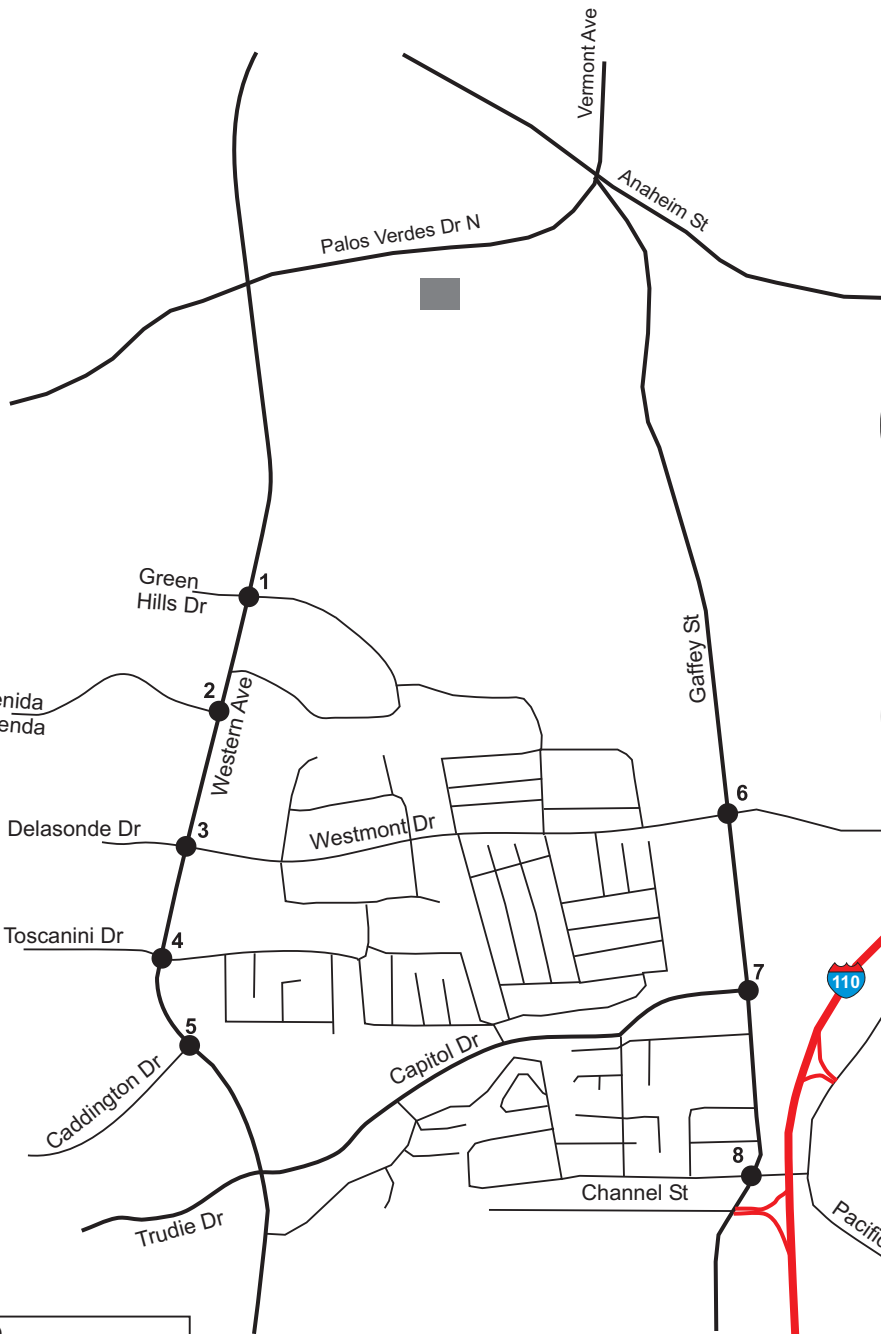
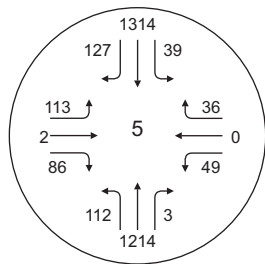
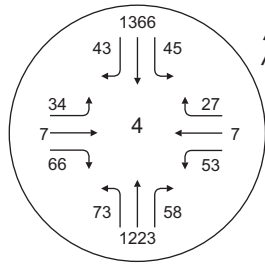
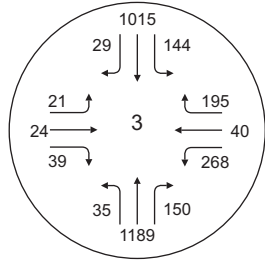
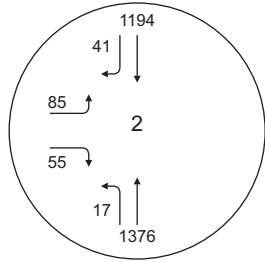
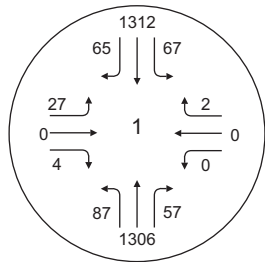
Study Intersections		City	Existing (2011)			
			Midday Afternoon Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1	Western Ave & Green Hills Dr	Rancho Palos Verdes	0.602	B	0.667	B
2	Western Ave & Avenida Aprenda	Rancho Palos Verdes	0.617	B	0.711	C
3	Western Ave & Delasonde Dr/Westmont Dr	Rancho Palos Verdes	0.828	D	0.843	D
4	Western Ave & Toscanini Dr	Rancho Palos Verdes	0.686	B	0.757	C
5	Western Ave & Caddington Dr	Rancho Palos Verdes	0.777	C	0.907	E
6	Gaffey St & Westmont Dr	Los Angeles	0.486	A	0.703	C
7	Gaffey St & Capitol Dr	Los Angeles	0.529	A	0.678	B
8	Gaffey St & Channel St	Los Angeles	0.509	A	0.661	B

## PROJECT TRAFFIC




### Project Trip Generation

The project's trip generation for the p.m. peak hour is discussed in detail in the October 25<sup>th</sup>, 2011 traffic study that was prepared for this project. Similar to the p.m. peak hour, the project trip generation for the mid-afternoon peak hour was also based on empirical trip rates derived from surveys conducted at the Marymount College RPV Campus and at the existing Palos Verdes Drive North residential facility site (proposed San Pedro Campus site), as well as trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation, 8th Edition* book. In addition, trip generation reductions were applied to take into account trip discounts due to students living on campus and other trip reducing measures that will be implemented by the project. Table 2 shows the trip generation rates that were utilized, and the trip generation for the project. The empirical trip rates and trip generation discounts are discussed in the footnotes at the bottom of Table 2.

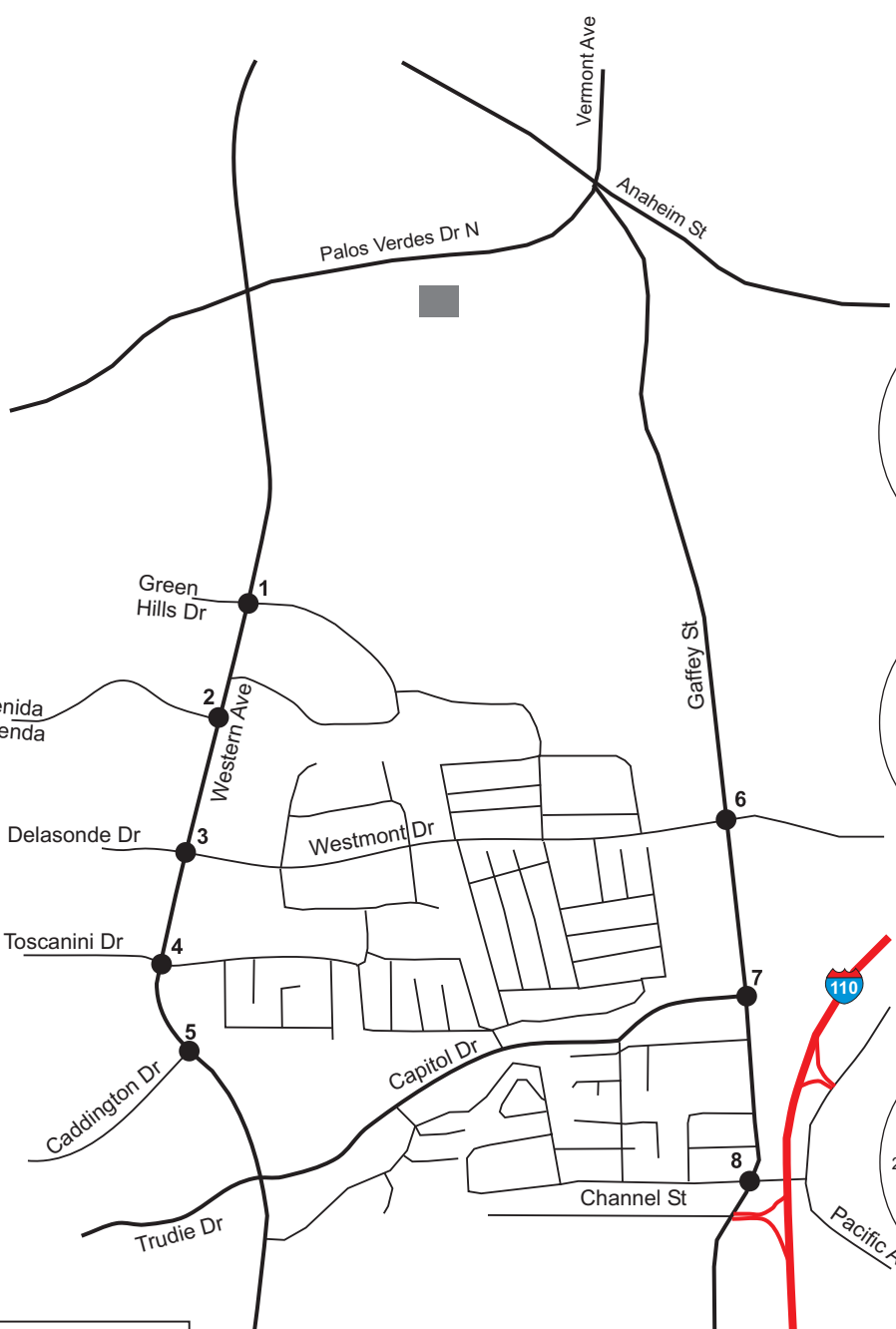
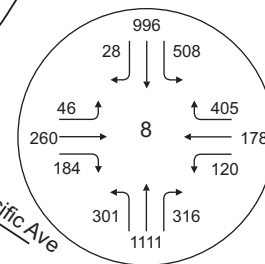
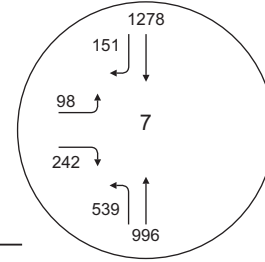
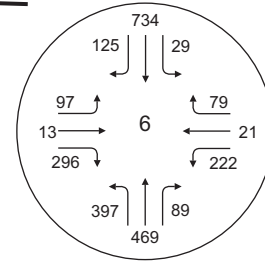
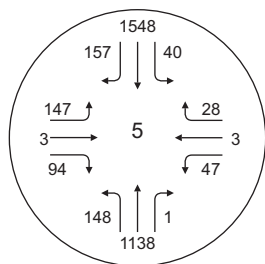
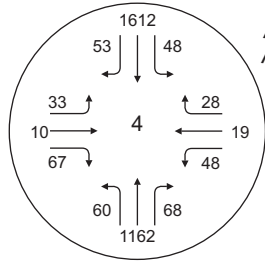
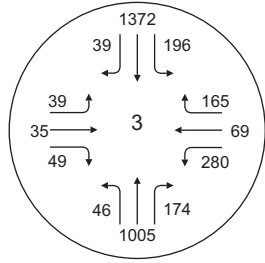
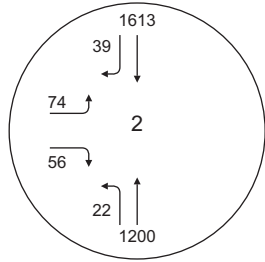
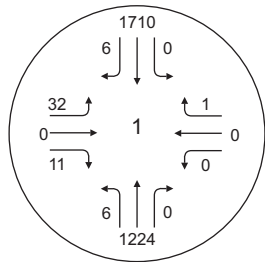
As shown in Table 2, the project upon build out is estimated to generate about 244 mid-afternoon peak hour trips (118 inbound trips and 126 outbound trips) and 279 p.m. peak hour trips (99 inbound trips and 180 outbound trips). The project site currently generates about 41 trips (21 inbound trips and 20 outbound trips) during the mid-afternoon peak hour and 48 trips (25 inbound trips and 23 outbound trips) during the p.m. peak hour. The project would generate an increase of 203 net trips (97 inbound trips and 106 outbound trips) during the mid-afternoon peak hour, and 231 net trips (74 inbound trips and 157 outbound trips) during the p.m. peak-hour.



**LEGEND**

-  Project Location
-  Study Intersections
-  Intersection Turn Volume





**LEGEND**

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**Table 2 - Project Trip Generation**

Land Use	Intensity	Unit	Peak Hours					
			Mid-Afternoon Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
<b>Trip Rates</b>								
College [1]	-	Student	0.22	47%	53%	0.24	25%	75%
Off-Campus Housing [2]	-	Student	0.29	51%	49%	0.35	52%	48%
Apartment [3]	-	DU	0.62	65%	35%	0.62	65%	35%
<b>Trip Generation</b>								
<b>Proposed Project</b>								
College	1,500	Student	330	155	175	360	90	270
Internal Trip Reduction [4]	53%		<u>-176</u>	<u>-83</u>	<u>-93</u>	<u>-192</u>	<u>-48</u>	<u>-144</u>
Subtotal			154	72	82	168	42	126
Resident Student Trip Reduction (75% AM) [5]			0	0	0	0	0	0
<b>Total Non-Residential College Trips</b>			<b>154</b>	<b>72</b>	<b>82</b>	<b>168</b>	<b>42</b>	<b>126</b>
Residence Halls for Students	800	Student	232	118	114	280	146	134
'Limited Cars for Residents' Trip Reduction (56%) [6]			<u>-130</u>	<u>-66</u>	<u>-64</u>	<u>-157</u>	<u>-82</u>	<u>-75</u>
Subtotal			102	52	50	123	64	59
Internal Trip Reduction (64% Mid-afternoon, 62% PM) [7][8]			<u>-65</u>	<u>-33</u>	<u>-32</u>	<u>-76</u>	<u>-40</u>	<u>-36</u>
<b>Total Non-RPV Campus Trips</b>			<b>37</b>	<b>19</b>	<b>18</b>	<b>47</b>	<b>24</b>	<b>23</b>
Trips to/from RPV Campus [9]	400	Student	116	59	57	140	73	67
'Limited Cars for Residents' Trip Reduction (56%) [6]			<u>-65</u>	<u>-33</u>	<u>-32</u>	<u>-78</u>	<u>-41</u>	<u>-37</u>
<b>Total Trips to/from RPV Campus</b>			<b>51</b>	<b>26</b>	<b>25</b>	<b>62</b>	<b>32</b>	<b>30</b>
Faculty Apartments	8	DU	5	3	2	5	3	2
Internal Trip Reduction (64% Mid-afternoon, 62% PM) [7]			<u>-3</u>	<u>-2</u>	<u>-1</u>	<u>-3</u>	<u>-2</u>	<u>-1</u>
<b>Total Faculty Apartment Trips</b>			<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>
<b>Total Trip Generation (Proposed Project Uses)</b>			<b>244</b>	<b>118</b>	<b>126</b>	<b>279</b>	<b>99</b>	<b>180</b>
<b>Existing Uses</b>								
Housing Facility [10]	86	DU	41	21	20	48	25	23
<b>Net Total Trip Generation</b>			<b>203</b>	<b>97</b>	<b>106</b>	<b>231</b>	<b>74</b>	<b>157</b>

- [1] Trip generation rates are based on trip surveys conducted at the Marymount College RPV Campus on March 22 and 30, 2011.
- [2] The mid-afternoon and PM peak hour trip rates are based on trip generation surveys conducted at the Palos Verdes Drive North residential facility on November 15 and March 24, 2011, respectively.
- [3] Trip generation rates are from ITE Trip Generation, 8th Edition.
- [4] Based on percentage of students who will be living on the San Pedro Campus (800 resident students/1,500 total students).
- [5] Marymount College would schedule the morning peak period classes on the San Pedro Campus exclusively for resident students. A trip reduction of 75% is assumed for the AM peak hour as commuter students are not expected to generate vehicle trips during this period. Resident student trip reduction is not assumed for the mid-afternoon and PM peak hour periods.
- [6] About 44% of the 800 San Pedro Campus residents would have a vehicle on campus based on a limited lottery system. The remaining 56% of residents would not have a vehicle on campus and therefore would not generate vehicle trips.
- [7] Based on internal trip capture empirical rates for the apartment dormitory component per the Marymount College Facilities Expansion Project Traffic Impact Analysis, RBF Consulting, July 31, 2007. The empirical data showed that 64% of the vehicles during the mid-afternoon peak and 62% of the vehicles during the PM peak are traveling to/from the RPV campus.
- [8] The internal trip reduction for the PM was assumed for daily.
- [9] Based on information provided by Marymount College representative, about 400 of the 800 residents would take classes at the Marymount College RPV Campus on a typical weekday.
- [10] The mid-afternoon and PM peak hour trips are based on raw trip generation survey data conducted at the Palos Verdes Drive North Facility on November 15 and March 24, 2011, respectively.

Project Trip Distribution and Assignment

Trip distribution is the process of assigning the directions from which traffic will access a project site. Trip distribution is dependent upon the land use characteristics of the project and the general locations of other land uses to which project trips would originate or terminate. The project trip distribution was developed based on our knowledge of development trends in the area, local and sub-regional traffic routes, regional traffic flows, and license plate survey data. In addition, the project trip distribution was based on existing student and faculty/staff zip code information that was provided by Marymount College. Two trip distribution patterns were determined. The first distribution is for trips generated by the project but excludes those trips generated by resident students going to/from the RPV Campus. The second distribution is for trips generated by the resident students traveling to/from the RPV Campus. The trip distribution assumptions that were used in the October 25<sup>th</sup>, 2011 traffic study was also used for the analysis of the eight study intersections.

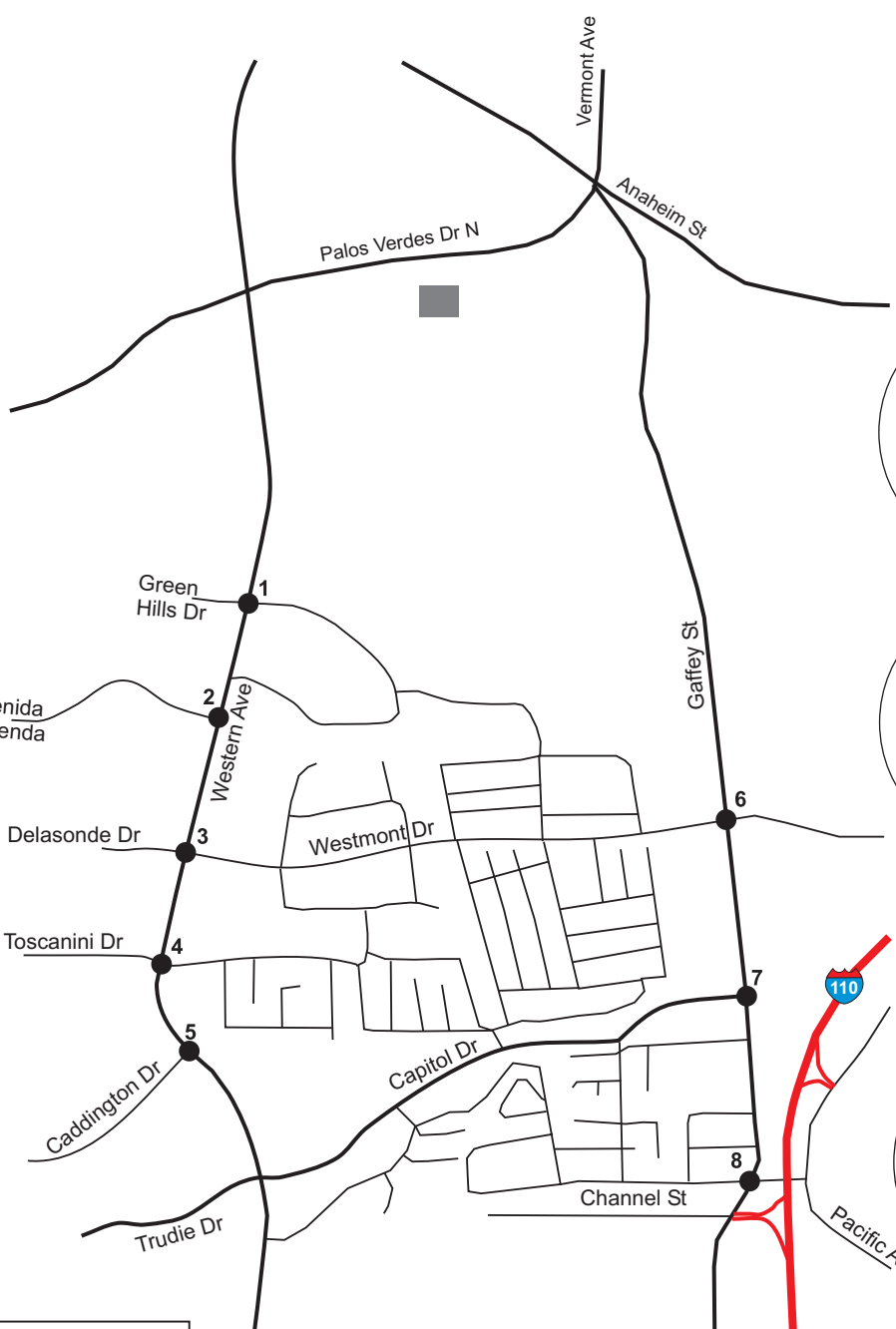
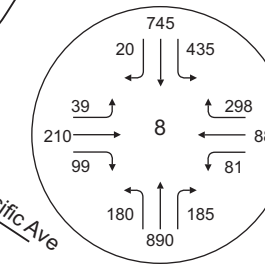
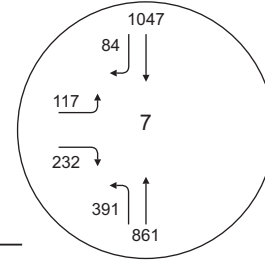
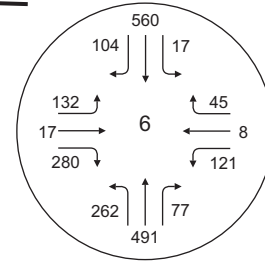
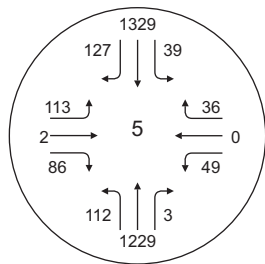
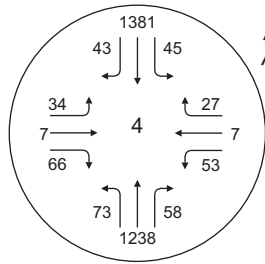
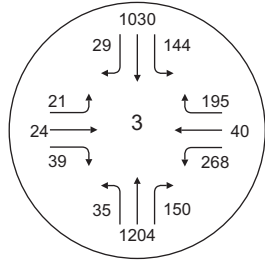
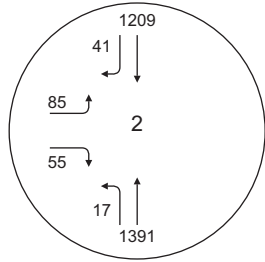
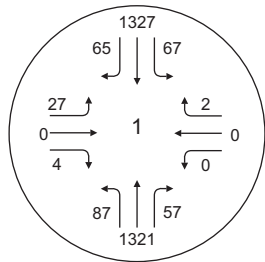
The project trips were assigned based on the trip distributions that were determined for the project. Attachment C illustrates the net project trips for the weekday mid-afternoon and p.m. peak hours.

**EXISTING PLUS PROJECT TRAFFIC CONDITIONS**




The estimated net project trips shown in Attachment C were superimposed onto the existing traffic volumes to estimate the existing plus project traffic volumes. Figures 3 and 4 show the existing plus project traffic volumes for the mid-afternoon and p.m. peak hours, respectively. The existing plus project level of service analysis results are summarized in Table 3. As shown in this table, the eight study intersections are projected to continue to operate at the same level of services during the mid-afternoon and p.m. peak hour periods as compared to the existing conditions. All of the study intersections are projected to operate at LOS D or better during both the mid-afternoon and p.m. peak hours, except for the intersection of Western Avenue and Caddington Drive which is projected to operate at LOS E during the p.m. peak hour. The level of service calculation worksheets are in Attachment E.

**Table 3 – Existing Plus Project Intersection Level of Service**

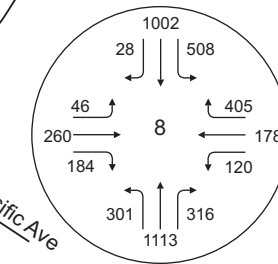
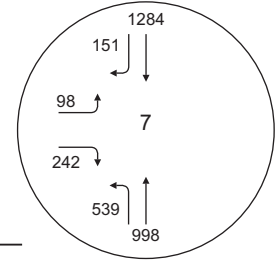
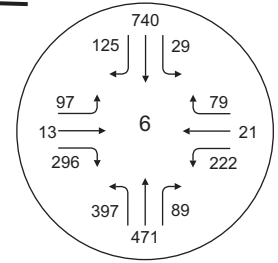
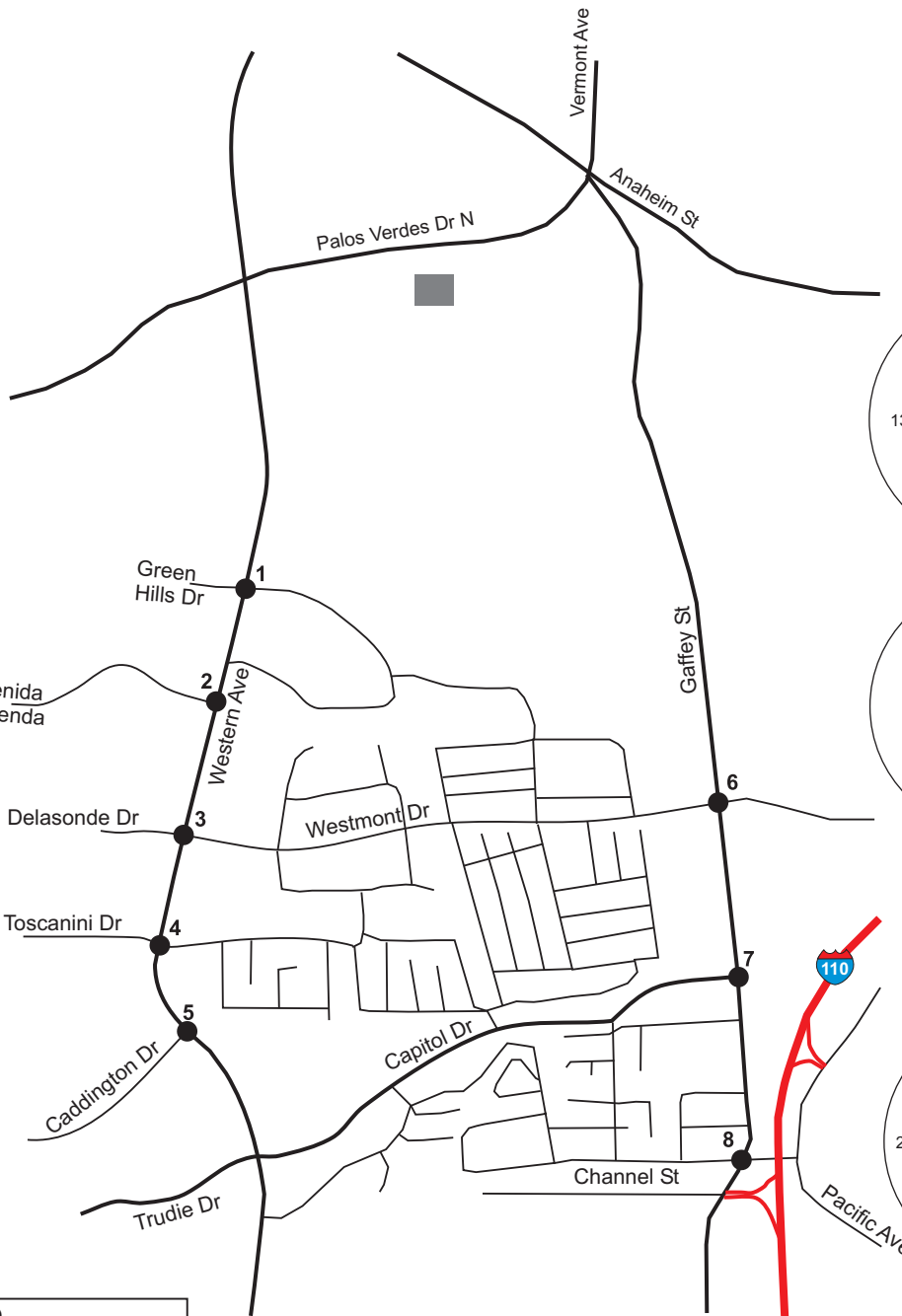
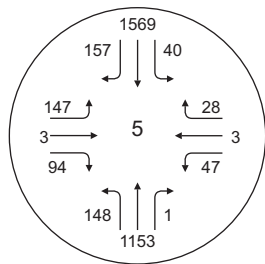
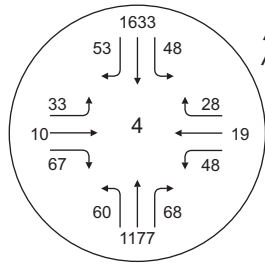
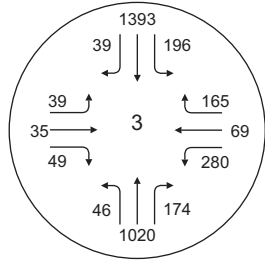
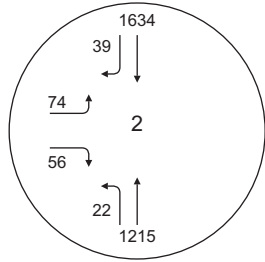
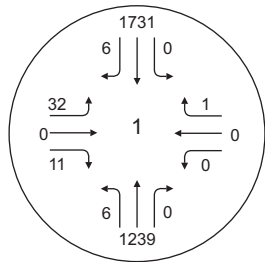
Study Intersections		City	Existing Plus Project			
			Midday Afternoon Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1	Western Ave & Green Hills Dr	Rancho Palos Verdes	0.606	B	0.673	B
2	Western Ave & Avenida Aprenda	Rancho Palos Verdes	0.622	B	0.718	C
3	Western Ave & Delasonde Dr/Westmont Dr	Rancho Palos Verdes	0.833	D	0.848	D
4	Western Ave & Toscanini Dr	Rancho Palos Verdes	0.691	B	0.763	C
5	Western Ave & Caddington Dr	Rancho Palos Verdes	0.781	C	0.914	E
6	Gaffey St & Westmont Dr	Los Angeles	0.488	A	0.705	C
7	Gaffey St & Capitol Dr	Los Angeles	0.530	A	0.680	B
8	Gaffey St & Channel St	Los Angeles	0.511	A	0.662	B






**LEGEND**

-  Project Location
-  Study Intersections
-  Intersection Turn Volume





**LEGEND**

-  Project Location
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## **FUTURE WITHOUT PROJECT TRAFFIC CONDITIONS**

### Ambient Growth

For the analysis of background traffic for year 2031, a traffic growth factor of 7.1% for the 20-year period was utilized to provide for increases in traffic from the existing traffic volumes. This growth rate is based on the 2010 Los Angeles County Congestion Management Program (CMP) traffic growth projections for the study area and was also used for the October 25<sup>th</sup>, 2011 traffic study.

### Area/Related Projects Growth

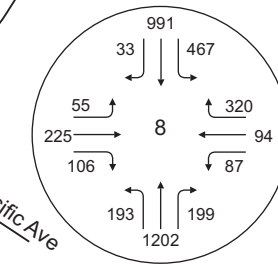
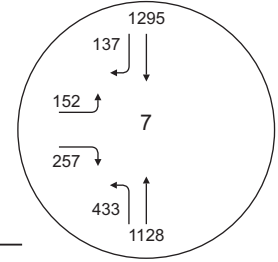
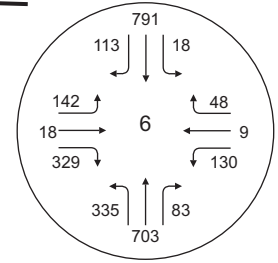
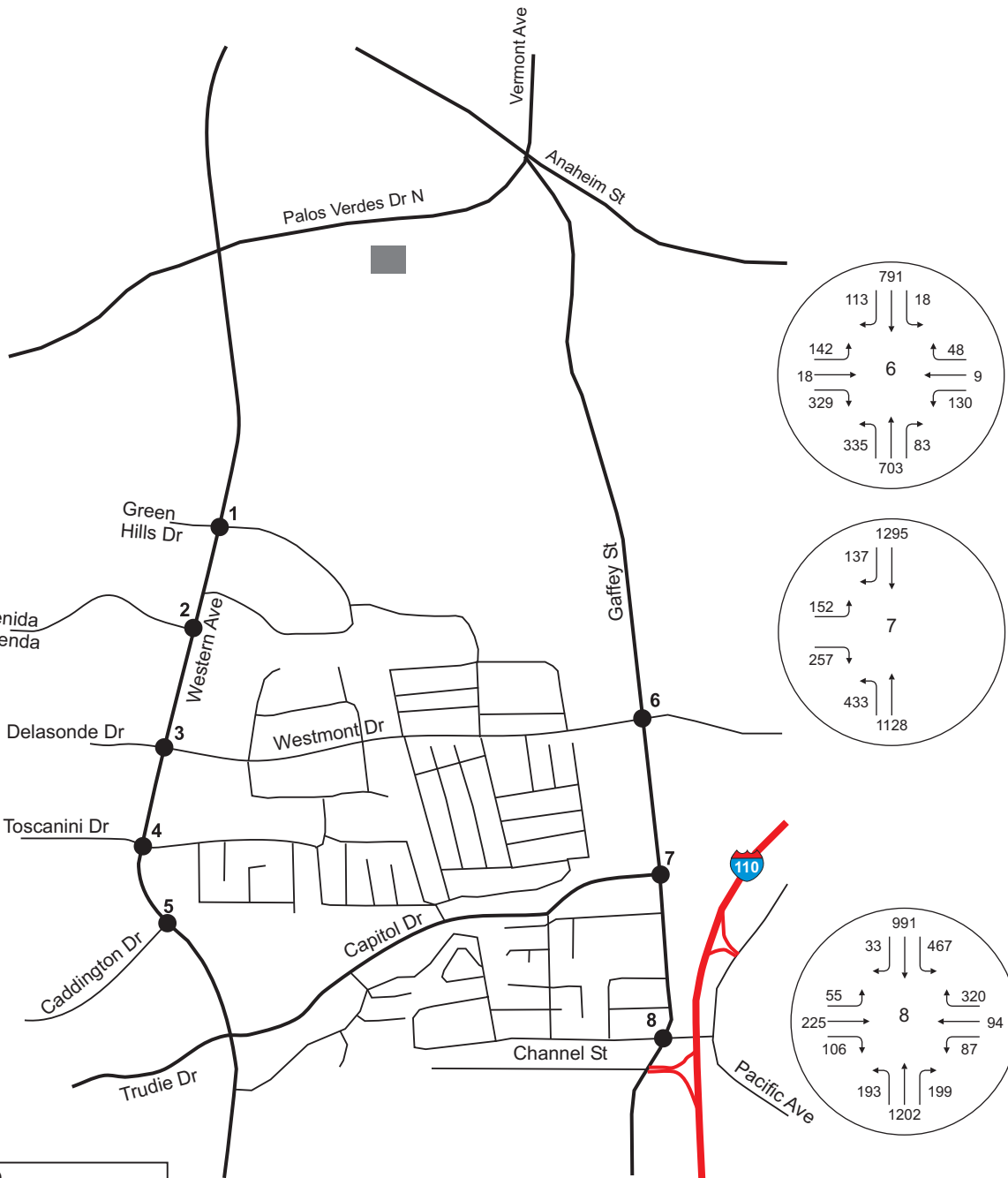
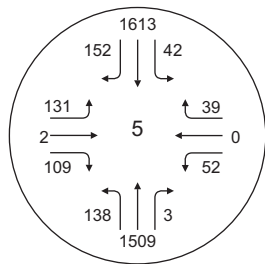
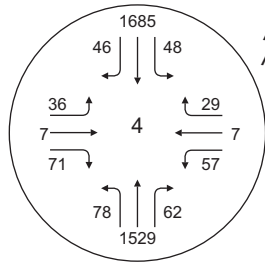
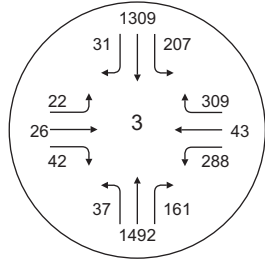
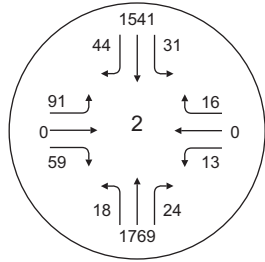
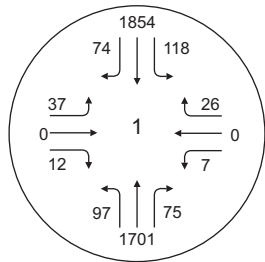
Based on discussions with staff from the cities of Los Angeles, Rancho Palos Verdes, Rolling Hills Estates and Lomita, 77 area/related projects were identified for this analysis. These area/related projects were considered to potentially contribute measurable traffic volumes to the study intersections during the future analysis periods. A description of the related projects and the trip generation of each are summarized in Attachment D.

It should be noted that the trip generation for the p.m. peak hour were obtained from LADOT and other traffic studies as well as based on trip generation rates from the ITE *Trip Generation* 8<sup>th</sup> Edition book. The trip generation for the mid-afternoon peak hour was not available from LADOT and other traffic studies. Also, the ITE *Trip Generation* book generally does not have trip rates for the mid-afternoon peak hour. Thus, the p.m. peak hour trip generation was assumed for the mid-afternoon peak hour, except for school projects in which the trip rate for the p.m. peak hour of generator from ITE *Trip Generation* was used. Attachment D illustrates the related project trip assignments at the study intersections during the mid-afternoon and p.m. peak hours.




### Future Without Project Conditions

The future without project traffic volumes were determined by applying an overall ambient growth factor of 7.1% to the existing peak hour volumes and adding the area/related project traffic. The future without project traffic volumes are shown in Figures 5 and 6 for the mid-afternoon and p.m. peak hour periods, respectively. The future without project level of service analysis was conducted for the study intersections using the traffic volumes shown in Figures 5 and 6. The results are summarized in Table 4 and the level of service calculation worksheets are contained in Attachment E.

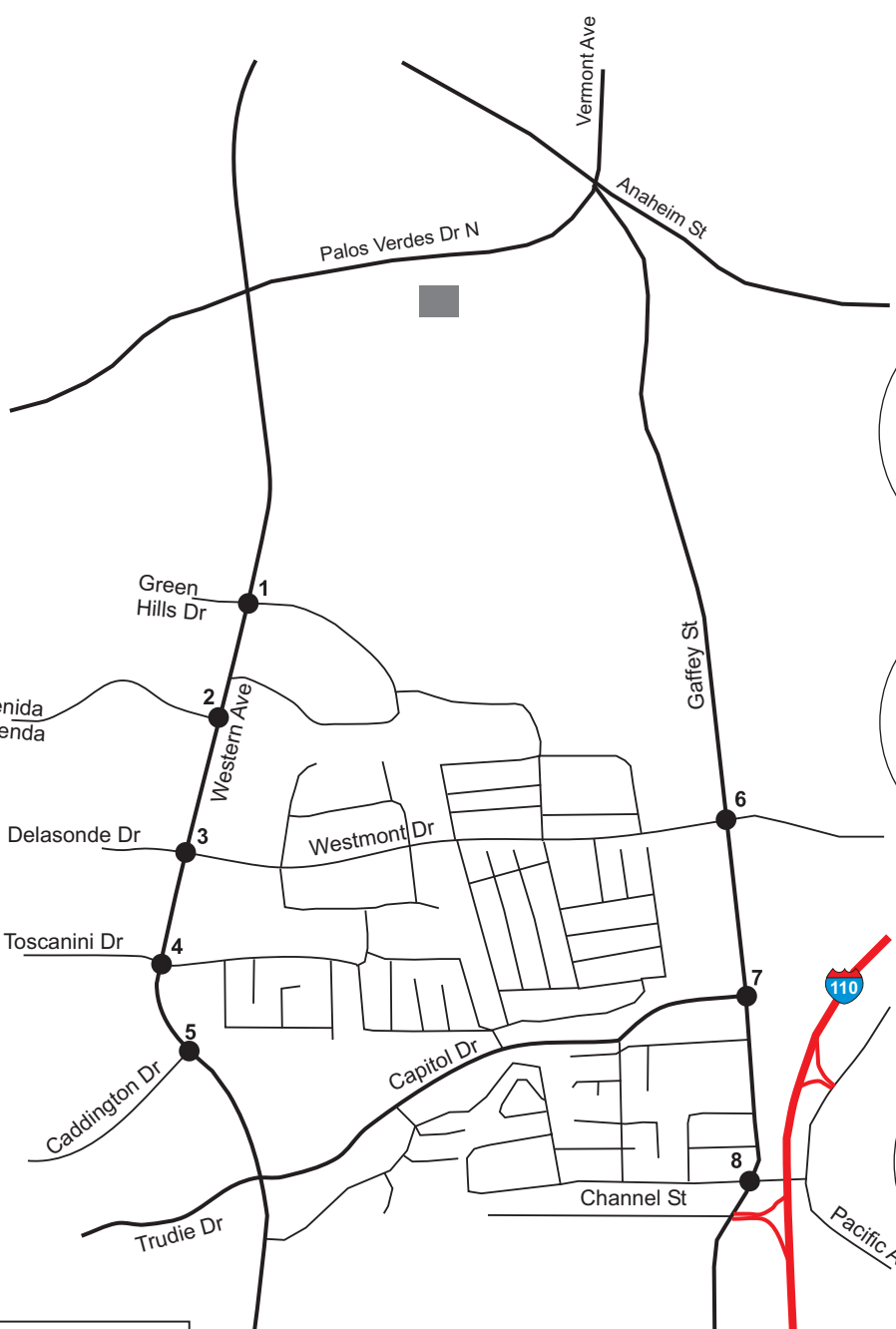
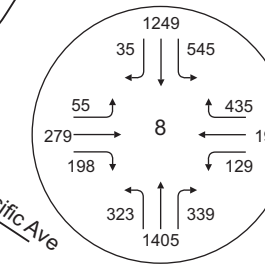
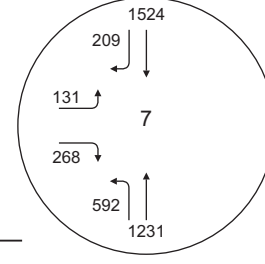
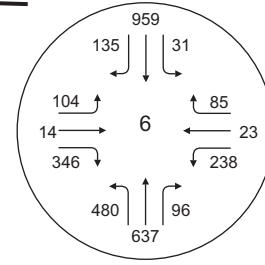
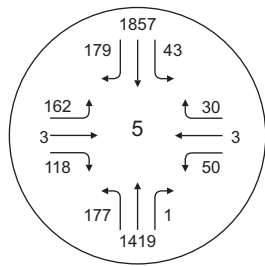
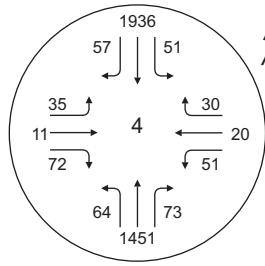
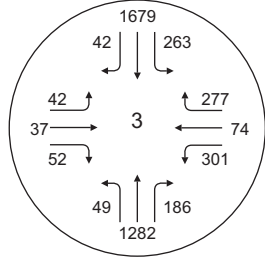
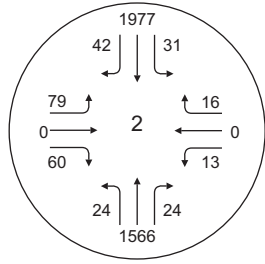
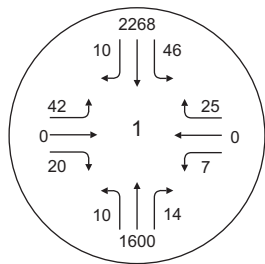
As shown in Table 4, the study intersections are projected to operate at LOS D or better during both the mid-afternoon and p.m. peak hours with the exception of the intersections of Western Avenue/Delasonde Drive/Westmont Drive and Western Avenue/Caddington Drive, which are projected to operate at LOS E or F during both study periods.



**LEGEND**

-  Project Location
-  Study Intersections
-  Intersection Turn Volume





**LEGEND**

- Project Location
- Study Intersections
- Intersection Turn Volume



**Table 4 – Future Without Project Intersection Level of Service**

Study Intersections	City	Analysis Methodology	Midday Afternoon Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1 Western Ave & Green Hills Dr	Rancho Palos Verdes	ICU	0.807	D	0.865	D
2 Western Ave & Avenida Aprenda	Rancho Palos Verdes	ICU	0.781	C	0.841	D
3 Western Ave & Delasonde Dr/Westmont Dr	Rancho Palos Verdes	ICU	0.982	E	0.994	E
4 Western Ave & Toscanini Dr	Rancho Palos Verdes	ICU	0.797	C	0.869	D
5 Western Ave & Caddington Dr	Rancho Palos Verdes	ICU	0.922	E	1.055	F
6 Gaffey St & Westmont Dr	Los Angeles	CMA	0.650	B	0.873	D
7 Gaffey St & Capitol Dr	Los Angeles	CMA	0.676	B	0.829	D
8 Gaffey St & Channel St	Los Angeles	CMA	0.642	B	0.793	C

Note:

ICU - Intersection Capacity Utilization Method, CMA - Critical Movement Analysis Method

**FUTURE WITH PROJECT TRAFFIC CONDITIONS**

The estimated project trips were superimposed onto the future without project traffic forecasts to estimate the future with project traffic volumes. Figures 7 and 8 show the future with project traffic volumes for the mid-afternoon and p.m. peak hours, respectively. The future with project level of service analysis results are summarized in Table 5. The level of service calculation worksheets are contained in Attachment E.

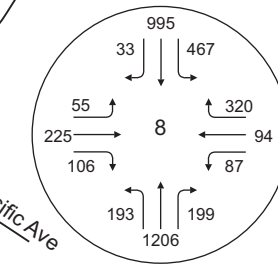
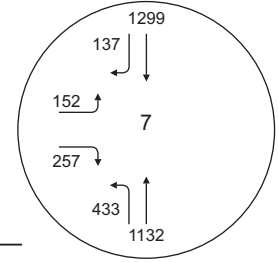
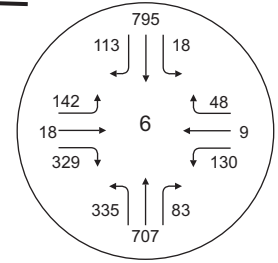
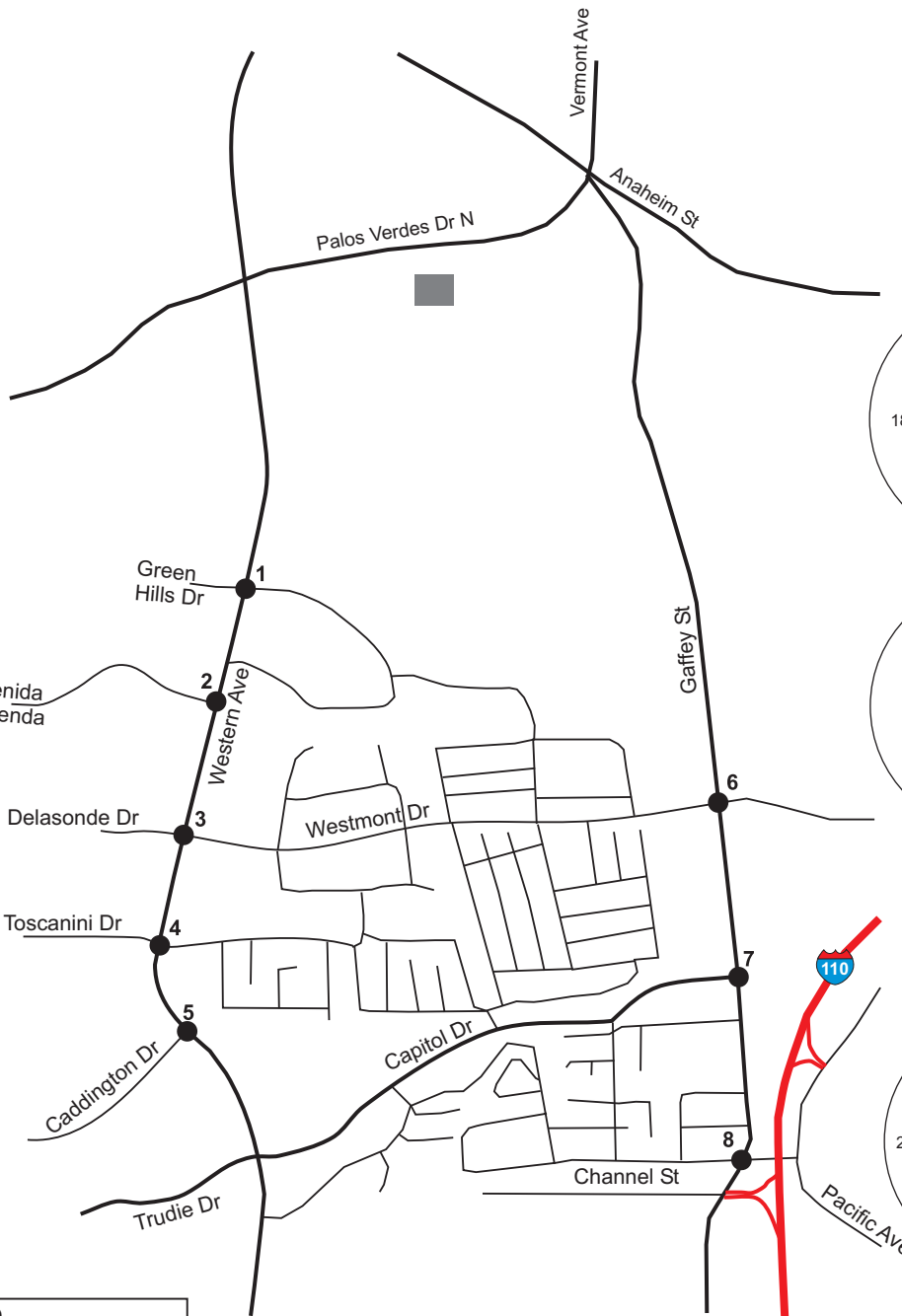
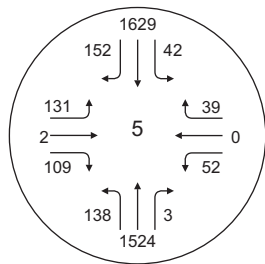
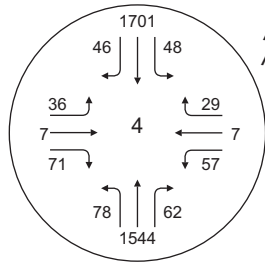
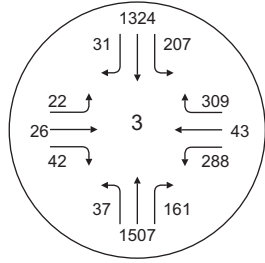
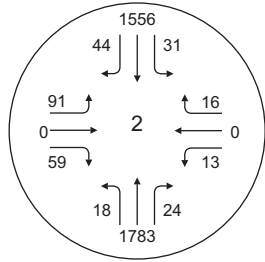
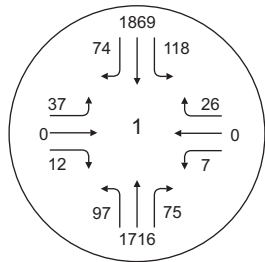
**Table 5 – Future With Project Intersection Level of Service**

Study Intersections	City	Analysis Methodology	Midday Afternoon Peak Hour		PM Peak Hour	
			V/C	LOS	V/C	LOS
1 Western Ave & Green Hills Dr	Rancho Palos Verdes	ICU	0.812	D	0.871	D
2 Western Ave & Avenida Aprenda	Rancho Palos Verdes	ICU	0.786	C	0.847	D
3 Western Ave & Delasonde Dr/Westmont Dr	Rancho Palos Verdes	ICU	0.987	E	0.998	E
4 Western Ave & Toscanini Dr	Rancho Palos Verdes	ICU	0.802	D	0.875	D
5 Western Ave & Caddington Dr	Rancho Palos Verdes	ICU	0.927	E	1.062	F
6 Gaffey St & Westmont Dr	Los Angeles	CMA	0.651	B	0.875	D
7 Gaffey St & Capitol Dr	Los Angeles	CMA	0.678	B	0.831	D
8 Gaffey St & Channel St	Los Angeles	CMA	0.644	B	0.793	C




Note:

ICU - Intersection Capacity Utilization Method, CMA - Critical Movement Analysis Method

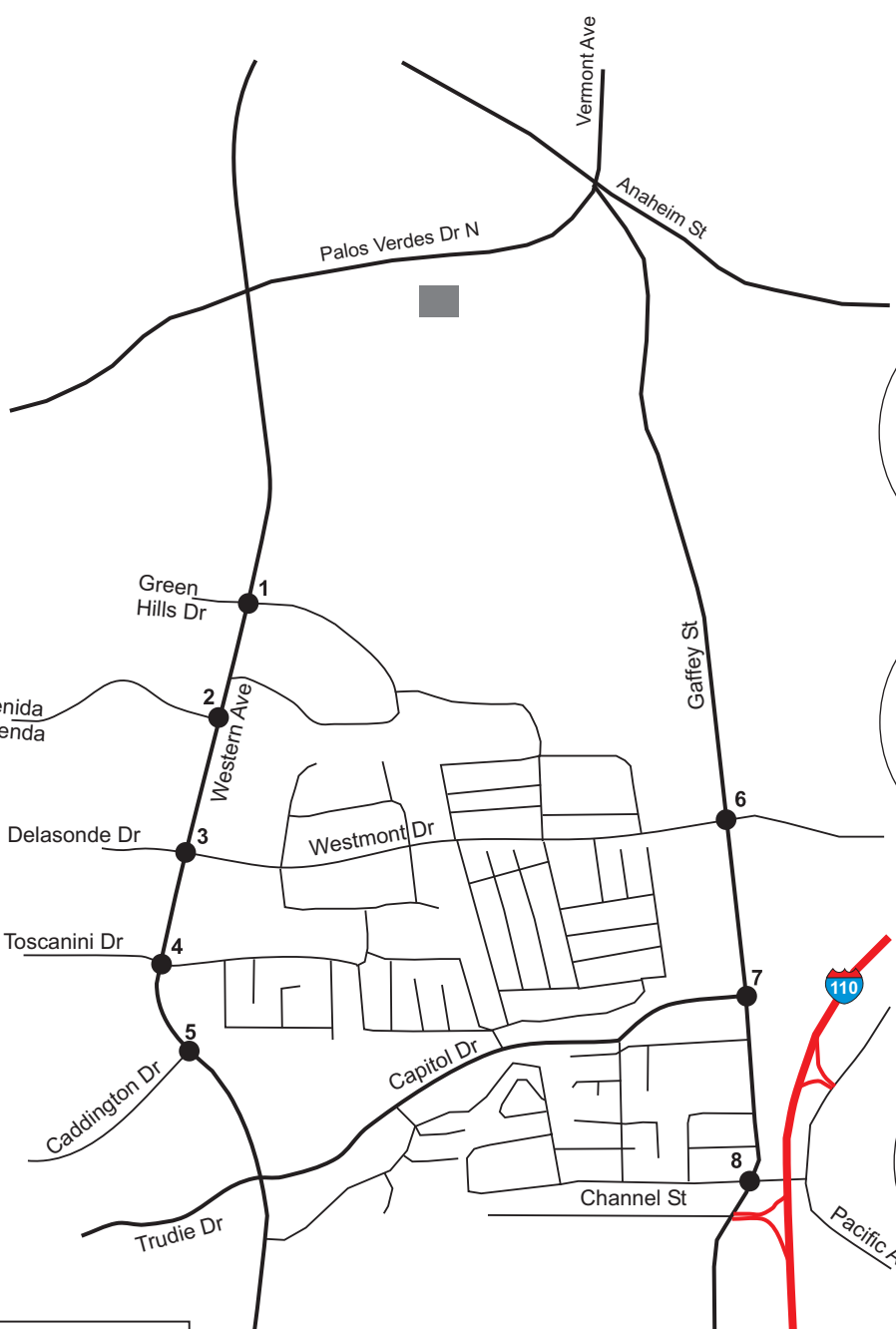
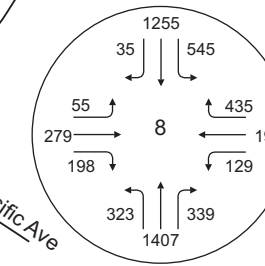
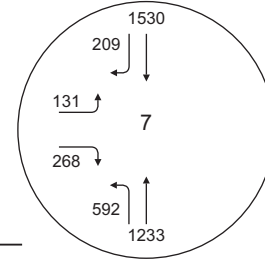
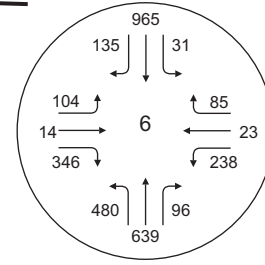
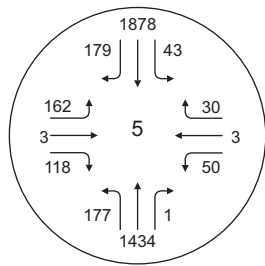
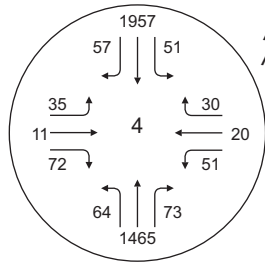
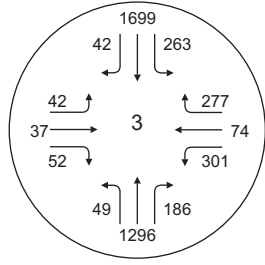
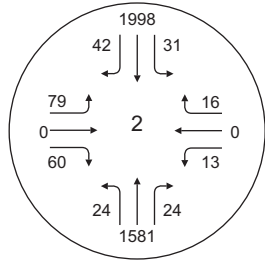
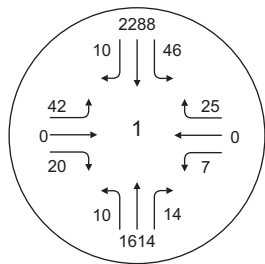
As shown in Table 5, the study intersections are projected to operate at LOS D or better during both study periods with the exception of the intersections of Western Avenue/Delasonde Drive/Westmont Drive and Western Avenue/Caddington Drive, which are projected to operate at LOS E or F during both study periods.



**LEGEND**

-  Project Location
-  Study Intersections
-  Intersection Turn Volume





**LEGEND**

- Project Location
- Study Intersections
- Intersection Turn Volume



## PROJECT TRAFFIC IMPACT

### City of Los Angeles Significant Impact Criteria

LADOT has established specific thresholds for project traffic-related increases in the volume-to-capacity ratio (V/C) of a study intersection. The following increases in the peak-hour V/C ratio are considered “significant” impacts:

Level of Service	Final V/C*	Project Related V/C Increase
C	< 0.700 – 0.800	Equal to or greater than 0.040
D	< 0.800– 0.900	Equal to or greater than 0.020
E and F	0.901 or more	Equal to or greater than 0.010

*\* Final V/C is the V/C ratio at an intersection, considering impacts from the project, ambient growth and related projects growth, and without proposed traffic impact mitigations.*

### City of Rancho Palos Verdes

The County of Los Angeles thresholds of significance criteria was used to determine the project related traffic impact for the signalized study intersections in the City of Rancho Palos Verdes. The following increases in peak-hour V/C ratios are considered “significant” impacts:

Level of Service	Pre-Project V/C	Project Related V/C Increase
C	< 0.700 – 0.800	Equal to or greater than 0.040
D	< 0.800– 0.900	Equal to or greater than 0.020
E and F	0.901 or more	Equal to or greater than 0.010

Based on the results of the analysis and the established significant threshold criteria, the proposed project would not create a significant traffic impact at any of the eight study intersections under the ‘Existing Plus Project’ and ‘Future With Project’ scenarios, as summarized in Tables 6 and 7.

**Table 6 - Intersection Level of Service Summary – Existing Plus Project**

Study Intersections	City	Analysis Methodology	Existing (2011)				Existing Plus Project				Change in V/C		Significant Impact ?
			Midday Afternoon Peak Hour		PM Peak Hour		Midday Afternoon Peak Hour		PM Peak Hour		Mid-Afternoon Peak Hour	PM Peak Hour	
			V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS			
1 Western Ave & Green Hills Dr	Rancho Palos Verdes	ICU	0.602	B	0.667	B	0.606	B	0.673	B	0.004	0.006	No
2 Western Ave & Avenida Aprenda	Rancho Palos Verdes	ICU	0.617	B	0.711	C	0.622	B	0.718	C	0.005	0.007	No
3 Western Ave & Delasonde Dr/Westmont Dr	Rancho Palos Verdes	ICU	0.828	D	0.843	D	0.833	D	0.848	D	0.005	0.005	No
4 Western Ave & Toscanini Dr	Rancho Palos Verdes	ICU	0.686	B	0.757	C	0.691	B	0.763	C	0.005	0.006	No
5 Western Ave & Caddington Dr	Rancho Palos Verdes	ICU	0.777	C	0.907	E	0.781	C	0.914	E	0.004	0.007	No
6 Gaffey St & Westmont Dr	Los Angeles	CMA	0.486	A	0.703	C	0.488	A	0.705	C	0.002	0.002	No
7 Gaffey St & Capitol Dr	Los Angeles	CMA	0.529	A	0.678	B	0.530	A	0.680	B	0.001	0.002	No
8 Gaffey St & Channel St	Los Angeles	CMA	0.509	A	0.661	B	0.511	A	0.662	B	0.002	0.001	No

Note:

ICU - Intersection Capacity Utilization Method; CMA - Critical Movement Analysis Method

**Table 7 - Intersection Level of Service Summary – Future With Project**

Study Intersections	City	Analysis Methodology	Future Without Project				Future With Project				Change in V/C		Significant Impact ?
			Midday Afternoon Peak Hour		PM Peak Hour		Midday Afternoon Peak Hour		PM Peak Hour		MD Aft Peak Hour	PM Peak Hour	
			V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS			
1 Western Ave & Green Hills Dr	Rancho Palos Verdes	ICU	0.807	D	0.865	D	0.812	D	0.871	D	0.005	0.006	No
2 Western Ave & Avenida Aprenda	Rancho Palos Verdes	ICU	0.781	C	0.841	D	0.786	C	0.847	D	0.005	0.006	No
3 Western Ave & Delasonde Dr/Westmont Dr	Rancho Palos Verdes	ICU	0.982	E	0.994	E	0.987	E	0.998	E	0.005	0.004	No
4 Western Ave & Toscanini Dr	Rancho Palos Verdes	ICU	0.797	C	0.869	D	0.802	D	0.875	D	0.005	0.006	No
5 Western Ave & Caddington Dr	Rancho Palos Verdes	ICU	0.922	E	1.055	F	0.927	E	1.062	F	0.005	0.007	No
6 Gaffey St & Westmont Dr	Los Angeles	CMA	0.650	B	0.873	D	0.651	B	0.875	D	0.001	0.002	No
7 Gaffey St & Capitol Dr	Los Angeles	CMA	0.676	B	0.829	D	0.678	B	0.831	D	0.002	0.002	No
8 Gaffey St & Channel St	Los Angeles	CMA	0.642	B	0.793	C	0.644	B	0.793	C	0.002	0.000	No

Note:

ICU - Intersection Capacity Utilization Method, CMA - Critical Movement Analysis Method

## **SUMMARY AND CONCLUSIONS**

- For existing conditions, all of the study intersections are operating at LOS D or better during both the weekday mid-afternoon and p.m. peak hour periods with the exception of the intersection of Western Avenue and Caddington Drive which is operating at LOS E during the p.m. peak hour.
- The proposed project is estimated to generate about 203 net trips (97 inbound trips and 106 outbound trips) during the mid-afternoon peak hour and 231 net trips (74 inbound trips and 157 outbound trips) during the p.m. peak-hour.
- For the Existing Plus Project conditions, all of the study intersections are also projected to operate at LOS D or better during both the weekday mid-afternoon and p.m. peak hour periods with the exception of the intersection of Western Avenue and Caddington Drive which is operating at LOS E during the p.m. peak hour.
- For the future (2031) conditions without and with development of the project, all of the study intersections are projected to operate at LOS D or better during both the mid-afternoon and p.m. peak hours with the exception of the intersections of Western Avenue/Delasonde Drive/Westmont Drive and Western Avenue/Caddington Drive, which are projected to operate at LOS E or F during both study periods.
- The proposed project would not result in a significant traffic impact at any of the eight study intersections.

**ATTACHMENT A**

**INTERSECTION TRAFFIC COUNT DATA**

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_005

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**NOON**

NS/EW Streets:	Western Ave			Western Ave			Green Hills Dr			Green Hills Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	0	1	0	0	1	0	
2:00 PM	6	330	12	12	339	11	4		1	0		0	715
2:15 PM	14	329	21	23	325	10	13		0	0		0	735
2:30 PM	28	350	20	20	290	27	1		1	0		2	739
2:45 PM	39	297	4	12	358	17	9		2	0		0	738
3:00 PM	17	264	0	4	295	10	3		1	0		1	595
3:15 PM	11	260	0	4	314	8	4		0	0		2	603
3:30 PM	5	299	0	0	328	7	9		1	2		0	651
3:45 PM	2	254	0	0	365	10	2		2	0		3	638
<b>TOTAL VOLUMES :</b>	122	2383	57	75	2614	100	45	0	8	2	0	8	5414
<b>APPROACH %'s :</b>	4.76%	93.01%	2.22%	2.69%	93.73%	3.59%	84.91%	0.00%	15.09%	20.00%	0.00%	80.00%	
<b>PEAK HR START TIME :</b>	200 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	87	1306	57	67	1312	65	27	0	4	0	0	2	2927
<b>PEAK HR FACTOR :</b>	0.911			0.933			0.596			0.250			0.990

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_005

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**PM**

NS/EW Streets:	Western Ave			Western Ave			Green Hills Dr			Green Hills Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	0	1	0	0	1	0	
4:00 PM	3	279	0	0	366	8	12		6	0		0	674
4:15 PM	5	249	0	0	381	5	19		19	0		1	679
4:30 PM	8	293	2	0	410	9	7		12	0		0	741
4:45 PM	1	288	0	0	431	5	20		6	0		1	752
5:00 PM	2	311	0	0	420	2	18		6	0		0	759
5:15 PM	2	310	0	0	405	3	8		3	0		0	731
5:30 PM	1	300	0	0	437	1	6		2	0		0	747
5:45 PM	1	303	0	0	448	0	0		0	0		1	753
<b>TOTAL VOLUMES :</b>	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	23	2333	2	0	3298	33	90	0	54	0	0	3	5836
<b>APPROACH %'s :</b>	0.98%	98.94%	0.08%	0.00%	99.01%	0.99%	62.50%	0.00%	37.50%	0.00%	0.00%	100.00%	
<b>PEAK HR START TIME :</b>	500 PM												TOTAL
<b>PEAK HR VOL :</b>	6	1224	0	0	1710	6	32	0	11	0	0	1	2990
<b>PEAK HR FACTOR :</b>	0.982			0.958			0.448			0.250			0.985

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA11\_5436\_004

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

NOON

NS/EW Streets:	Western Ave			Western Ave			Avenida Aprenda			Avenida Aprenda			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	1	0	0	0	0	
2:00 PM	6	313			313	12	31		16				691
2:15 PM	2	361			293	13	19		16				704
2:30 PM	7	382			270	9	16		12				696
2:45 PM	2	320			318	7	19		11				677
3:00 PM	4	291			313	9	24		13				654
3:15 PM	5	293			308	8	17		7				638
3:30 PM	3	287			329	7	18		11				655
3:45 PM	2	252			359	7	11		11				642
<b>TOTAL VOLUMES :</b>	31	2499	0	0	2503	72	155	0	97	0	0	0	5357
<b>APPROACH %'s :</b>	1.23%	98.77%	0.00%	0.00%	97.20%	2.80%	61.51%	0.00%	38.49%	#DIV/0!	#DIV/0!	#DIV/0!	
<b>PEAK HR START TIME :</b>	200 PM												TOTAL
<b>PEAK HR VOL :</b>	17	1376	0	0	1194	41	85	0	55	0	0	0	2768
<b>PEAK HR FACTOR :</b>	0.895			0.950			0.745			0.000			0.983

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_004

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**PM**

NS/EW Streets:	Western Ave		Western Ave			Avenida Aprenda			Avenida Aprenda			TOTAL	
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	1	0	0	0	0	
4:00 PM	3	262			351	5	10		11				642
4:15 PM	5	250			380	11	17		10				673
4:30 PM	6	275			407	12	12		14				726
4:45 PM	5	292			411	9	15		23				755
5:00 PM	6	308			399	14	20		16				763
5:15 PM	5	303			383	8	24		6				729
5:30 PM	6	297			420	8	15		11				757
5:45 PM	4	278			424	8	10		8				732
<b>TOTAL VOLUMES :</b>	40	2265	0	0	3175	75	123	0	99	0	0	0	5777
<b>APPROACH %'s :</b>	1.74%	98.26%	0.00%	0.00%	97.69%	2.31%	55.41%	0.00%	44.59%	#DIV/0!	#DIV/0!	#DIV/0!	
<b>PEAK HR START TIME :</b>	445 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	22	1200	0	0	1613	39	74	0	56	0	0	0	3004
<b>PEAK HR FACTOR :</b>	0.973			0.965			0.855			0.000			0.984

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA11\_5436\_003

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**NOON**

NS/EW Streets:	Western Ave			Western Ave			Westmont Dr/Delasonde Dr			Westmont Dr/Delasonde Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	1	0	1	1	1	
2:00 PM	10	281	46	34	273	9	3	9	14	58	10	36	783
2:15 PM	10	299	30	31	243	6	3	7	8	57	11	56	761
2:30 PM	7	317	36	37	226	8	9	6	10	80	11	62	809
2:45 PM	8	292	38	42	273	6	6	2	7	73	8	41	796
3:00 PM	7	258	34	30	282	9	4	6	5	67	14	36	752
3:15 PM	6	259	32	36	262	10	7	3	11	54	7	31	718
3:30 PM	15	274	41	45	292	7	8	8	9	57	16	38	810
3:45 PM	10	194	41	44	315	9	4	6	9	68	16	43	759
<b>TOTAL VOLUMES :</b>	73	2174	298	299	2166	64	44	47	73	514	93	343	6188
<b>APPROACH %'s :</b>	2.87%	85.42%	11.71%	11.82%	85.65%	2.53%	26.83%	28.66%	44.51%	54.11%	9.79%	36.11%	
<b>PEAK HR START TIME :</b>	200 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	35	1189	150	144	1015	29	21	24	39	268	40	195	3149
<b>PEAK HR FACTOR :</b>	0.954		0.925			0.808			0.822			0.973	

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_003

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**PM**

NS/EW Streets:	Western Ave			Western Ave			Westmont Dr/Delasonde Dr			Westmont Dr/Delasonde Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	1	2	0	0	1	0	1	1	1	
4:00 PM	10	224	49	47	304	5	14	7	8	60	16	36	780
4:15 PM	13	205	38	65	293	12	15	9	6	77	13	33	779
4:30 PM	12	277	39	47	360	13	11	15	11	64	16	33	898
4:45 PM	12	248	37	54	343	7	14	8	16	68	16	44	867
5:00 PM	11	230	42	53	346	8	6	9	13	69	18	44	849
5:15 PM	11	250	56	42	323	11	8	3	9	79	19	44	855
5:30 PM	10	239	28	36	349	8	11	4	7	68	16	40	816
5:45 PM	13	256	42	44	364	13	2	3	3	63	9	39	851
<b>TOTAL VOLUMES :</b>	92	1929	331	388	2682	77	81	58	73	548	123	313	6695
<b>APPROACH %'s :</b>	3.91%	82.02%	14.07%	12.33%	85.22%	2.45%	38.21%	27.36%	34.43%	55.69%	12.50%	31.81%	
<b>PEAK HR START TIME :</b>	4:30 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	46	1005	174	196	1372	39	39	35	49	280	69	165	3469
<b>PEAK HR FACTOR :</b>	0.934			0.957			0.809			0.905			0.966

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA11\_5436\_002

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**NOON**

NS/EW Streets:	Western Ave			Western Ave			Toscanini Dr			Toscanini Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	1	0	0	1	0	
2:00 PM	10	338	16	7	313	10	11	0	9	17	2	10	743
2:15 PM	10	324	16	5	296	9	10	0	21	10	0	9	710
2:30 PM	7	337	13	9	291	9	15	0	13	19	1	13	727
2:45 PM	19	326	11	8	359	13	13	2	21	15	0	9	796
3:00 PM	12	296	11	7	325	6	5	2	13	14	2	6	699
3:15 PM	23	309	23	15	324	13	3	1	20	11	1	3	746
3:30 PM	19	292	13	15	358	11	13	2	12	13	4	9	761
3:45 PM	19	259	20	8	371	11	6	3	12	11	1	7	728
<b>TOTAL VOLUMES :</b>	119	2481	123	74	2637	82	76	10	121	110	11	66	5910
<b>APPROACH %'s :</b>	4.37%	91.11%	4.52%	2.65%	94.41%	2.94%	36.71%	4.83%	58.45%	58.82%	5.88%	35.29%	
<b>PEAK HR START TIME :</b>	245 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	73	1223	58	45	1366	43	34	7	66	53	7	27	3002
<b>PEAK HR FACTOR :</b>	0.951			0.947			0.743			0.837			0.943

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_002

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**PM**

NS/EW Streets:	Western Ave			Western Ave			Toscanini Dr			Toscanini Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	1	0	0	1	0	
4:00 PM	14	277	15	8	366	10	5	3	16	17	1	3	735
4:15 PM	17	274	14	7	350	8	11	1	16	18	1	7	724
4:30 PM	16	292	17	13	412	9	3	2	13	8	4	7	796
4:45 PM	17	273	25	12	383	20	12	5	21	21	7	7	803
5:00 PM	14	286	14	16	413	15	7	2	17	12	5	9	810
5:15 PM	13	311	12	7	404	9	11	1	16	7	3	5	799
5:30 PM	19	287	12	10	394	13	5	5	19	13	4	6	787
5:45 PM	18	284	18	13	401	8	7	0	12	16	2	4	783
<b>TOTAL VOLUMES :</b>	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	128	2284	127	86	3123	92	61	19	130	112	27	48	6237
<b>APPROACH %'s :</b>	5.04%	89.96%	5.00%	2.61%	94.61%	2.79%	29.05%	9.05%	61.90%	59.89%	14.44%	25.67%	
<b>PEAK HR START TIME :</b>	430 PM												TOTAL
<b>PEAK HR VOL :</b>	60	1162	68	48	1612	53	33	10	67	48	19	28	3208
<b>PEAK HR FACTOR :</b>	0.960			0.965			0.724			0.679			0.990

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_001

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**NOON**

NS/EW Streets:	Western Ave			Western Ave			Caddington Dr			Caddington Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	1	0	0	1	1	
2:00 PM	19	310	0	11	304	28	39	1	20	3	0	0	735
2:15 PM	26	318	0	7	304	21	32	0	21	1	1	3	734
2:30 PM	19	327	0	13	313	33	35	1	18	2	0	2	763
2:45 PM	20	323	1	13	325	26	29	0	22	3	0	1	763
3:00 PM	29	278	2	14	341	28	33	1	23	13	0	8	770
3:15 PM	32	311	0	8	299	30	31	1	18	25	0	23	778
3:30 PM	31	302	0	4	349	43	20	0	23	8	0	4	784
3:45 PM	20	273	0	5	342	30	32	0	17	3	1	4	727
<b>TOTAL VOLUMES :</b>	196	2442	3	75	2577	239	251	4	162	58	2	45	6054
<b>APPROACH %'s :</b>	7.42%	92.46%	0.11%	2.59%	89.14%	8.27%	60.19%	0.96%	38.85%	55.24%	1.90%	42.86%	
<b>PEAK HR START TIME :</b>	245 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	112	1214	3	39	1314	127	113	2	86	49	0	36	3095
<b>PEAK HR FACTOR :</b>	0.966			0.934			0.882			0.443			0.987

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_001

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**PM**

NS/EW Streets:	Western Ave			Western Ave			Caddington Dr			Caddington Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	1	0	0	1	1	
4:00 PM	33	268	0	10	362	38	33	2	24	7	0	5	782
4:15 PM	32	280	1	8	358	42	27	0	15	8	1	2	774
4:30 PM	34	294	0	9	394	35	39	1	25	11	1	3	846
4:45 PM	34	272	0	8	381	46	31	0	19	14	0	14	819
5:00 PM	35	271	1	14	385	34	42	2	25	18	1	8	836
5:15 PM	45	301	0	9	388	42	35	0	25	4	1	3	853
5:30 PM	56	280	0	17	370	42	36	0	24	3	0	2	830
5:45 PM	36	272	0	8	383	41	35	0	15	5	0	3	798
<b>TOTAL VOLUMES :</b>	305	2238	2	83	3021	320	278	5	172	70	4	40	6538
<b>APPROACH %'s :</b>	11.98%	87.94%	0.08%	2.42%	88.23%	9.35%	61.10%	1.10%	37.80%	61.40%	3.51%	35.09%	
<b>PEAK HR START TIME :</b>	430 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	148	1138	1	40	1548	157	147	3	94	47	3	28	3354
<b>PEAK HR FACTOR :</b>	0.930			0.994			0.884			0.696			0.983

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA11\_5436\_008

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

### NOON

NS/EW Streets:	Gaffey St			Gaffey St			Westmont Dr			Westmont Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET .5	ER 1.5	WL 1.5	WT .5	WR 1	
2:00 PM	79	120	18	2	140	24	30	5	67	12	2	5	504
2:15 PM	59	126	25	8	128	25	25	1	65	14	0	4	480
2:30 PM	57	110	17	5	135	33	45	5	90	51	5	18	571
2:45 PM	67	131	17	2	153	22	32	6	58	44	1	18	551
3:00 PM	47	131	19	6	139	21	27	4	62	34	2	9	501
3:15 PM	63	114	25	5	137	22	34	0	63	13	0	4	480
3:30 PM	53	114	25	3	160	23	24	0	57	45	3	11	518
3:45 PM	76	130	27	10	168	39	39	7	72	34	1	2	605
<b>TOTAL VOLUMES :</b>	501	976	173	41	1160	209	256	28	534	247	14	71	4210
<b>APPROACH %'s :</b>	30.36%	59.15%	10.48%	2.91%	82.27%	14.82%	31.30%	3.42%	65.28%	74.40%	4.22%	21.39%	
<b>PEAK HR START TIME :</b>	200 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	262	487	77	17	556	104	132	17	280	121	8	45	2106
<b>PEAK HR FACTOR :</b>	0.952			0.956			0.766			0.588			0.922

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_008

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**PM**

NS/EW Streets:	Gaffey St			Gaffey St			Westmont Dr			Westmont Dr			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET .5	ER 1.5	WL 1.5	WT .5	WR 1	
4:00 PM	68	115	53	12	168	32	21	10	60	43	8	9	599
4:15 PM	87	123	46	13	184	29	19	8	59	47	12	12	639
4:30 PM	78	103	31	7	182	29	26	4	74	49	7	20	610
4:45 PM	109	129	27	7	165	35	23	1	80	37	3	16	632
5:00 PM	112	125	18	8	174	28	26	6	72	59	2	18	648
5:15 PM	98	112	13	7	213	33	22	2	70	77	9	25	681
5:30 PM	73	128	10	2	191	24	19	3	64	51	2	16	583
5:45 PM	82	111	12	4	186	19	10	0	48	21	1	12	506
<b>TOTAL VOLUMES :</b>	707	946	210	60	1463	229	166	34	527	384	44	128	4898
<b>APPROACH %'s :</b>	37.95%	50.78%	11.27%	3.42%	83.50%	13.07%	22.83%	4.68%	72.49%	69.06%	7.91%	23.02%	
<b>PEAK HR START TIME :</b>	430 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	397	469	89	29	734	125	97	13	296	222	21	79	2571
<b>PEAK HR FACTOR :</b>	0.901			0.877			0.976			0.725			0.944

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_007

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**NOON**

NS/EW Streets:	Gaffey St			Gaffey St			Capitol Dr			Capitol Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	0	2	0	1	0	1	0	0	0	
2:00 PM	61	239			219	22	35		53				629
2:15 PM	68	223			223	27	26		51				618
2:30 PM	69	187			278	27	25		51				637
2:45 PM	90	234			274	30	32		43				703
3:00 PM	81	188			241	13	34		47				604
3:15 PM	87	226			224	18	29		66				650
3:30 PM	133	209			304	23	22		76				767
3:45 PM	97	235			234	34	25		58				683
<b>TOTAL VOLUMES :</b>	686	1741	0	0	1997	194	228	0	445	0	0	0	5291
<b>APPROACH %'s :</b>	28.27%	71.73%	0.00%	0.00%	91.15%	8.85%	33.88%	0.00%	66.12%	#DIV/0!	#DIV/0!	#DIV/0!	
<b>PEAK HR START TIME :</b>	245 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	391	857	0	0	1043	84	117	0	232	0	0	0	2724
<b>PEAK HR FACTOR :</b>	0.912			0.862			0.890			0.000			0.888

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_007

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

**PM**

NS/EW Streets:	Gaffey St			Gaffey St			Capitol Dr			Capitol Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	0	0	2	0	1	0	1	0	0	0	
4:00 PM	99	223			290	30	28		61				731
4:15 PM	82	241			247	29	24		65				688
4:30 PM	119	243			294	34	26		81				797
4:45 PM	138	251			286	34	23		61				793
5:00 PM	117	289			291	42	22		68				829
5:15 PM	155	228			365	51	35		41				875
5:30 PM	129	228			336	24	18		72				807
5:45 PM	124	212			250	31	27		55				699
<b>TOTAL VOLUMES :</b>	963	1915	0	0	2359	275	203	0	504	0	0	0	6219
<b>APPROACH %'s :</b>	33.46%	66.54%	0.00%	0.00%	89.56%	10.44%	28.71%	0.00%	71.29%	#DIV/0!	#DIV/0!	#DIV/0!	
<b>PEAK HR START TIME :</b>	445 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	539	996	0	0	1278	151	98	0	242	0	0	0	3304
<b>PEAK HR FACTOR :</b>	0.945			0.859			0.944			0.000			0.944

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA11\_5436\_006

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

NOON

NS/EW Streets:	Gaffey St			Gaffey St			Channel St			Channel St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	1	2	2	0	1	2	1	1	1	1	
2:00 PM	37	189	40	111	173	7	14	57	27	17	20	85	777
2:15 PM	32	207	39	95	163	7	9	48	30	22	30	77	759
2:30 PM	35	212	53	117	194	5	10	52	29	19	21	63	810
2:45 PM	49	235	62	128	204	1	7	37	30	12	20	76	861
3:00 PM	40	188	53	101	170	7	7	41	31	14	26	63	741
3:15 PM	42	242	42	97	201	4	9	42	24	19	16	70	808
3:30 PM	51	214	42	123	173	6	10	69	22	19	30	87	846
3:45 PM	47	242	48	114	197	3	13	58	22	29	16	78	867
<b>TOTAL VOLUMES :</b>	333	1729	379	886	1475	40	79	404	215	151	179	599	6469
<b>APPROACH %'s :</b>	13.64%	70.83%	15.53%	36.90%	61.43%	1.67%	11.32%	57.88%	30.80%	16.25%	19.27%	64.48%	
<b>PEAK HR START TIME :</b>	300 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	180	886	185	435	741	20	39	210	99	81	88	298	3262
<b>PEAK HR FACTOR :</b>	0.928			0.952			0.861			0.858			0.941

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA11\_5436\_006

Day: TUESDAY

City: City of Rancho Palos Verdes

Date: 11/15/2011

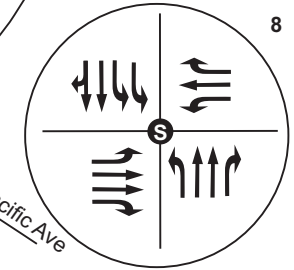
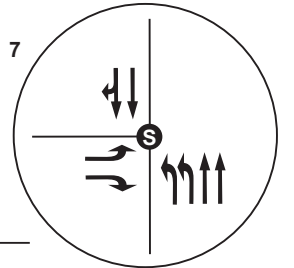
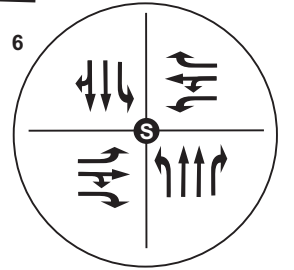
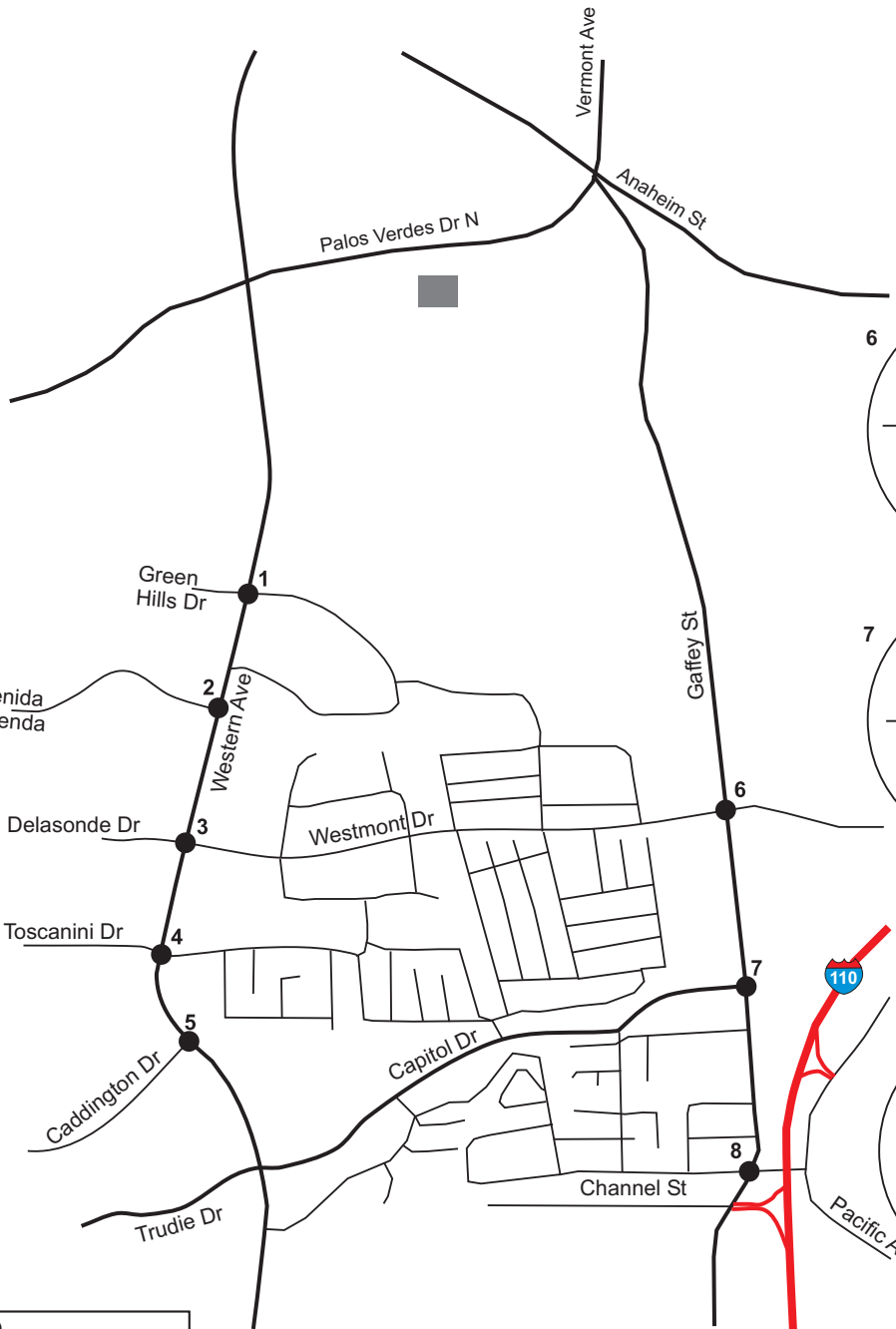
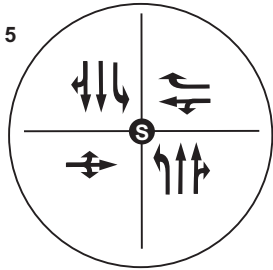
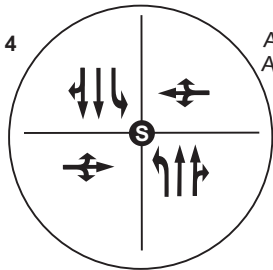
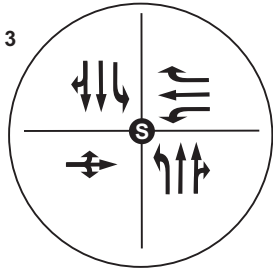
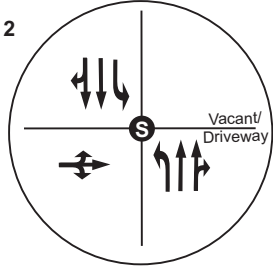
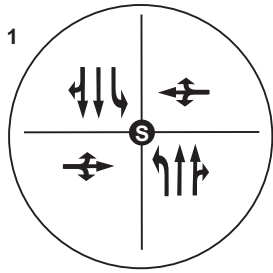
**PM**

NS/EW Streets:	Gaffey St			Gaffey St			Channel St			Channel St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 1	WR 1	
4:00 PM	56	288	79	134	214	6	9	40	24	23	24	74	971
4:15 PM	61	238	56	104	189	10	13	43	21	27	40	76	878
4:30 PM	51	275	53	127	256	6	11	47	23	30	24	84	987
4:45 PM	63	270	65	127	217	10	9	71	51	48	45	135	1111
5:00 PM	75	298	76	118	241	6	13	70	58	29	61	110	1155
5:15 PM	69	260	79	135	259	6	13	60	40	21	44	81	1067
5:30 PM	94	283	96	128	279	6	11	59	35	22	28	79	1120
5:45 PM	69	236	91	116	204	5	22	47	35	22	35	67	949
<b>TOTAL VOLUMES :</b>	NL 538	NT 2148	NR 595	SL 989	ST 1859	SR 55	EL 101	ET 437	ER 287	WL 222	WT 301	WR 706	TOTAL 8238
<b>APPROACH %'s :</b>	16.40%	65.47%	18.13%	34.07%	64.04%	1.89%	12.24%	52.97%	34.79%	18.06%	24.49%	57.45%	
<b>PEAK HR START TIME :</b>	445 PM												TOTAL
<b>PEAK HR VOL :</b>	301	1111	316	508	996	28	46	260	184	120	178	405	4453
<b>PEAK HR FACTOR :</b>	0.913			0.927			0.869			0.771			0.964




CONTROL : Signalized

**ATTACHMENT B**

**INTERSECTION LANE CONFIGURATIONS**



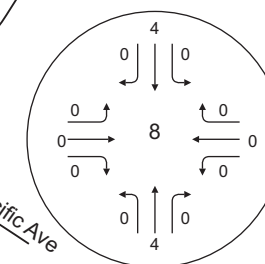
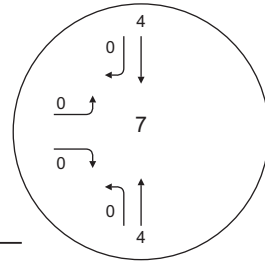
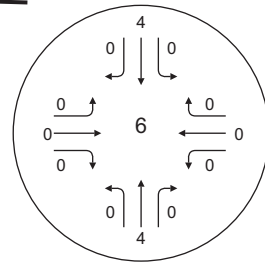
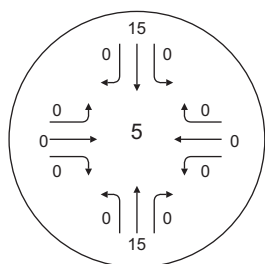
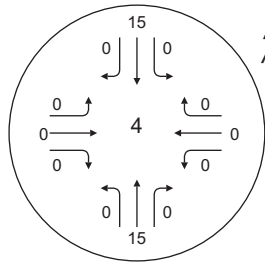
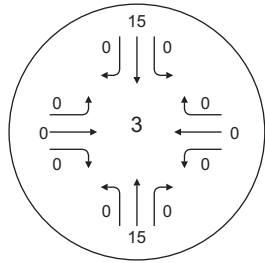
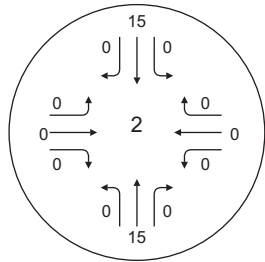
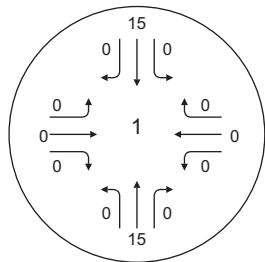
**LEGEND**

-  Project Location
-  Study Intersections
-  Intersection Lane Geometry



**ATTACHMENT C**

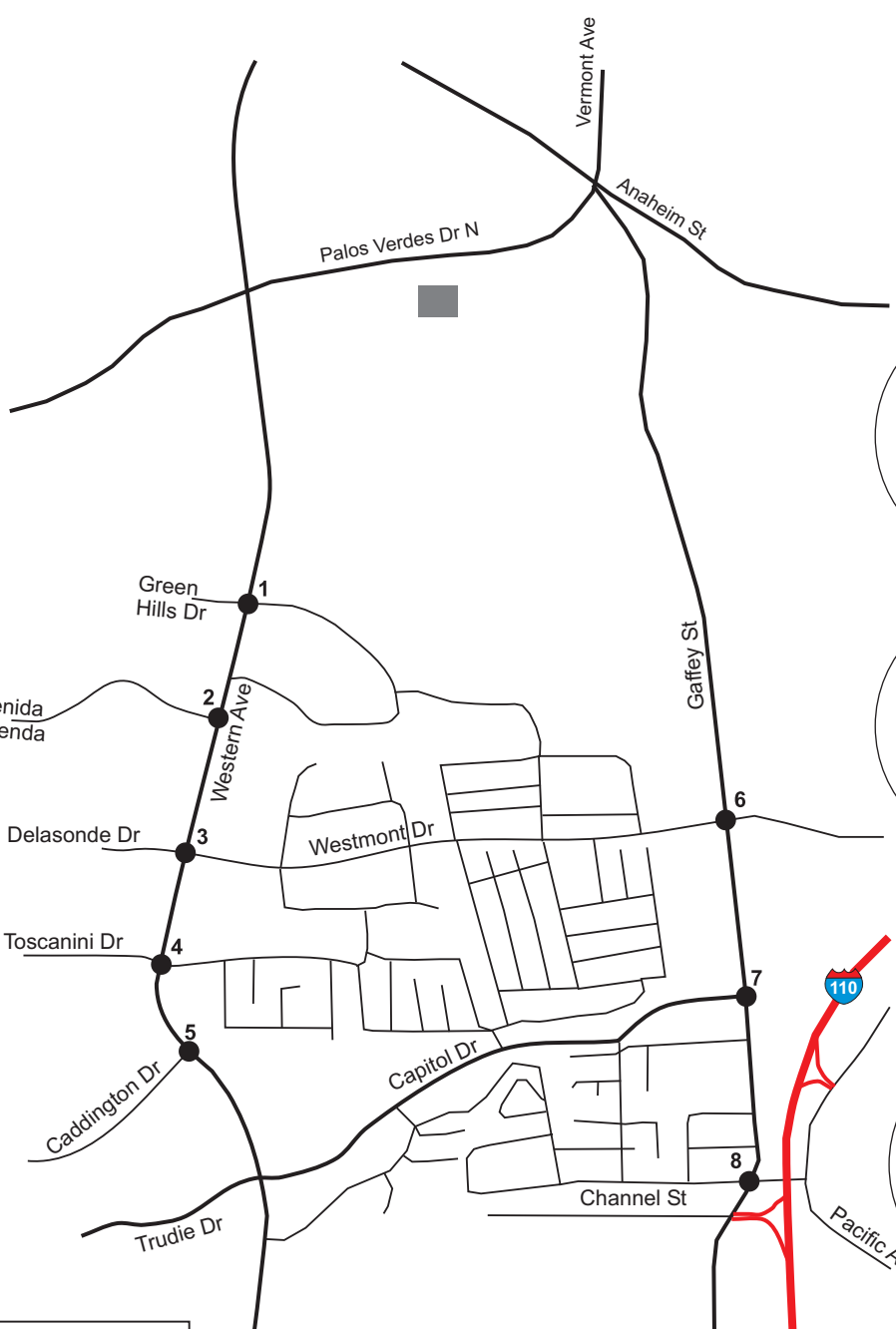
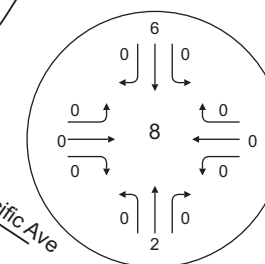
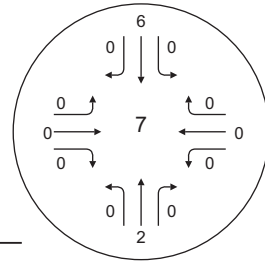
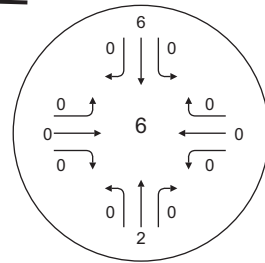
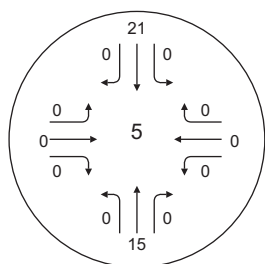
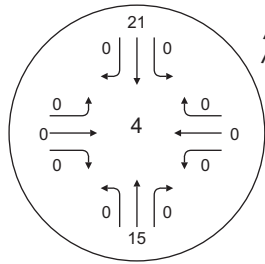
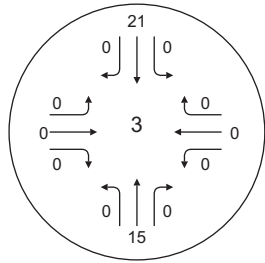
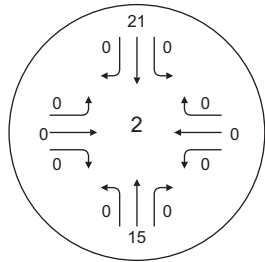
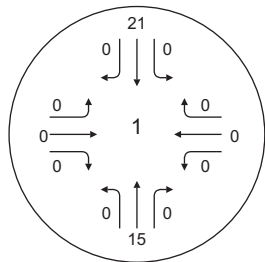
**NET PROJECT ONLY TRAFFIC VOLUMES**






**LEGEND**

- Project Location
- Study Intersections
- Intersection Turn Volume





**LEGEND**

-  Project Location
-  Study Intersections
-  Intersection Turn Volume



**ATTACHMENT D**

**RELATED PROJECTS TRIP GENERATION  
AND TRAFFIC ASSIGNMENT**

ATTACHMENT D



NO.	PROJECT STATUS	PROJECT NAME ADDRESS/LOCATION	LAND USE DATA		DAILY TRIP ENDS VOLUMES	WEEKDAY						
						MID-AFTERNOON PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES			
			LAND-USE	SIZE		IN	OUT	TOTAL	IN	OUT	TOTAL	
<b>City of Los Angeles</b>												
1	Proposed	ENV-2010-1216-CE 1401 W. 253rd Street	Condominium	2 DU	12	1	0	1	1	0	1	
			Existing Commercial	-3,500 GSF	-150	-6	-7	-13	-6	-7	-13	
2	Proposed	ENV-2009-1034-EAF, HRB09-003 1717 W. 255th Street	Private School (K-8)	225 Students	2,030	63	72	135	Nom.	Nom.	0	
			Existing Private School (K-8)	-47 Students	-420	-13	-15	-28	Nom.	Nom.	0	
			Existing Day Care Center	-20 Students	-90	-8	-8	-16	-8	-8	-16	
3	Proposed	ENV-2009-3936-EAF, HRB10-001 25621 S. Normandie Avenue	Day Care	84 Students	376	32	37	69	32	37	69	
4	Under Construction	ENV-2006-4723-EA Kaiser Permanente South Bay Master Plan 25825 Vermont Avenue	Medical Office Building	303,000 GSF	2,481	69	187	256	69	187	256	
			Warehouse	42,500 GSF								
			Hospital	260 Beds								
5	Proposed	CPC-2006-10244-ZC 1450 W. Pacific Coast Highway	Condominium	57 DU	331	20	10	30	20	10	30	
6	Proposed	ENV-2007-804-EAF 25941 S. Belle Porte Avenue	Condominium	30 DU	174	11	5	16	11	5	16	
7	Proposed	ENV-2008-95-EAF 1616 W. 260th Street	Apartment	8 DU	53	3	2	5	3	2	5	
8	Proposed	ENV-2005-5459-MND, TT-63729 26378 S. Vermont Avenue	Condominium	44 DU	256	15	8	23	15	8	23	
9	Proposed	HRB10-005 1524 Palos Verdes Drive North	Affordable Housing	76 DU	442	27	13	40	27	13	40	
10	Proposed	ENV-2006-9652-MN 931 Frigate Avenue	Private Elementary School	128 Students	317	36	41	77	9	13	22	
11	Under Construction	Community Plan 97-0050-CPU 401 Hawaiian Avenue	Condominium	115 DU	668	40	20	60	40	20	60	
			Apartment	120 DU	798	48	26	74	48	26	74	
			Single-Family Residential	76 DU	727	49	28	77	49	28	77	
			Senior Housing	100 Occ. DU	348	10	6	16	10	6	16	
12	Proposed	TRAPAC Container Terminal TRAPAC Container Expansion Berths 136-147	Marine Terminal	57 Acres	2,100	86	124	210	86	124	210	
13	Proposed	Yang Ming Container Terminal Berths 121-131	Marine Terminal	N/A	5,080	206	302	508	206	302	508	
14	Proposed	ZA-2010-1604-CU 750 W. Basin Street	Self-Storage	44,341 GSF	111	6	6	12	6	6	12	
15	Proposed	China Shipping Container Terminal China Shipping Line - Phases II and III	Marine Terminal	70 Acres	3,540	149	205	354	149	205	354	

ATTACHMENT D



NO.	PROJECT STATUS	PROJECT NAME ADDRESS/LOCATION	LAND USE DATA		DAILY TRIP ENDS VOLUMES	WEEKDAY					
						MID-AFTERNOON PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES		
			LAND-USE	SIZE		IN	OUT	TOTAL	IN	OUT	TOTAL
<b>City of Los Angeles</b>											
16	Under Construction	ZA-2007-2966-ZV Toberman Village 201 N. Palos Verdes Street Berths 97-108	Apartment	49 DU	326	20	10	30	20	10	30
17	Proposed	Ocean View 111 and 203-233 N. Harbor Boulevard	Apartment Retail Less 50% Pass-By	158 DU 8,000 GLSF	1,051 344 -172	64 15 -8	34 15 -8	98 30 -15	64 15 -8	34 15 -8	98 30 -15
18	Proposed	META Housing Corporation 303 S. Pacific Avenue	Senior Housing	70 DU	244	7	4	11	7	4	11
19	Under Construction	Port Police Station & Charter School 330 S. Centre Street	Office Police Headquarters Charter School	12,500 SF 155 Employees 580 Students	3583	80 73	120 89	200 162	80 Nom.	120 Nom.	200 0
20	Proposed	ENV-2007-1514-EA 327 & 407 N. Harbor Boulevard	Condominium	94 DU	546	33	16	49	33	16	49
21	Proposed	San Pedro Waterfront (Bridge to Breakwater) of the Port of Los Angeles 425 S. Palos Verdes Street Berths 45-95	Cruise Ship Terminal Retail Restaurant Conference Center Warehouse R&D Site Public Open Space	2 Terminals 175,000 GSF 125,000 GSF 75,000 GSF 70,000 GSF 13 Acres 18 Acres	18,350	617	818	1,435	617	818	1,435
22	Proposed	2006-CEN-3299 Palos Verdes Street Housing 550 and 560 S. Palos Verdes Street	Townhouse Apartment Retail Less 50% Pass-By Restaurant Less 20% Pass-By	85 DU 245 DU 8,880 GLSF 3,000 GSF	494 1,629 381 -191 381 -76	29 99 16 -8 19 -4	15 53 17 -9 14 -3	44 152 33 -17 33 -7	29 99 16 -8 19 -4	15 53 17 -9 14 -3	44 152 33 -17 33 -7
23	Proposed	Sepia Homes 812 S. Pacific Avenue	Condominium	90 DU	523	31 0	16 0	47 0	31	16	47
24	Proposed	281 W. 8th Street	Townhouse Retail Less 50% Pass-By	72 DU 7,000 GLSF	418 301 -151	25 13 -7	12 13 -7	37 26 -13	25 13 -7	12 13 -7	37 26 -13
25	Proposed	TT-68723-CN 255 W. 8th Street	Condominium Apartment	43 DU 4 DU	250 27	15 1	7 1	22 2	15 1	7 1	22 2
26	Proposed	420-430 W. 9th Street	Condominium	25 DU	145	9	4	13	9	4	13

ATTACHMENT D



NO.	PROJECT STATUS	PROJECT NAME ADDRESS/LOCATION	LAND USE DATA		WEEKDAY							
					DAILY TRIP ENDS VOLUMES	MID-AFTERNOON PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES			
			LAND-USE	SIZE		IN	OUT	TOTAL	IN	OUT	TOTAL	
<b>City of Los Angeles</b>												
27	Proposed	ENV-2009-4097-CE Harbor Interfaith Services 678 W. 9th Street	Family Resource Center and Childcare Facilities	15,398	GSF	1,220	90	102	192	90	102	192
28	Proposed	AA-2008-2427-COC 576 W. 10th Street	Condominium	4	DU	23	1	1	2	1	1	2
29	Proposed	ZA-2008-4396-ZAA 1325 S. Beacon Street	Condominium	3	DU	17	1	1	2	1	1	2
30	Proposed	ENV-2008-1046-EAF 1831 S. Pacific Avenue	Convenience Market Less 50% Pass-By	2,700	GSF	1,993 -997	72 -36	70 -35	142 -71	72 -36	70 -35	142 -71
31	Proposed	West Channel/Cabrillo Miner Street and 22nd Street	Land Development	47	Acres	3,867	138	124	262	138	124	262
32	Proposed	ENV-2007-3326-EAF 2345 S. Gaffey Street	Apartment	7	DU	47	3	1	4	3	1	4
33	Proposed	AA-2010-1580-PMLA 906 W. 30th Street	Condominium	3	DU	17	1	1	2	1	1	2
34	Proposed	HRB08-001 3200 S. Alma St	High School Adult Evening School	810 450	Students Students	1,385 540	78 35	157 19	235 54	49 35	56 19	105 54
35	Proposed	HRB10-006 1603 W. 25th Street	Bank with Drive-Through Less 20% Pass-By Existing Auto Care Center	3,700 -1,046	GSF GLSF	548 -110 -40	48 -10 -2	48 -10 -2	96 -19 -4	48 -10 -2	48 -10 -2	96 -19 -4
36	Proposed	HRB10-009 Ponte Vista at San Pedro	Single-Family Residential Condominium Apartment Park	143 600 392 2.8	DU DU DU Acres	7,468	458	241	699	458	241	699
37	Proposed	HRB08-004 511 S Harbor Blvd	Condominium Retail Existing High-Turnover Restaurant	458 5,000 4,000	DU GSF GSF	453	23	14	37	23	14	37
38	Approved	Rolling Hills Preparatory Private School South side of Palos Verdes Dr. N. west of Normandie Ave/Gaffey Street	Proposed K-12 Private School Existing K-12 Private School	900 -265	Students Students	2232 -657	219 -65	303 -89	522 -154	66 -19	87 -26	153 -45
39		West of Gaffey St and South of Capitol Dr	Single-Family Residential	134	DU	1,282	85	50	135	85	50	135

**ATTACHMENT D**



NO.	PROJECT STATUS	PROJECT NAME ADDRESS/LOCATION	LAND USE DATA		DAILY TRIP ENDS VOLUMES	WEEKDAY						
						MID-AFTERNOON PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES			
			LAND-USE	SIZE		IN	OUT	TOTAL	IN	OUT	TOTAL	
<b>City of Los Angeles</b>												
40	Proposed	HRB11-004 2200 Signal St, San Pedro, CA	Redevelop existing warehouses on Berths 56-60 and 70-71 to house Research & Development Facilities including: laboratories, teaching facilities, a learning center, R&D incubator sites, a large wave tank, and 12 boat slips for research vessels	-	-	2,926	60	283	343	60	283	343

Notes:

Source: City of Los Angeles City Planning Department, City of Los Angeles Department of Transportation (LADOT)

Trip generation for the PM peak hour obtained from LADOT and other traffic studies. For related projects obtained from LADOT, the directional splits are based on the ITE Trip Generation, 8th Edition book.

Trip generation for the mid-afternoon peak hour was not available from the LADOT database and other traffic studies. Trip generation for the PM peak hour was assumed for the mid-afternoon peak hour, except for school uses in which the trip rate for the PM peak hour of generator per ITE

Trip Generation, 8th Edition book was used.

**ATTACHMENT D**



NO.	PROJECT STATUS	PROJECT NAME ADDRESS/LOCATION	LAND USE DATA		DAILY TRIP ENDS VOLUMES	WEEKDAY						
						MID-AFTERNOON PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES			
			LAND-USE	SIZE		IN	OUT	TOTAL	IN	OUT	TOTAL	
<b>City of Rancho Palos Verdes</b>												
1	Partially Built	Trump National Golf Club - Palos Verdes Drive South/west of Shoreline Park	Single-Family Residential	54	DU	517	35	20	55	35	20	55
			Affordable Housing (5 Homes Built)	4	DU	38	3	1	4	3	1	4
2	Proposed	The Annenberg Project at Lower Point Vicente 31501 Palos Verdes Drive West				596	51	59	110	51	59	110
3	Partially Built	Ocean Front Estates Seaward side of Palos Verdes Drive West terminus of Hawthorne Boulevard	Single-Family Residential (74 Homes Built)	6	DU	57	4	2	6	4	2	6
4	Partially Built	TTM No. 52666 3200 Palos Verdes Drive West	Single-Family Residential (10 Homes Built)	3	DU	29	2	1	3	2	1	3
5	Proposed	Marymount College Facilities Expansion  30800 Palos Verdes Drive East (793 Student Enrollment Cap with 250 student Bachelor of Arts Degree Program and 150 student Weekend Enrollment)	Junior College Bldg Expansion	77,504	SF	1,931	83	92	175	83	92	175
			Demolish Existing Building	-18,022	SF							
			BA Degree Program (University)	250	Students							
			Existing Junior College Jr. College Weekend Enrollment	-250 67	Students							
6	Permit Expired 10/09	Hawthorne/Crest Office Building 29941 Hawthorne Boulevard	Office	7,232	GSF	80	2	9	11	2	9	11
7	Under Construction	Peninsula Community Church 5640 Crestridge Road	Church	2,675	GSF	24	1	1	2	1	1	2
8	Proposed	Green Hills Memorial Park Master Plan 27501 S. Western Avenue	Cemetery	27.3	Acres	129	8	15	23	8	15	23
9	Approved	Highridge Condominium Project 28220 Highridge Road	Condominium	28	DU	163	10	5	15	10	5	15
10	Approved	St. John Fisher Church Expansion 5488 Crest Road	Day Care Center Church + Other Uses	40	Students	251	18	23	41	18	23	41
11	Under Construction	Palos Verdes Art Center 5504 Crestridge	Remodel	-	-	-	-	-	-	-	-	-
12	Proposed	Zone 2 Landslide Moratorium Ordinance Revision North of Palos Verdes Drive between Narcissa Drive and Peppertree Drive	Single-Family Residential	47	DU	450	30	17	47	30	17	47
13	Approved	Chevron Gas Station & Car Wash - 27774 Hawthorne Boulevard	Gas Station With Convenience	1,044	GSF	1,014	51	51	101	51	51	101
14	MND	Lower Hesse Park Improvement	Park Expansion	-	-	-	-	-	-	-	-	-
15	MND	Grandview Park	Park Expansion	-	-	-	-	-	-	-	-	-

Notes:

Source: City of Rancho Palos Verdes Planning Department

Trip generation for the PM peak hour based on trip rates from ITE Trip Generation book, 8th Edition and other traffic studies. Trip rates for the mid-afternoon peak hour are not available in ITE Trip Generation. The PM peak hour trip generation was assumed for the mid-afternoon peak period.

**ATTACHMENT D**



NO.	PROJECT STATUS	PROJECT NAME ADDRESS/LOCATION	LAND USE DATA		DAILY TRIP ENDS VOLUMES	WEEKDAY						
						MID-AFTERNOON PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES			
			LAND-USE	SIZE		IN	OUT	TOTAL	IN	OUT	TOTAL	
<b>City of Rolling Hills Estates</b>												
1	Approved	627 Deep Valley Drive	Condominium	58	DU	337	20	10	30	20	10	30
			Retail	5,810	GSF	257	7	9	16	7	9	16
			Total			594	27	19	46	27	19	46
2	Approved	Senior Condominium	Senior Condominium	16	DU	93	5	3	8	5	3	8
3	Approved	927 Deep Valley Drive	Condominium	75	DU	436	26	13	39	26	13	39
			Retail	2,000	SF	89	2	3	5	2	3	5
			Total			525	28	16	44	28	16	44
4	Approved	Silverdes Medical Office Project	Medical Office	22,247	GSF	886	23	62	85	23	62	85
			Office	4,166	GSF	56	1	7	8	1	7	8
			Total			942	24	69	93	24	69	93
5	Proposed	655 Deep Valley Drive and	Condominium	148	DU	860	52	25	77	52	25	77
			Retail	14,200	GLSF	629	17	21	38	17	21	38
			Total			1489	69	46	115	69	46	115
6	Approved	5883 Crest Road	Retail	5,760	GSF	50	1	6	7	1	6	7
7	Proposed	550 Deep Valley Drive	Condominium	66	DU	383	23	11	34	23	11	34
			Retail	16,620	GLSF	737	20	25	45	20	25	45
			Total			1120	43	36	79	43	36	79
8	Proposed	Butcher Ranch Subdivision	Single-Family Residential	13	DU	124	8	5	13	8	5	13
9	Proposed	Tanglewood Subdivision - Northeast corner of Tanglewood Lane and Rolling Hills Road	Single-Family Residential	3	DU	29	2	1	3	2	1	3
10	Proposed	627 Silver Spur Road	Condominium	70	DU	407	24	12	36	24	12	36
			Commercial	30,000	GSF	1330	36	45	81	36	45	81
			Total			1737	60	57	117	60	57	117
11	Approved	901 Silver Spur Road	Commercial	10,472	GSF	464	12	16	28	12	16	28
12	Proposed	Rolling Hills Covenant Church Expansion	Church	16,232	GSF	148	4	5	9	4	5	9
13	Proposed	Chandler Ranch/Rolling Hills Country Club - 26311 and 27000 Palos Verdes Drive East	Single-Family Residential	114	DU	1091	72	43	115	72	43	115
			Golf Course	61,411	GSF	8	1	0	1	1	0	1
			Total			1099	73	43	116	73	43	116

Notes:

Source: City of Rolling Hills Estates Planning Department

Trip generation for the PM peak hour based on trip rates from ITE Trip Generation book, 8th Edition and other traffic studies. Trip rates for the mid-afternoon peak hour are not available in ITE Trip Generation. The PM peak hour trip generation was assumed for the mid-afternoon peak hour period.

**ATTACHMENT D**

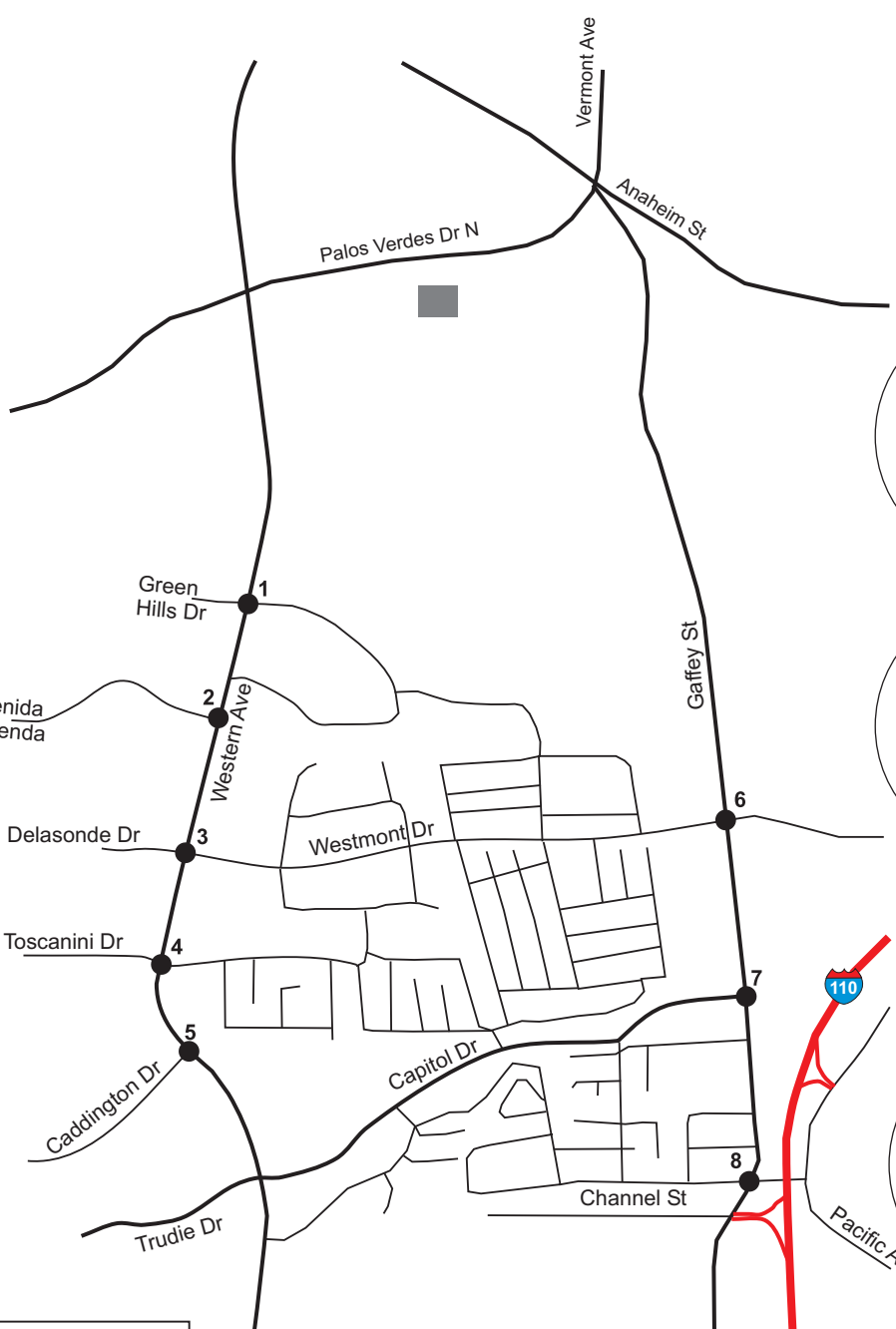
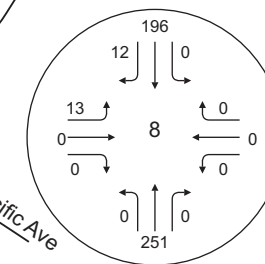
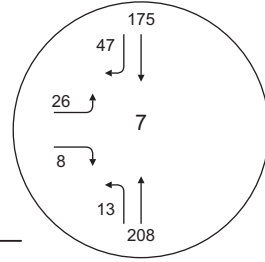
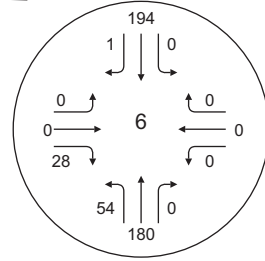
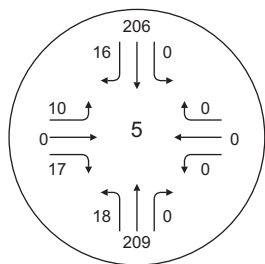
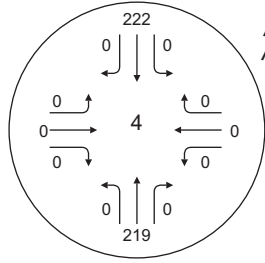
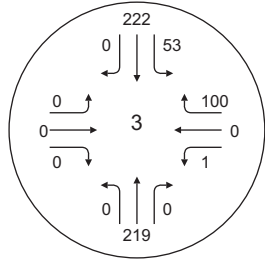
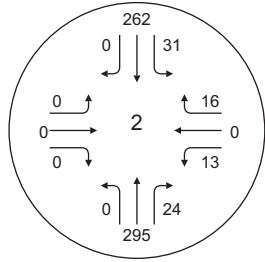
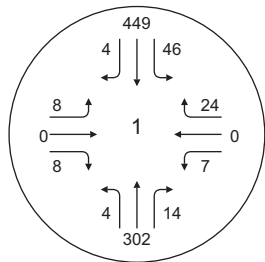


NO.	PROJECT STATUS	PROJECT NAME ADDRESS/LOCATION	LAND USE DATA		DAILY TRIP ENDS VOLUMES	WEEKDAY						
						MID-AFTERNOON PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES			
			LAND-USE	SIZE		IN	OUT	TOTAL	IN	OUT	TOTAL	
<b>City of Lomita</b>												
1	Approved	CUP 242, TTM No. 067343 25316 Ebony Lane	Senior Housing	16	Occ. DU	56	2	1	3	2	1	3
2	Approved	SP 1003, HVP 73, TTM 53874 25829-25837 Eshelman Avenue	Condominium	16	DU	93	5	3	8	5	3	8
3	Proposed	SP 1014, TPM 61155 1837 and 1839 W. 257th Street	Condominium	3	DU	17	1	1	2	1	1	2
4	Approved	SP 1130 2266 Lomita Boulevard	Commercial	1,076	GSF	46	2	2	4	2	2	4
5	Built	SP No. 978 2040 & 2046 Lomita Boulevard	Commercial	14,330	GLSF	615	26	27	53	26	27	53
6	Proposed	CUP 268, TPM 066806, SP 1123 25322 Cypress Street	Condominium	3	DU	17	1	1	2	1	1	2
7	Appealed	SP 1049 2244 Pacific Coast Highway	Retail	18,285	GLSF	785	33	35	68	33	35	68
8	Approved	TTM No. 60165 25819-25 Eshelman Avenue	Senior Housing	20	Occ. DU	70	2	1	3	2	1	3
9	Approved	SP No. 1096 Southeast corner of Western Avenue and 262nd Street	Office	11,100	GSF	122	3	14	17	3	14	17

Notes:

City of Lomita Planning Department

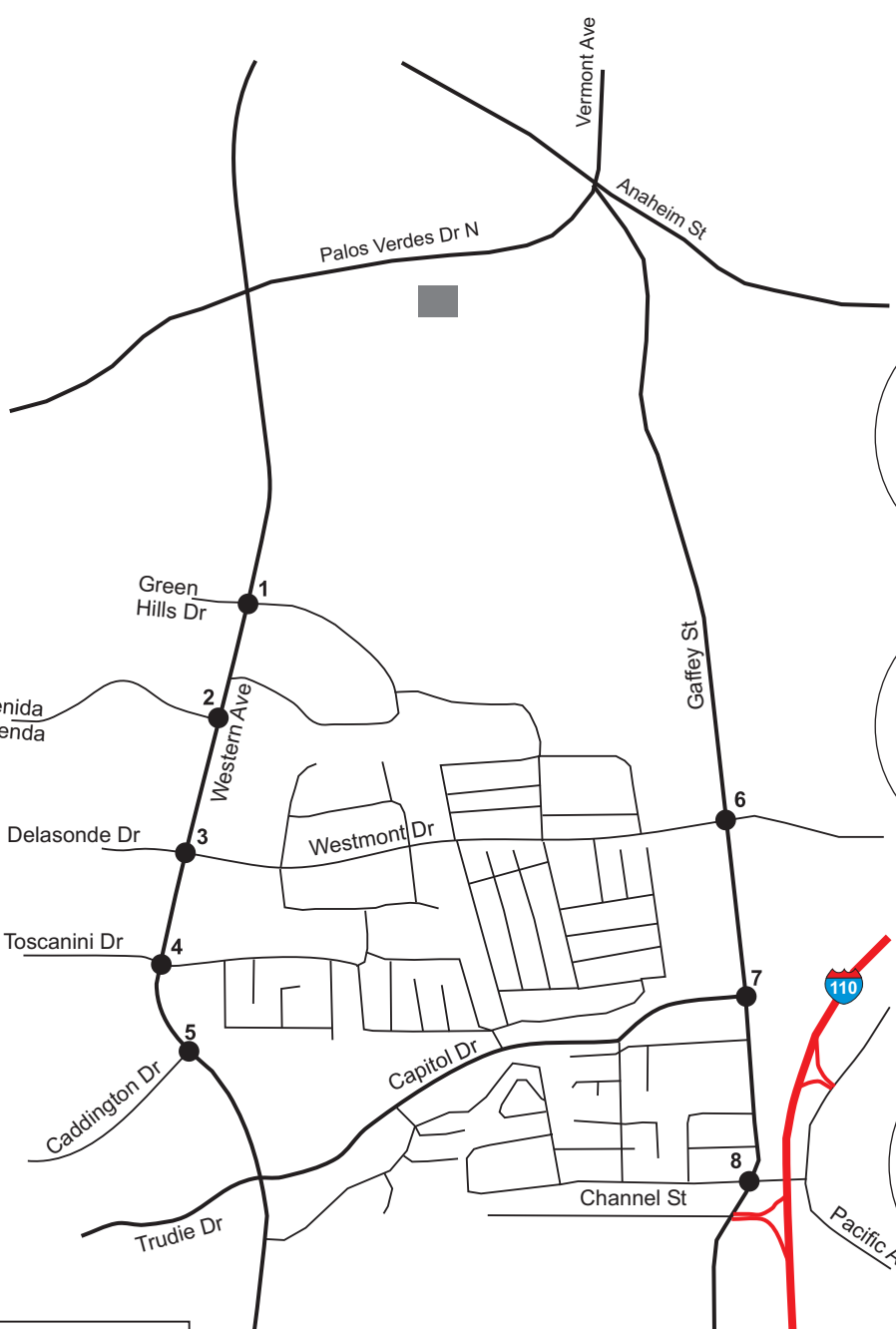
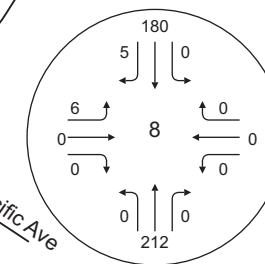
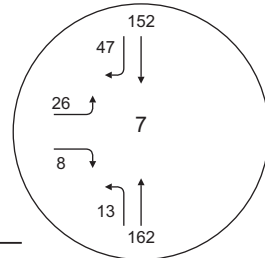
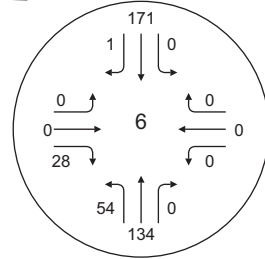
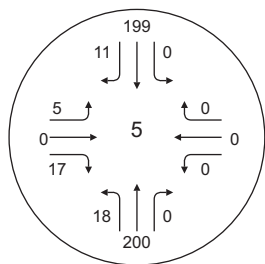
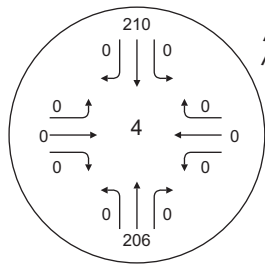
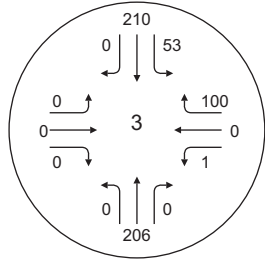
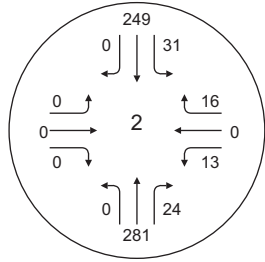
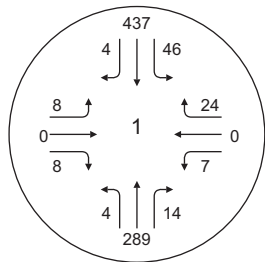
Trip generation for the PM peak hour based on trip rates from ITE Trip Generation book, 8th Edition and other traffic studies. Trip rates for the mid-afternoon peak hour are not available in ITE Trip Generation. The PM peak hour trip generation was assumed for the mid-afternoon peak hour period.






**LEGEND**

- Project Location
- Study Intersections
- Intersection Turn Volume





**LEGEND**

-  Project Location
-  Study Intersections
-  Intersection Turn Volume



**ATTACHMENT E**

**INTERSECTION LEVEL OF SERVICE  
CALCULATION WORKSHEETS**

## **CITY OF RANCHO PALOS VERDES INTERSECTIONS**

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
MD Afternoon Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1001 Western Ave & Green Hills Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: B

\*\*\*\*\*

Table with columns for Street Name (Western Ave, Green Hills Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat for each approach.

Capacity Analysis Module: Table showing Vol/Sat and Crit Moves for each approach.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #1002 Western Ave & Avenida Aprenda
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.617
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Avenida Aprenda), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, User Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module: Table showing capacity analysis metrics like Vol/Sat and Crit Moves for each approach.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.828
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 74 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Western Ave and Delasonde Dr/Westmont Dr with various movement details.

Volume Module:

Table with 13 columns and 11 rows showing volume calculations: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:

Table with 13 columns and 4 rows showing saturation flow: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 13 columns and 2 rows showing capacity analysis: Vol/Sat, Crit Moves.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1004 Western Ave & Toscanini Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.686
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

\*\*\*\*\*

Table with columns for Street Name (Western Ave, Toscanini Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1005 Western Ave & Caddington Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.777
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: C

\*\*\*\*\*

Table with columns for Street Name (Western Ave, Caddington Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

\*\*\*\*\*

-----  
 Marymount College Palos Verdes North - Traffic Study  
 Existing Conditions  
 PM Peak Hour  
 -----

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1001 Western Ave & Green Hills Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 46 Level Of Service: B

\*\*\*\*\*

Street Name:	Western Ave					Green Hills Dr														
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1

Volume Module:

Base Vol:	6	1224	0	0	1710	6	32	0	11	0	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	1224	0	0	1710	6	32	0	11	0	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	1224	0	0	1710	6	32	0	11	0	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	1224	0	0	1710	6	32	0	11	0	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	1224	0	0	1710	6	32	0	11	0	0	1

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.99	0.01	0.74	0.00	0.26	0.00	0.00	1.00
Final Sat.:	1600	3200	0	1600	3189	11	1191	0	409	0	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.38	0.00	0.00	0.54	0.54	0.02	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****				****				****	****		

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1002 Western Ave & Avenida Aprenda

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.711
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: C

\*\*\*\*\*

Table with columns for Street Name (Western Ave, Avenida Aprenda), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
PM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.843
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Western Ave and Delasonde Dr/Westmont Dr with various movement details.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows include Western Ave and Delasonde Dr/Westmont Dr.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Western Ave and Delasonde Dr/Westmont Dr.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves. Rows include Western Ave and Delasonde Dr/Westmont Dr.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1004 Western Ave & Toscanini Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.757
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: C

\*\*\*\*\*

Table with columns for Street Name (Western Ave, Toscanini Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #1005 Western Ave & Caddington Dr
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.907
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 104 Level Of Service: E
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Caddington Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study
Existing Plus Project Conditions
MD Afternoon Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1001 Western Ave & Green Hills Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.606
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

\*\*\*\*\*

Table with columns for Street Name (Western Ave, Green Hills Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table showing capacity analysis metrics like Vol/Sat and Crit Moves.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1002 Western Ave & Avenida Aprenda  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.622  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 42 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Western Ave						Avenida Aprenda																		
	North Bound			South Bound			East Bound			West Bound															
Approach:	North Bound			South Bound			East Bound			West Bound															
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Permitted						Permitted						Permitted												
Rights:	Include						Include						Include												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0

Volume Module:

Base Vol:	17	1376	0	0	1194	41	85	0	55	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	1376	0	0	1194	41	85	0	55	0	0	0
Added Vol:	0	15	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	1391	0	0	1209	41	85	0	55	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	1391	0	0	1209	41	85	0	55	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	1391	0	0	1209	41	85	0	55	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	1391	0	0	1209	41	85	0	55	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.93	0.07	0.61	0.00	0.39	0.00	1.00	0.00
Final Sat.:	1600	3200	0	1600	3095	105	971	0	629	0	1600	0

Capacity Analysis Module:

Vol/Sat:	0.01	0.43	0.00	0.00	0.39	0.39	0.05	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****			****			****					

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.833  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 75 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Western Ave					Delasonde Dr/Westmont Dr							
Approach:	North Bound		South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected		Protected			Permitted			Permitted				
Rights:	Include		Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	35	1189	150	144	1015	29	21	24	39	268	40	195
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	1189	150	144	1015	29	21	24	39	268	40	195
Added Vol:	0	15	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	1204	150	144	1030	29	21	24	39	268	40	195
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	1204	150	144	1030	29	21	24	39	268	40	195
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	1204	150	144	1030	29	21	24	39	268	40	195
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	1204	150	144	1030	29	21	24	39	268	40	195

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	1.00	1.95	0.05	0.25	0.29	0.46	1.00	1.00	1.00
Final Sat.:	1600	2845	355	1600	3112	88	400	457	743	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.42	0.42	0.09	0.33	0.33	0.01	0.05	0.05	0.17	0.03	0.12
Crit Moves:	****		****			****			****			

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Existing Plus Project Conditions
MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1004 Western Ave & Toscanini Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Toscanini Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 MD Afternoon Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1005 Western Ave & Caddington Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 63 Level Of Service: C

\*\*\*\*\*

Street Name:	Western Ave						Caddington Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	112	1214	3	39	1314	127	113	2	86	49	0	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	1214	3	39	1314	127	113	2	86	49	0	36
Added Vol:	0	15	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	1229	3	39	1329	127	113	2	86	49	0	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	112	1229	3	39	1329	127	113	2	86	49	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	1229	3	39	1329	127	113	2	86	49	0	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	1229	3	39	1329	127	113	2	86	49	0	36

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.83	0.17	0.56	0.01	0.43	1.00	0.00	1.00
Final Sat.:	1600	3192	8	1600	2921	279	900	16	685	1600	0	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.39	0.38	0.02	0.46	0.45	0.07	0.13	0.13	0.03	0.00	0.02
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1001 Western Ave & Green Hills Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.673  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 47 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Western Ave						Green Hills Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	6	1224	0	0	1710	6	32	0	11	0	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	1224	0	0	1710	6	32	0	11	0	0	1
Added Vol:	0	15	0	0	21	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	1239	0	0	1731	6	32	0	11	0	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	1239	0	0	1731	6	32	0	11	0	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	1239	0	0	1731	6	32	0	11	0	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	1239	0	0	1731	6	32	0	11	0	0	1

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.99	0.01	0.74	0.00	0.26	0.00	0.00	1.00
Final Sat.:	1600	3200	0	1600	3189	11	1191	0	409	0	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.39	0.00	0.00	0.54	0.54	0.02	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****			****			****	****				

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Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1002 Western Ave & Avenida Aprenda  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.718  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx  
 Optimal Cycle: 52 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Western Ave						Avenida Aprenda																	
Approach:	North Bound			South Bound			East Bound			West Bound														
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Permitted						Permitted						Permitted											
Rights:	Include						Include						Include											
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	22	1200	0	0	1613	39	74	0	56	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	1200	0	0	1613	39	74	0	56	0	0	0
Added Vol:	0	15	0	0	21	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	1215	0	0	1634	39	74	0	56	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	1215	0	0	1634	39	74	0	56	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	1215	0	0	1634	39	74	0	56	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	1215	0	0	1634	39	74	0	56	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.95	0.05	0.57	0.00	0.43	0.00	1.00	0.00
Final Sat.:	1600	3200	0	1600	3125	75	911	0	689	0	1600	0

Capacity Analysis Module:

Vol/Sat:	0.01	0.38	0.00	0.00	0.52	0.52	0.05	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****				****			

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Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.848  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 79 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Western Ave						Delasonde Dr/Westmont Dr																						
Approach:	North Bound			South Bound			East Bound			West Bound																			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R									
Control:	Protected						Protected						Permitted																
Rights:	Include						Include						Include																
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	0	1	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	1	0	1	0

Volume Module:

Base Vol:	46	1005	174	196	1372	39	39	35	49	280	69	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	1005	174	196	1372	39	39	35	49	280	69	165
Added Vol:	0	15	0	0	21	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	1020	174	196	1393	39	39	35	49	280	69	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	1020	174	196	1393	39	39	35	49	280	69	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	1020	174	196	1393	39	39	35	49	280	69	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	1020	174	196	1393	39	39	35	49	280	69	165

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.71	0.29	1.00	1.95	0.05	0.32	0.28	0.40	1.00	1.00	1.00
Final Sat.:	1600	2734	466	1600	3113	87	507	455	637	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.37	0.37	0.12	0.45	0.45	0.02	0.08	0.08	0.17	0.04	0.10
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1004 Western Ave & Toscanini Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.763  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx  
 Optimal Cycle: 59 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Western Ave						Toscanini Dr														
Approach:	North Bound			South Bound			East Bound			West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Protected			Protected			Permitted			Permitted											
Rights:	Include			Include			Include			Include											
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1!	0	0	0	0	1!	0	0	

Volume Module:

Base Vol:	60	1162	68	48	1612	53	33	10	67	48	19	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	1162	68	48	1612	53	33	10	67	48	19	28
Added Vol:	0	15	0	0	21	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1177	68	48	1633	53	33	10	67	48	19	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1177	68	48	1633	53	33	10	67	48	19	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1177	68	48	1633	53	33	10	67	48	19	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1177	68	48	1633	53	33	10	67	48	19	28

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.89	0.11	1.00	1.94	0.06	0.30	0.09	0.61	0.51	0.20	0.29
Final Sat.:	1600	3025	175	1600	3099	101	480	145	975	808	320	472

Capacity Analysis Module:

Vol/Sat:	0.04	0.39	0.39	0.03	0.53	0.53	0.02	0.07	0.07	0.03	0.06	0.06
Crit Moves:	****			****			****			****		

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Marymount College Palos Verdes North - Traffic Study  
 Existing Plus Project Conditions  
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1005 Western Ave & Caddington Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.914  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 107 Level Of Service: E  
 \*\*\*\*\*

Street Name:	Western Ave						Caddington Dr													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	1	0	0	1

Volume Module:

Base Vol:	148	1138	1	40	1548	157	147	3	94	47	3	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	148	1138	1	40	1548	157	147	3	94	47	3	28
Added Vol:	0	15	0	0	21	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	148	1153	1	40	1569	157	147	3	94	47	3	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	148	1153	1	40	1569	157	147	3	94	47	3	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	1153	1	40	1569	157	147	3	94	47	3	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	148	1153	1	40	1569	157	147	3	94	47	3	28

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.82	0.18	0.60	0.01	0.39	0.94	0.06	1.00
Final Sat.:	1600	3197	3	1600	2909	291	964	20	616	1504	96	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.36	0.36	0.03	0.54	0.54	0.09	0.15	0.15	0.03	0.03	0.02
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Future No Project Conditions
MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1001 Western Ave & Green Hills Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Green Hills Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat and Crit Moves values.

Marymount College Palos Verdes North - Traffic Study
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Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1002 Western Ave & Avenida Aprenda
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Avenida Aprenda), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
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MD Afternoon Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.982
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 170 Level Of Service: E

\*\*\*\*\*

Table with columns for Street Name (Western Ave, Delasonde Dr/Westmont Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Future No Project Conditions
MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1004 Western Ave & Toscanini Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.797
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 66 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Toscanini Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study
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MD Afternoon Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1005 Western Ave & Caddington Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.922
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 112 Level Of Service: E
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Caddington Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study
Future No Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1001 Western Ave & Green Hills Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.865
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 85 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Green Hills Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table showing capacity analysis metrics like Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study
Future No Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1002 Western Ave & Avenida Aprenda
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.841
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 77 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Avenida Aprenda), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module: Table showing capacity analysis metrics like Vol/Sat and Crit Moves for each approach.

Marymount College Palos Verdes North - Traffic Study
Future No Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.994
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Western Ave and Delasonde Dr/Westmont Dr with various lane configurations and control types.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module: Table showing capacity analysis metrics such as Vol/Sat and Crit Moves for each approach.

Marymount College Palos Verdes North - Traffic Study
Future No Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1004 Western Ave & Toscanini Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.869
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Toscanini Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1005 Western Ave & Caddington Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 1.055
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Caddington Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1001 Western Ave & Green Hills Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.812  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 69 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Western Ave						Green Hills Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	87	1306	57	67	1312	65	27	0	4	0	0	2
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	93	1399	61	72	1405	70	29	0	4	0	0	2
Added Vol:	4	317	14	46	464	4	8	0	8	7	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	1716	75	118	1869	74	37	0	12	7	0	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	97	1716	75	118	1869	74	37	0	12	7	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	1716	75	118	1869	74	37	0	12	7	0	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	1716	75	118	1869	74	37	0	12	7	0	26

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.92	0.08	0.75	0.00	0.25	0.21	xxxx	0.79
Final Sat.:	1600	3066	134	1600	3079	121	1201	0	399	338	0	1262

Capacity Analysis Module:

Vol/Sat:	0.06	0.56	0.56	0.07	0.61	0.61	0.02	0.00	0.03	0.00	0.00	0.02
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
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MD Afternoon Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1002 Western Ave & Avenida Aprenda
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 64 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Avenida Aprenda), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each approach.

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study  
 Future With Project Conditions  
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Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.987  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 177 Level Of Service: E  
 \*\*\*\*\*

Street Name:	Western Ave					Delasonde Dr/Westmont Dr							
Approach:	North Bound		South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected		Protected			Permitted			Permitted				
Rights:	Include		Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	35	1189	150	144	1015	29	21	24	39	268	40	195
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	37	1273	161	154	1087	31	22	26	42	287	43	209
Added Vol:	0	234	0	53	237	0	0	0	0	1	0	100
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	1507	161	207	1324	31	22	26	42	288	43	309
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	1507	161	207	1324	31	22	26	42	288	43	309
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	1507	161	207	1324	31	22	26	42	288	43	309
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	1507	161	207	1324	31	22	26	42	288	43	309

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	1.95	0.05	0.25	0.29	0.46	1.00	1.00	1.00
Final Sat.:	1600	2892	308	1600	3127	73	400	457	743	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.52	0.52	0.13	0.42	0.42	0.01	0.06	0.06	0.18	0.03	0.19
Crit Moves:	****		****			****			****			

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Marymount College Palos Verdes North - Traffic Study  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1004 Western Ave & Toscanini Dr

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.802  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 67 Level Of Service: D

\*\*\*\*\*

Street Name:	Western Ave						Toscanini Dr														
Approach:	North Bound			South Bound			East Bound			West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Protected			Protected			Permitted			Permitted											
Rights:	Include			Include			Include			Include											
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0	

Volume Module:

Base Vol:	73	1223	58	45	1366	43	34	7	66	53	7	27
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	78	1310	62	48	1463	46	36	7	71	57	7	29
Added Vol:	0	234	0	0	238	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	1544	62	48	1701	46	36	7	71	57	7	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	78	1544	62	48	1701	46	36	7	71	57	7	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	1544	62	48	1701	46	36	7	71	57	7	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	1544	62	48	1701	46	36	7	71	57	7	29

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.95	0.05	0.32	0.06	0.62	0.61	0.08	0.31
Final Sat.:	1600	3076	124	1600	3116	84	508	105	987	975	129	497

Capacity Analysis Module:

Vol/Sat:	0.05	0.50	0.50	0.03	0.55	0.55	0.02	0.07	0.07	0.04	0.06	0.06
Crit Moves:	****			****			****			****		

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Marymount College Palos Verdes North - Traffic Study  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1005 Western Ave & Caddington Dr  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.927  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx  
 Optimal Cycle: 116 Level Of Service: E  
 \*\*\*\*\*

Street Name:	Western Ave						Caddington Dr													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	1	0	0	1

Volume Module:

Base Vol:	112	1214	3	39	1314	127	113	2	86	49	0	36
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	120	1300	3	42	1407	136	121	2	92	52	0	39
Added Vol:	18	224	0	0	222	16	10	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	138	1524	3	42	1629	152	131	2	109	52	0	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	138	1524	3	42	1629	152	131	2	109	52	0	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	1524	3	42	1629	152	131	2	109	52	0	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	138	1524	3	42	1629	152	131	2	109	52	0	39

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.83	0.17	0.54	0.01	0.45	1.00	0.00	1.00
Final Sat.:	1600	3193	7	1600	2927	273	865	14	721	1600	0	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.48	0.48	0.03	0.56	0.56	0.08	0.15	0.15	0.03	0.00	0.02
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Marymount College Palos Verdes North - Traffic Study
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1001 Western Ave & Green Hills Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.871
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Green Hills Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table showing capacity analysis metrics like Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1002 Western Ave & Avenida Aprenda
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.847
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 79 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Avenida Aprenda), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module: Table showing capacity analysis metrics like Vol/Sat and Crit Moves for each approach.

Marymount College Palos Verdes North - Traffic Study
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1003 Western Ave & Delasonde Dr/Westmont Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.998
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Western Ave and Delasonde Dr/Westmont Dr with various lane configurations and control types.

Volume Module table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each approach.

Marymount College Palos Verdes North - Traffic Study
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1004 Western Ave & Toscanini Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.875
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 89 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Toscanini Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

Marymount College Palos Verdes North - Traffic Study
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #1005 Western Ave & Caddington Dr
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 1.062
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

Table with columns for Street Name (Western Ave, Caddington Dr), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

## **CITY OF LOS ANGELES INTERSECTIONS**



# Level of Service Worksheet (Circular 212 Method)



<b>I/S #:</b>	North-South Street:	<b>Gaffey St</b>		Year of Count:	<b>2011</b>		Ambient Growth: (%):	<b>0.355</b>		Conducted by:	<b>KOA Corp</b>		Date:	<b>Dec-11</b>							
	<b>1006</b>	East-West Street:	<b>Westmont Dr</b>		Projection Year:	<b>2031</b>		Peak Hour:	<b>PM</b>		Reviewed by:			Project:	<b>Marymount (San Pedro Campus)</b>						
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity				4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0	4 2 2 3 2 0							
<b>MOVEMENT</b>				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
<b>NORTHBOUND</b>	Left	397	1	397	0	397	397	54	480	1	480	0	480	1	480	0	480	1	480		
	Left-Through																				
	Through	469	2	235	2	471	236	134	637	2	319	2	639	2	320	0	639	2	320		
	Through-Right																				
	Right	89	1	0	0	89	0	0	96	1	0	0	96	1	0	0	96	1	0		
	Left-Through-Right																				
	Left-Right																				
<b>SOUTHBOUND</b>	Left	29	1	29	0	29	29	0	31	1	31	0	31	1	31	0	31	1	31		
	Left-Through																				
	Through	734	1	430	6	740	433	171	959	1	547	6	965	1	550	0	965	1	550		
	Through-Right																				
	Right	125	0	125	0	125	125	1	135	0	135	0	135	0	135	0	135	0	135		
	Left-Through-Right																				
	Left-Right																				
<b>EASTBOUND</b>	Left	97	1	97	0	97	97	0	104	1	104	0	104	1	104	0	104	1	104		
	Left-Through																				
	Through	13	0	155	0	13	155	0	14	0	180	0	14	0	180	0	14	0	180		
	Through-Right																				
	Right	296	1	0	0	296	0	28	346	1	0	0	346	1	0	0	346	1	0		
	Left-Through-Right																				
	Left-Right																				
<b>WESTBOUND</b>	Left	222	1	122	0	222	122	0	238	1	131	0	238	1	131	0	238	1	131		
	Left-Through																				
	Through	21	0	122	0	21	122	0	23	0	131	0	23	0	131	0	23	0	131		
	Through-Right																				
	Right	79	1	50	0	79	50	0	85	1	54	0	85	1	54	0	85	1	54		
	Left-Through-Right																				
	Left-Right																				
<b>CRITICAL VOLUMES</b>				North-South: 827 East-West: 277 SUM: 1104	North-South: 830 East-West: 277 SUM: 1107	North-South: 1027 East-West: 311 SUM: 1338	North-South: 1030 East-West: 311 SUM: 1341	North-South: 1030 East-West: 311 SUM: 1341													
<b>VOLUME/CAPACITY (V/C) RATIO:</b>				0.803	0.805	0.973	0.975	0.975													
<b>V/C LESS ATSAC/ATCS ADJUSTMENT:</b>				<b>0.703</b>	<b>0.705</b>	<b>0.873</b>	<b>0.875</b>	<b>0.875</b>													
<b>LEVEL OF SERVICE (LOS):</b>				<b>C</b>	<b>C</b>	<b>D</b>	<b>D</b>	<b>D</b>													

REMARKS:

**PROJECT IMPACT**

Change in v/c due to project:	<b>0.002</b>	Δv/c after mitigation:	<b>0.002</b>
Significant impacted?	<b>NO</b>	Fully mitigated?	<b>N/A</b>





# Level of Service Worksheet (Circular 212 Method)



<b>I/S #:</b>	North-South Street:	<b>Gaffey St</b>		Year of Count:	<b>2011</b>		Ambient Growth: (%):	<b>0.355</b>		Conducted by:	<b>KOA Corp</b>		Date:	<b>Dec-11</b>							
	<b>1008</b>	East-West Street:	<b>Channel St</b>		Projection Year:	<b>2031</b>		Peak Hour:	<b>MD</b>		Reviewed by:			Project:	<b>Marymount (San Pedro Campus)</b>						
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity				3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0	3 0 0 3 2 0							
<b>MOVEMENT</b>				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
<b>NORTHBOUND</b>	←	Left	180	1	180	0	180	180	0	193	1	193	0	193	1	193	0	193	1	193	
	←	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Through	886	2	443	4	890	445	251	1202	2	601	4	1206	2	603	0	1206	2	603	
	→	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Right	185	1	145	0	185	145	0	199	1	156	0	199	1	156	0	199	1	156	
	→	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>SOUTHBOUND</b>	←	Left	435	2	239	0	435	239	0	467	2	257	0	467	2	257	0	467	2	257	
	←	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Through	741	1	381	4	745	383	196	991	1	512	4	995	1	514	0	995	1	514	
	→	Through-Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	
	→	Right	20	0	20	0	20	20	12	33	0	33	0	33	0	33	0	33	0	33	
	→	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>EASTBOUND</b>	←	Left	39	1	39	0	39	39	13	55	1	55	0	55	1	55	0	55	1	55	
	←	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Through	210	2	105	0	210	105	0	225	2	113	0	225	2	113	0	225	2	113	
	→	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Right	99	1	0	0	99	0	0	106	1	0	0	106	1	0	0	106	1	0	
	→	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>WESTBOUND</b>	←	Left	81	1	81	0	81	81	0	87	1	87	0	87	1	87	0	87	1	87	
	←	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Through	88	1	88	0	88	88	0	94	1	94	0	94	1	94	0	94	1	94	
	→	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Right	298	1	59	0	298	59	0	320	1	63	0	320	1	63	0	320	1	63	
	→	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	→	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>CRITICAL VOLUMES</b>				North-South: East-West: SUM:	682 186 868	North-South: East-West: SUM:	684 186 870	North-South: East-West: SUM:	858 200 1058	North-South: East-West: SUM:	860 200 1060	North-South: East-West: SUM:	860 200 1060								
<b>VOLUME/CAPACITY (V/C) RATIO:</b>				0.609	0.611	0.742	0.744	0.744	0.744												
<b>V/C LESS ATSAC/ATCS ADJUSTMENT:</b>				<b>0.509</b>	<b>0.511</b>	<b>0.642</b>	<b>0.644</b>	<b>0.644</b>	<b>0.644</b>												
<b>LEVEL OF SERVICE (LOS):</b>				<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>												

REMARKS:

**PROJECT IMPACT**

Change in v/c due to project:	<b>0.002</b>	Δv/c after mitigation:	<b>0.002</b>
Significant impacted?	<b>NO</b>	Fully mitigated?	<b>N/A</b>

