

**APPENDIX A**  
**TRAFFIC STUDY SCOPE OF WORK**

# MEMORANDUM

To: Mr. Eric Widstrand, P.E., T.E., P.T.O.E.      Date: December 14, 2016  
City Traffic Engineer – City of Long Beach

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From: Richard E. Barretto, P.E., Principal      LLG Ref: 2.16.3779.1  
Daniel A. Kloos, P.E., Senior Trans. Engineer  
Linscott, Law & Greenspan, Engineers

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Cc: Abraham Bandegan, T.E., P.T.P, Assistant City Traffic Engineer  
Craig Chalfant, Senior Planner,  
Long Beach Development Services, Planning Bureau  
Stephanie Eyestone-Jones, President  
Ashley Rogers, Principal Planner  
Eyestone Environmental

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Subject: **2<sup>nd</sup> + PCH Project, Long Beach**  
**Traffic Impact Analysis Scope of Work**

Engineers & Planners  
Traffic  
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Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit the following Traffic Study Scope of Work for the proposed 2<sup>nd</sup> + PCH Project, located in the City of Long Beach for your review and approval. The traffic study is required as part of the entitlement process of the proposed Project and will be included in the environmental document to be prepared for the Project.

## **Traffic Study Scope of Work**

The Traffic Impact Analysis for the proposed 2<sup>nd</sup> + PCH Project will satisfy the traffic impact requirements of the City of Long Beach and will be consistent with the requirements and procedures outlined in the most current *Congestion Management Program (CMP) for Los Angeles County*. Give the location of the subject property on Pacific Coast Highway (PCH), which is under the State of California Department of Transportation (Caltrans) jurisdiction, the requirements published in the current Caltrans *Guide for the Preparation of Traffic Impact Studies* is also considered.

**A. Project Location:** The proposed project site is bound by 2<sup>nd</sup> Street to the north, the Marina Shores Shopping Center to the south, Marina Drive to the west and Pacific Coast Highway to the east in the City of Long Beach, California. The Project site is in an urbanized area and is surrounded by a variety of retail and commercial uses, including the Alamitos Bay Marina to the west. The project site is currently occupied primarily by the 248-room Seaport Marina Hotel. Based on information provided by Eyestone Environmental and the City of Long Beach, 170-rooms are currently in operation (to be confirmed by City staff/Project Applicant). See attached **Figure I-1 – Vicinity Map**.



**B. Project Description:** The proposed 2<sup>nd</sup> + PCH Project is expected to redevelop the 10.77-acre site at 6400 East Pacific Coast Highway. According to information provided by Eyestone Environmental and the City of Long Beach, the Project is designated as Land Use District (LUD) No. 7, Mixed Use District, by the City’s General Plan and is zoned as Subarea 17 with Planned Development District 1 (PD-1), Southeast Area Development and Improvement Plan (SEADIP). Per the City’s General Plan, LUD No.7 uses included development of employment centers, inclusive of retail/commercial uses like that of the proposed Project and hence is consistent with the General Plan land use designation for the subject property. The SEADIP identifies commercial uses within Subarea 17, and with the exception of the general developments provisions applicable to the entire development area, does not include specific development and use standards for Subarea 17<sup>1</sup>.

The proposed development will include the construction of up to 245,000 square feet (SF) of retail/commercial floor area, including as shown below, 95,000 SF of retail uses, a 55,000 SF grocery store, a 25,000 SF fitness/health club, and 70,000 SF of restaurant uses consisting of 40,000 SF of full service dining, 25,000 SF of high-turnover restaurant/fast-food uses, and 5,000 SF of ready to eat/take-out food.

Land Use	Gross Floor Area (SF)
<input type="checkbox"/> Retail Sales	95,000 SF
<input type="checkbox"/> Grocery Store	55,000 SF
<input type="checkbox"/> Restaurant – Full Service	40,000 SF
<input type="checkbox"/> Restaurant – Fast Food	25,000 SF
<input type="checkbox"/> Restaurant – Ready To Eat	5,000 SF
<input type="checkbox"/> Fitness/Health Club	25,000 SF
<b>Total Floor Area (Maximum)</b>	<b>245,000 SF</b>

The Project would provide a total of 1,150 parking spaces within two main parking structures, including a second-level parking deck above some the single-story uses.

<sup>1</sup> The SEADIP states that Subarea 17 is fully developed in accordance with the Retail Center (CR) zone. Based on modifications for the City’s Zoning Regulations, the CR zone now corresponds to the City’s Community Commercial Automobile-Oriented (CCA) District. In accordance with the Long Beach Municipal Code, uses allowed in the CCA District include retail and service uses for an entire community, such as convenience and comparison shopping goods and associated services.

The Project is expected to be constructed in one phase over the next two years or so and completed by 2018. However, to provide a conservative assessment, Year 2019 has been utilized to assess the Project's potential traffic impacts at full occupancy of the retail center within an opening year traffic setting.

Access to the proposed Project will be provided via Pacific Coast Highway, 2<sup>nd</sup> Street and Marina Drive with the following assumptions. *See attached Figure 2-2 – Proposed Site Plan.*

Pacific Coast Highway:

- Driveway No. 1: Left-turn in/right-turn in and out driveway.
- Driveway No. 2: Full access signalized intersection, to be located opposite an existing driveway that now serves the Long Beach Marketplace.

Marina Drive:

- Driveway No. 3: Right-turn in and out driveway.
- Driveway No. 4: Right-turn in and out driveway.
- Driveway No. 5: Right-turn in and out driveway.

2<sup>nd</sup> Street:

- Driveway No. 6: Right-turn in and out driveway.

This proposed driveway at the signalized intersection on Pacific Coast Highway, to be located opposite a driveway that now serves the Long Beach Marketplace, will serve as the primary access for the Project. The improvements to be completed as a part of the proposed signalized driveway are subject to review and approval of the City of Long Beach and Caltrans.

**C. Traffic Study Intersections:** The twenty-seven (27) key study intersections listed below, located within the City of Long Beach and City of Seal Beach, plus the six (6) Project driveways, are locations that could potentially be impacted by the proposed Project and hence will be evaluated. The intersections were selected based on consideration of the “50 trip threshold” criteria and discussions with the City of Long Beach Traffic Engineer (*See Figure 1-1*).

1. Atherton Street at Bellflower Blvd. - (City of Long Beach)
2. Pacific Coast Hwy at Clark Avenue - (City of Long Beach)
3. Anaheim Street at Pacific Coast Hwy - (City of Long Beach)
4. Anaheim Street at Studebaker Road - (City of Long Beach)
5. 7th Street at Park Avenue - (City of Long Beach)
6. 7th Street at Pacific Coast Hwy - (City of Long Beach)
7. 7th Street at Bellflower Blvd - (City of Long Beach)
8. SR 22 WB Ramps at Studebaker Road - (City of Long Beach)

9. Pacific Coast Hwy at Bellflower Blvd - (City of Long Beach)
10. SR 22 EB Ramps at Studebaker Road - (City of Long Beach)
11. Loynes Drive at Pacific Coast Hwy - (City of Long Beach)
12. Loynes Drive at Studebaker Road - (City of Long Beach)
13. 2nd Street at Livingston Drive - (City of Long Beach)
14. 2nd Street at Bay Shore Avenue - (City of Long Beach)
15. 2nd Street at Naples Plaza - (City of Long Beach)
16. 2nd Street at Marina Drive - (City of Long Beach)
17. 2nd Street at Pacific Coast Hwy - (City of Long Beach)
18. 2nd Street at Shopkeeper Road - (City of Long Beach)
19. 2nd Street at Studebaker Road - (City of Long Beach)
20. Westminster Ave at Seal Beach Blvd - (City of Seal Beach)
21. Marina Drive at Studebaker Road - (City of Long Beach)
22. Studebaker Rd at Pacific Coast Hwy - (City of Long Beach)
23. Marina Drive at Pacific Coast Hwy - (City of Seal Beach)
24. Main/Bolsa Ave at Pacific Coast Hwy - (City of Seal Beach)
25. Seal Beach Blvd at Pacific Coast Hwy - (City of Seal Beach)
26. Seal Beach Blvd at Bolsa Ave - (City of Seal Beach)
27. Santiago Avenue at 7<sup>th</sup> Street - (City of Long Beach)

**D. Traffic Counts:** Weekday AM peak period (7:00 AM – 9:00 AM) and weekday PM peak period (4:00 PM – 6:00 PM) traffic counts for the above listed intersections were conducted in November 2016 when local area schools were in session. Traffic counts for the focused Saturday Midday peak period analysis will be based on summer traffic counts collected as part of a Draft TIA prepared for the site before the project was suspended. The Year 2013 Saturday traffic count data will be factored up by 3.0% (i.e. one percent per year for three years subject to approval by the City Traffic Engineer) to bring them up to current Year 2016 existing Saturday baseline traffic conditions.

**E. Project Traffic Generation:** The trip generation potential of the proposed Project was estimated using rates and/or equations contained in the 9<sup>th</sup> Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE), [Washington, D.C., 2012]. See attached **Table 5-1 – Project Traffic Generation Rates/Equations** and **Table 5-2 – Project Traffic Generation Forecast** for the existing and proposed Project uses.

Please note that for this analysis, trip credits for the existing (occupied) land uses on site (i.e. Seaport Marina Hotel) will be incorporated into the analysis. The existing trip generation potential for the Seaport Marina Hotel will be based on 170-rooms that are currently in operation. Therefore, the net project trips analyzed in the traffic study will total 13,666 weekday daily trips, 412 weekday

AM peak hour trips, 792 weekday PM peak hour trips, 17,611 weekend day (Saturday) daily trips and 1,439 weekend day (Saturday) Midday peak hour trips.

Please note that the aforementioned trip generation includes adjustments for pass-by, to account for trips that come directly from the everyday traffic stream on the adjoining streets (i.e. Pacific Coast Highway and 2<sup>nd</sup> Street). The following pass-by reduction factors were utilized:

- Retail Weekday (Daily: 10%, AM: 10% and PM: 34%)
- Retail Weekend (Daily: 10% and Midday: 26%)
- Quality Restaurant Weekday (Daily: 10%, AM: 0% and PM: 44%)
- Quality Restaurant Weekend (Daily: 10% and Midday: 22%)
- High-Turnover Restaurant Weekday (Daily: 10%, AM: 0% and PM: 43%)
- High-Turnover Restaurant Weekend (Daily: 10% and Midday: 22%)

**F. Project Traffic Distribution Pattern:** See attached *Figure 5-1*. Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- location of site access points in relation to the surrounding street system,
- the site's proximity to major traffic carriers and regional access routes,
- physical characteristics of the circulation system such as lane channelization and presence of traffic signals that affect travel patterns, and
- ingress/egress availability at the project site, plus parking layout and allocation within the subject property.

**G. Near-Term Cumulative Traffic:**

- Project Completion Year: 2019
- Ambient Growth Rate: 1.0% per year (to be confirmed/approved by the City Traffic Engineer; the information contained within the Los Angeles County CMP will also be considered in the determination of the appropriate ambient growth rate).
- Cumulative Projects: Obtain information regarding cumulative projects in the vicinity of the proposed project (i.e. within a 2-mile radius) from the City of Long Beach, City of Seal Beach and City of Los Alamitos.

In addition to development projects within the project study area, the Marina Drive "Complete Streets" improvement project will also be considered. Implementation of this project would include the installation of bike lanes, allowance for on-street parking along the east side, along the Project site frontage, realignment of an existing Alamitos Bay Marina driveway to align directly with Driveway No. 4, thus allowing for this intersection to be

signalized, and installation of a midblock pedestrian crosswalk across Marina Drive, just north of Driveway No. 3.

*Attachment 1* illustrates the proposed improvement to Marina Drive, inclusive of a new traffic signal at Driveway No. 4, plus a proposed layout of the signalized intersection of Pacific Coast Highway at Driveway No. 2.

**H. Analysis Scenarios:** A weekday AM and PM peak hour intersection capacity analysis will be conducted at the twenty-seven (27) key study intersections for the following scenarios:

- (a) Existing Traffic Conditions;
- (b) Existing Plus Project Traffic Conditions;
- (c) Scenario (b) with Improvements, if necessary;
- (d) Near-Term Cumulative (Opening Year 2019) Traffic Conditions (Existing plus Ambient Growth plus Cumulative Projects);
- (e) Near-Term Cumulative (Opening Year 2019) Plus Project Traffic Conditions; and;
- (f) Scenario (e) with Improvements, if necessary.

Based on discussions with City of Long Beach staff and review of the Project description and consistency with General Plan, the proposed Project is consistent with the existing land use designation for the site. Therefore, a long-term (General Plan Buildout) evaluation is not required. It is noted that per Caltrans guidelines, given a General Plan Amendment is not proposed, the traffic analysis scenarios listed above would only be required as well.

A Saturday Midday peak hour intersection capacity analysis will also be conducted at the following key study intersections for the same aforementioned traffic analysis scenarios:

- 13. 2nd Street at Livingston Drive - (City of Long Beach)
- 14. 2nd Street at Bay Shore Avenue - (City of Long Beach)
- 15. 2nd Street at Naples Plaza - (City of Long Beach)
- 16. 2nd Street at Marina Drive - (City of Long Beach)
- 17. 2nd Street at Pacific Coast Hwy - (City of Long Beach)
- 18. 2nd Street at Shopkeeper Road - (City of Long Beach)
- 19. 2nd Street at Studebaker Road - (City of Long Beach)
- 21. Marina Drive at Studebaker Road - (City of Long Beach)
- 22. Studebaker Rd at Pacific Coast Hwy - (City of Long Beach)

The LOS calculations will be based on the ICU method for signalized intersections and the Highway Capacity Manual method for unsignalized intersections. The project's potential impact will be based on the following significant impact criteria:

- The City of Long Beach considers LOS D to be the minimum acceptable service level that should be maintained during the peak commute hours, or the current LOS if that existing LOS is worse than LOS D (i.e. LOS E or F). For this study, a significant project impact is defined as an increase in the intersection volume-to-capacity (V/C) of 0.020 or greater at any location where the final (future) LOS is deficient or adverse (LOS E or worse); or a two percent (2%) change in delay at unsignalized intersections where the final LOS is E or F.
- The City Traffic Engineer will be consulted on the development of traffic mitigation measures at a scheduled meeting before such measures are completed and included in the traffic study.

#### **I. Other Issues:**

- Caltrans analysis will be performed using the *Highway Capacity Manual (HCM 2010) Methodology* for those intersections within the state's jurisdiction. The potential impacts associated with the proposed traffic signal on Pacific Coast Highway at Driveway No. 2/Long Beach Market Place, as well as the potential traffic signal on Marina Drive at Driveway No. 4/Alamitos Bay Marina will be assessed via the use of *Synchro 9.0 software*.
- Freeway analysis will be prepared consistent with Caltrans requirements, inclusive of the following three (3) State Route freeway segments, as requested by Caltrans staff:
  - 1) SR-22 from San Gabriel River Bridge to I-605/I-405 Interchange
  - 2) I-605 NB from just North of the I-605/I-405 Interchange to Katella Avenue
  - 3) I-405 NB and SB, from Bellflower Boulevard to Orange County Line.
- Marina Drive alternative access assessment for Project Driveway No. 4 based on the Marina Drive Complete Streets Project.
- VMT assessment.
- Conduct Traffic Signal Warrant Analyses for unsignalized study intersections based on existing and future traffic volumes.
- Evaluate Site Access and Internal Circulation, inclusive service/delivery truck access and circulation.
- Conduct a CMP compliance assessment.



We appreciate the opportunity to provide this scope of work. Should you have any questions, please call us at (949) 825-6175. Thank you.

**Approved by:**

\_\_\_\_\_  
City of Long Beach

\_\_\_\_\_  
Date

Attachments

DRAFT

TABLE 5-1  
PROJECT TRAFFIC GENERATION RATES/EQUATIONS<sup>2</sup>

ITE Land Use Code/Description	Time Period	Rates/Equations	Percent Entering	Percent Exiting
▪ 310: Hotel (TE/Room)	Daily	$T = 8.17 (X)$	50%	50%
	AM Peak	$T = 0.53 (X)$	59%	41%
	PM Peak	$T = 0.60 (X)$	51%	49%
	Saturday Daily	$T = 8.19 (X)$	50%	50%
	Saturday Midday	$T = 0.72 (X)$	56%	44%
▪ 820: Shopping Center (TE/1,000SF)	Daily	$LN (T) = 0.65 LN(X) + 5.83$	50%	50%
	AM Peak	$LN (T) = 0.61 LN(X) + 2.24$	62%	38%
	PM Peak	$LN (T) = 0.67 LN (X) + 3.31$	48%	52%
	Saturday Daily	$LN (T) = 0.63 LN(X) + 6.23$	50%	50%
	Saturday Midday	$LN (T) = 0.65 LN(X) + 3.78$	52%	48%
▪ 931: Quality Restaurant (TE/1,000 SF)	Daily	$T = 89.95 (X)$	50%	50%
	AM Peak	$T = 0.81 (X)$	50%	50%
	PM Peak	$T = 7.49 (X)$	67%	33%
	Saturday Daily	$T = 94.36 (X)$	50%	50%
	Saturday Midday	$T = 10.82 (X)$	59%	41%
▪ 932: High-Turnover (Sit-Down) Restaurant (TE/1,000 SF)	Daily	$T = 127.15 (X)$	50%	50%
	AM Peak	$T = 10.81 (X)$	55%	45%
	PM Peak	$T = 9.85 (X)$	60%	40%
	Saturday Daily	$T = 158.37 (X)$	50%	50%
	Saturday Midday	$T = 14.07 (X)$	53%	47%

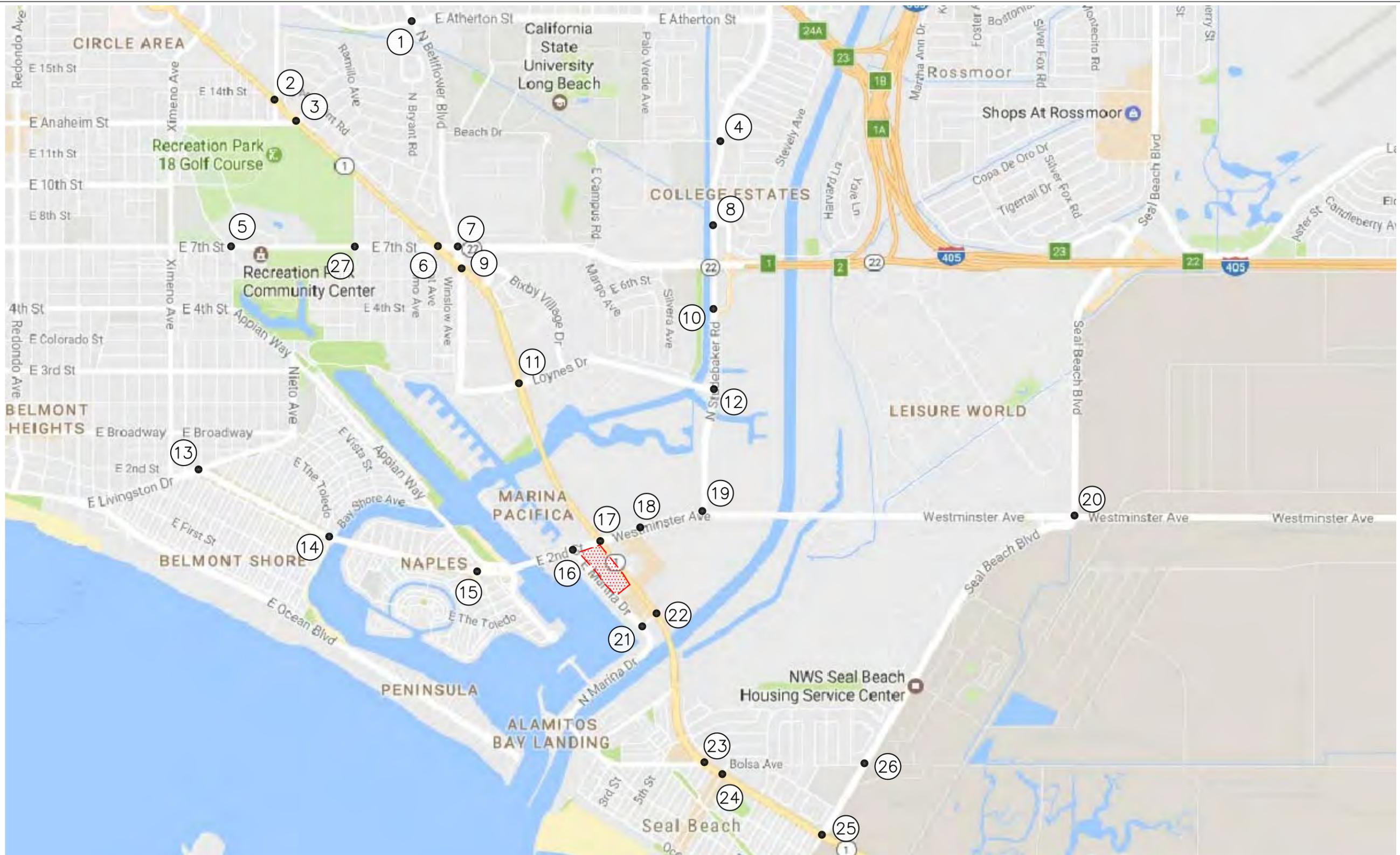
<sup>2</sup> Source: *Trip Generation*, 9<sup>th</sup> Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012).

TABLE 5-2  
PROJECT TRAFFIC GENERATION FORECAST<sup>3</sup>

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour			Saturday Midday			
		Enter	Exit	Total	Enter	Exit	Total	Daily	Enter	Exit	Total
<b><i>Existing Land Use:</i></b>											
▪ Hotel (170 Rooms)	1,389	53	37	90	52	50	102	1,392	68	54	122
<b><i>Proposed Project Uses:</i></b>											
▪ Retail (180,000 SF)	9,951	138	85	223	426	462	888	13,381	666	615	1,281
Pass-By Reduction <sup>4</sup>	<u>-995</u>	<u>-14</u>	<u>-9</u>	<u>-23</u>	<u>-145</u>	<u>-157</u>	<u>-302</u>	<u>-1,338</u>	<u>-173</u>	<u>-160</u>	<u>-333</u>
<b>Subtotal</b>	<b>8,956</b>	<b>124</b>	<b>76</b>	<b>200</b>	<b>281</b>	<b>305</b>	<b>586</b>	<b>12,043</b>	<b>493</b>	<b>455</b>	<b>948</b>
▪ Quality Restaurant (40,000 SF)	3,598	16	16	32	201	99	300	3,774	255	178	433
Pass-By Reduction <sup>3</sup>	<u>-360</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>-88</u>	<u>-44</u>	<u>-132</u>	<u>-377</u>	<u>-56</u>	<u>-39</u>	<u>-95</u>
<b>Subtotal</b>	<b>3,238</b>	<b>16</b>	<b>16</b>	<b>32</b>	<b>113</b>	<b>55</b>	<b>168</b>	<b>3,397</b>	<b>199</b>	<b>139</b>	<b>338</b>
▪ High-Turnover Restaurant (25,000 SF)	3,179	149	121	270	148	98	246	3,959	187	165	352
Pass-By Reduction <sup>3</sup>	<u>-318</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>-64</u>	<u>-42</u>	<u>-106</u>	<u>-396</u>	<u>-41</u>	<u>-36</u>	<u>-77</u>
<b>Subtotal</b>	<b>2,861</b>	<b>149</b>	<b>121</b>	<b>270</b>	<b>84</b>	<b>56</b>	<b>140</b>	<b>3,563</b>	<b>146</b>	<b>129</b>	<b>275</b>
<b>Total Project Trip Generation</b>	<b>15,055</b>	<b>289</b>	<b>213</b>	<b>502</b>	<b>478</b>	<b>416</b>	<b>894</b>	<b>19,003</b>	<b>838</b>	<b>723</b>	<b>1,561</b>
<b>Less Existing Trip Generation</b>	<b>-1,389</b>	<b>-53</b>	<b>-37</b>	<b>-90</b>	<b>-52</b>	<b>-50</b>	<b>-102</b>	<b>-1,392</b>	<b>-68</b>	<b>-54</b>	<b>-122</b>
<b>Total Net Project Trip Generation</b>	<b>13,666</b>	<b>236</b>	<b>176</b>	<b>412</b>	<b>426</b>	<b>366</b>	<b>792</b>	<b>17,611</b>	<b>770</b>	<b>669</b>	<b>1,439</b>

<sup>3</sup> Source: *Trip Generation*, 9<sup>th</sup> Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012).

<sup>4</sup> Source: *Trip Generation Handbook*, Institute of Transportation Engineers, (ITE) [Washington, D.C. (2012)]. Pass-by reductions for the retail, quality restaurant and high-turnover restaurant project uses are as follows:  
 ➤ Retail: Weekday (Daily: 10%, AM: 10% and PM: 34%); Weekend (Daily: 10% and Midday: 26%)  
 ➤ Quality Restaurant: Weekday (Daily: 10%, AM: 0% and PM: 44%); Weekend (Daily: 10% and Midday: 22%)  
 ➤ High-Turnover Restaurant: Weekday (Daily: 10%, AM: 0% and PM: 43%); Weekend (Daily: 10% and Midday: 22%)



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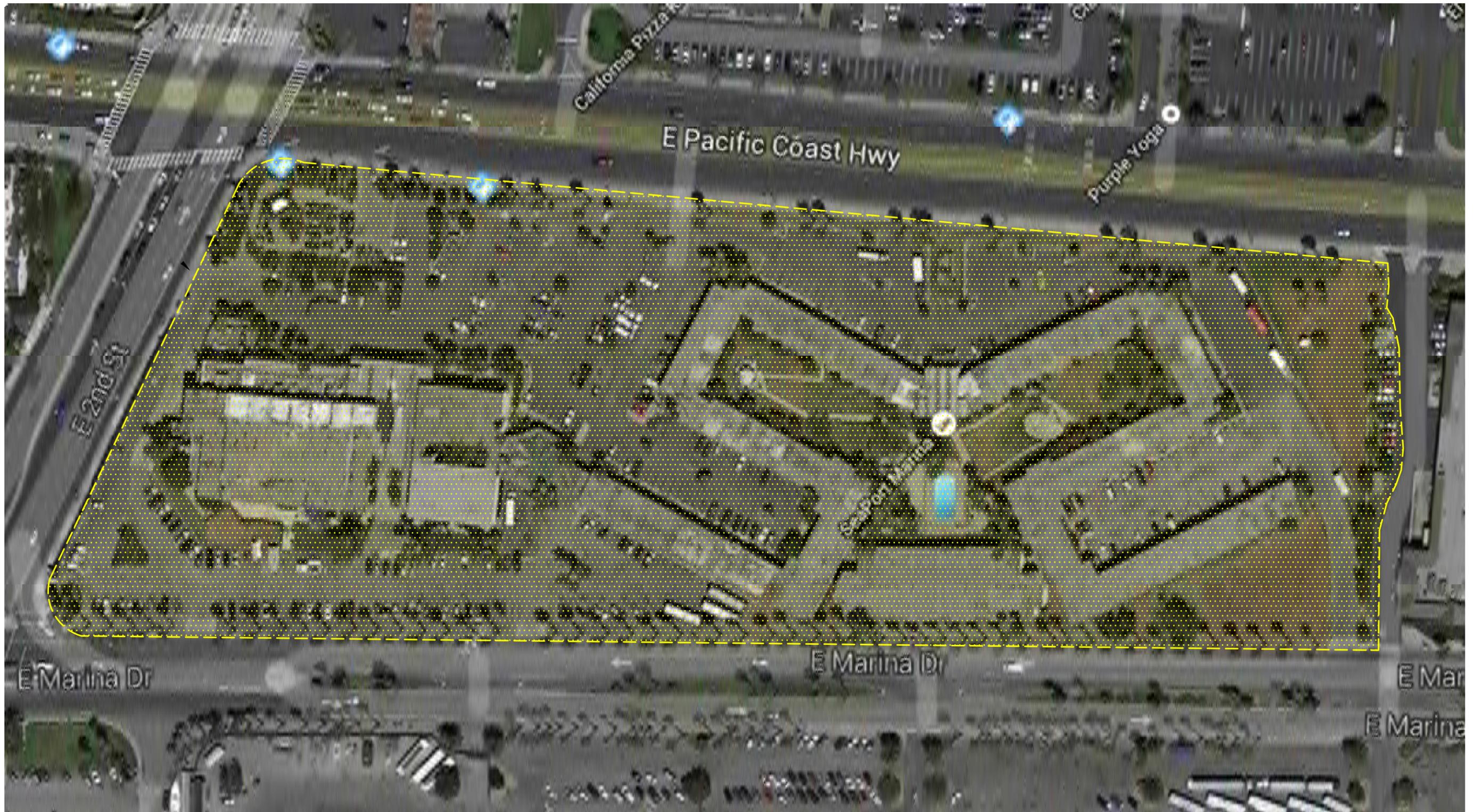
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KEY

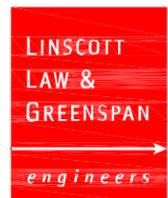
- = STUDY INTERSECTION
- = PROJECT SITE

**FIGURE 1-1**

VICINITY MAP  
2ND + PCH PROJECT, LONG BEACH



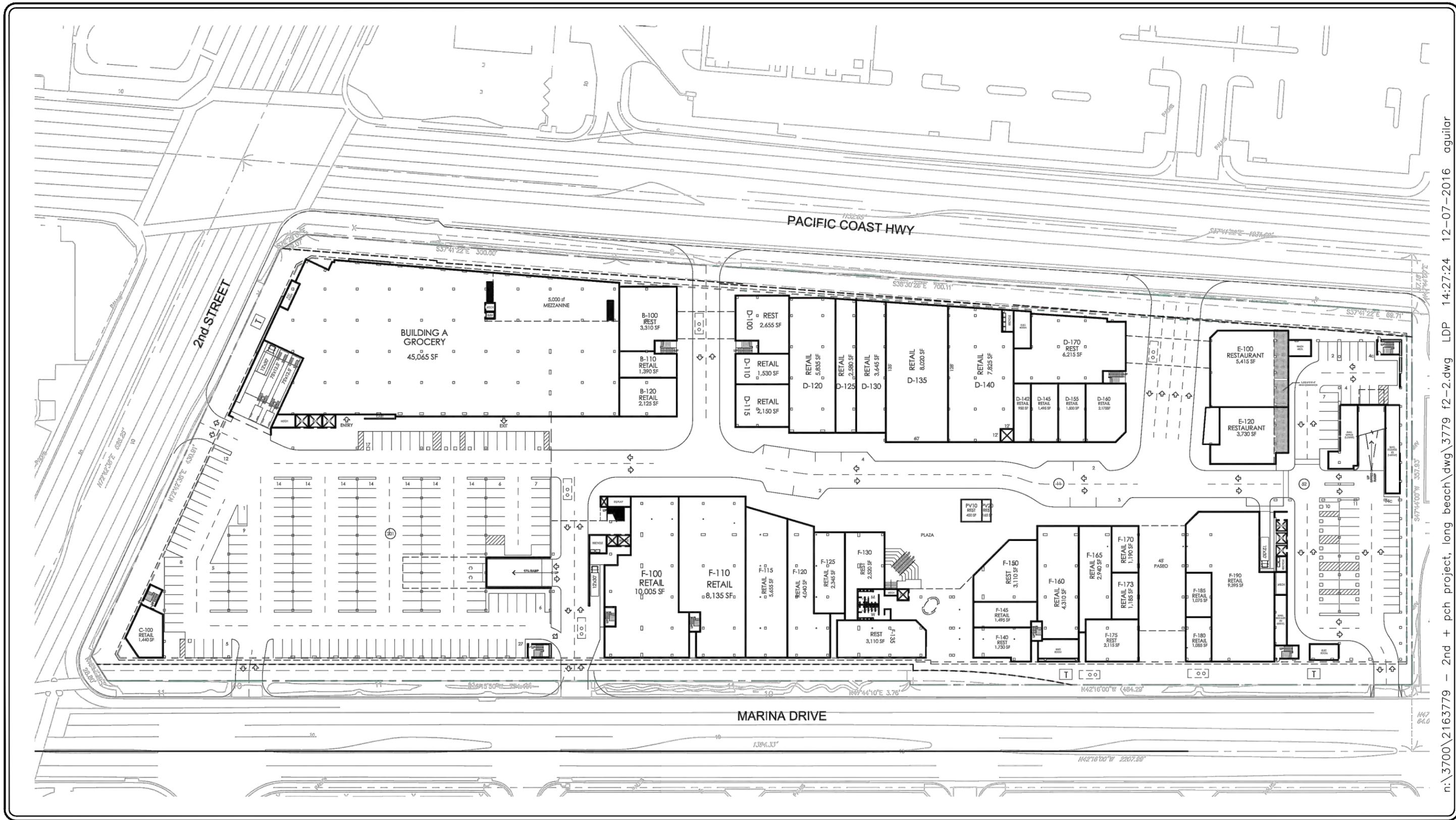
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SOURCE: GOOGLE  
 KEY  
 [Yellow dotted pattern] = PROJECT SITE

FIGURE 2-1

EXISTING AERIAL SITE PLAN  
 2ND + PCH PROJECT, LONG BEACH



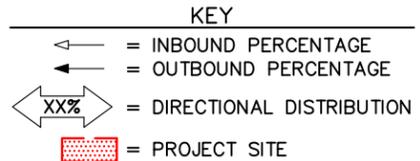
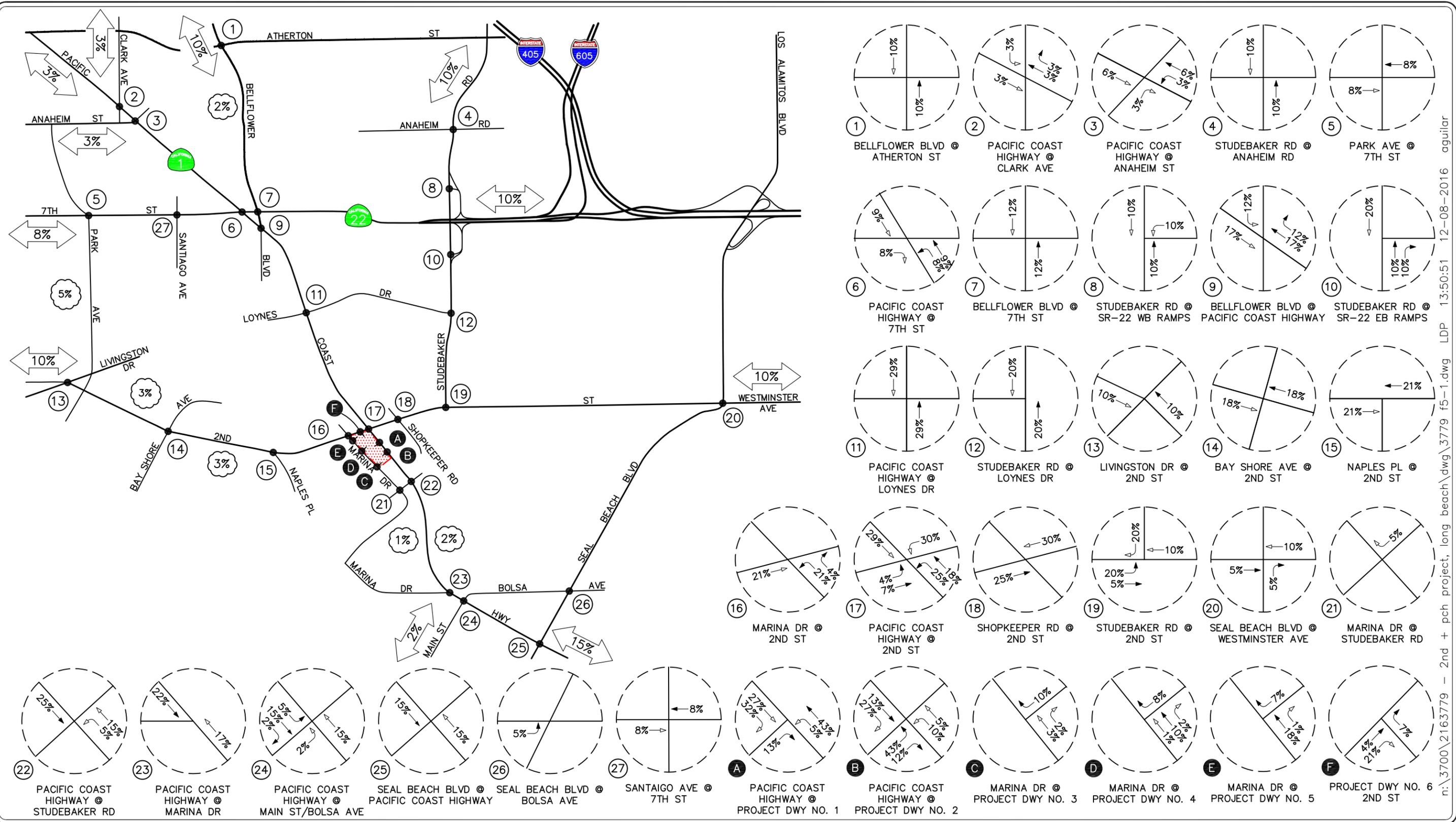
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SOURCE: CENTRAL PROPERTIES, INC.



# FIGURE 2-2

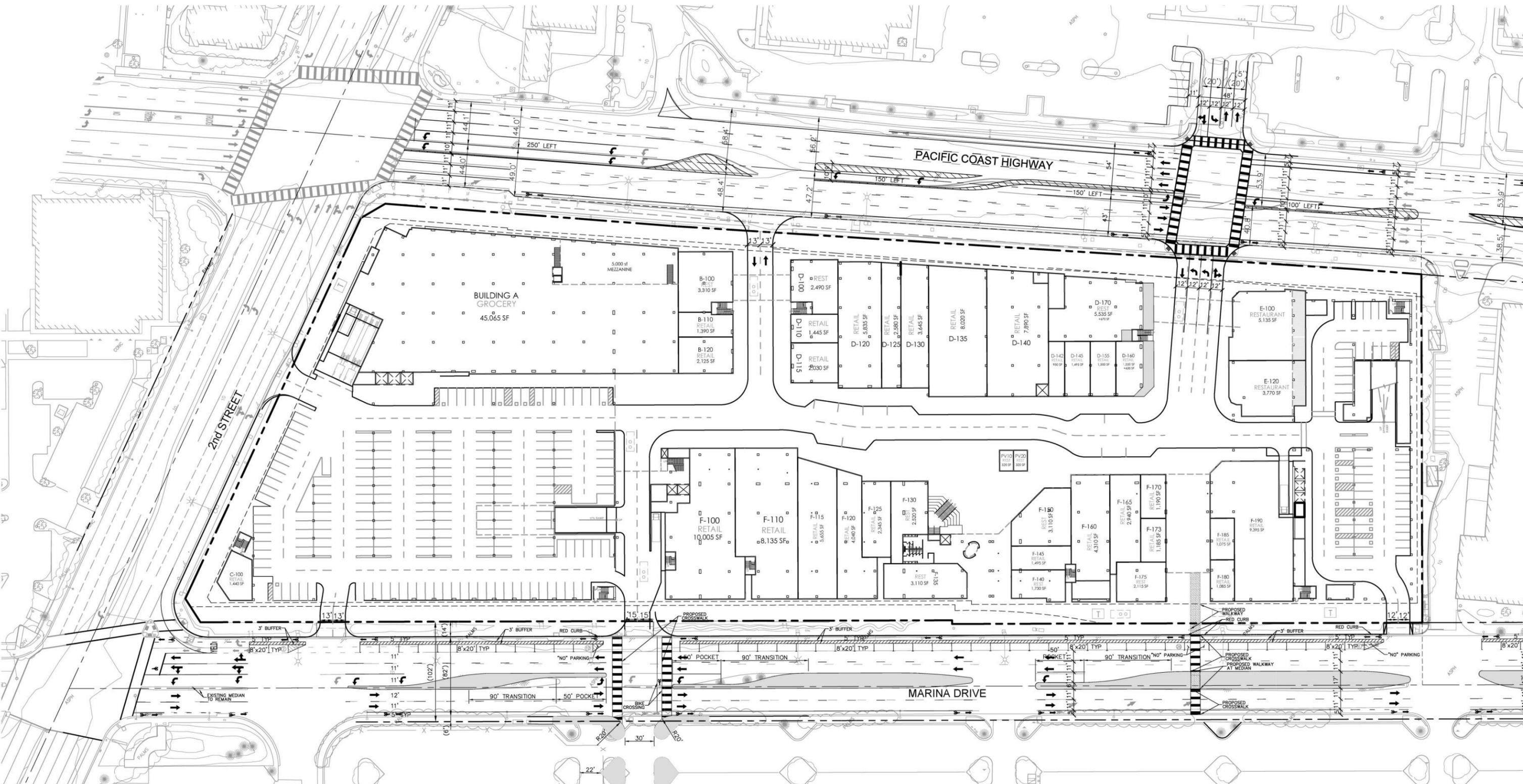
PROPOSED SITE PLAN  
2ND + PCH PROJECT, LONG BEACH



**FIGURE 5-1**

**PROJECT TRAFFIC DISTRIBUTION PATTERN**  
2ND + PCH PROJECT, LONG BEACH

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GRAPHIC SCALE  
 Note: For reduced sized prints, original scale is in inches

**LEGEND**

- CURB MEDIAN
- STRIPED MEDIAN

# ATTACHMENT 1 Project Site Plan and External Configurations

**APPENDIX B**  
**EXISTING TRAFFIC COUNT DATA**

### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

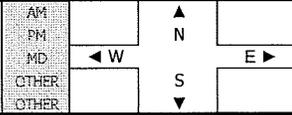
**DATE:**  
Tue, Nov 15, 16

**LOCATION:**  
NORTH & SOUTH:  
EAST & WEST:

Long Beach  
Bellflower  
Atherton

**PROJECT #:** SC1123  
**LOCATION #:** 1  
**CONTROL:** SIGNAL

NOTES:

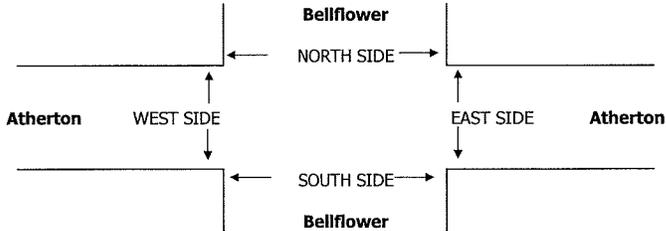


Add U-Turns to Left Turns

	NORTHBOUND Bellflower			SOUTHBOUND Bellflower			EASTBOUND Atherton			WESTBOUND Atherton			TOTAL
	NL 1	NT 3	NR 1	SL 2	ST 3	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
7:00 AM	3	112	18	44	227	6	13	56	26	31	48	11	595
7:15 AM	8	94	33	90	303	20	14	128	36	33	90	10	859
7:30 AM	22	133	43	136	275	22	24	177	41	37	76	24	1,010
7:45 AM	19	159	98	128	350	28	8	190	52	51	87	18	1,188
8:00 AM	16	187	49	113	233	33	32	155	44	56	88	40	1,046
8:15 AM	18	194	43	65	202	27	31	106	31	31	70	21	839
8:30 AM	13	158	40	82	219	30	32	144	23	38	71	18	868
8:45 AM	21	181	55	107	228	36	31	150	29	41	75	13	967
VOLUMES	120	1,218	379	765	2,037	202	185	1,106	282	318	605	155	7,372
APPROACH %	7%	71%	22%	25%	68%	7%	12%	70%	18%	29%	56%	14%	
APP/DEPART	1,717	/	1,559	3,004	/	2,633	1,573	/	2,253	1,078	/	927	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	65	573	223	467	1,161	103	78	650	173	177	341	92	4,103
APPROACH %	8%	67%	26%	27%	67%	6%	9%	72%	19%	29%	56%	15%	
PEAK HR FACTOR	0.780			0.855			0.901			0.829			0.863
APP/DEPART	861	/	744	1,731	/	1,507	901	/	1,343	610	/	509	0
4:00 PM	39	291	54	24	200	53	37	105	31	57	134	63	1,088
4:15 PM	41	258	51	33	210	51	36	86	35	45	106	42	994
4:30 PM	39	243	53	48	180	33	44	128	28	46	134	48	1,024
4:45 PM	35	285	47	48	227	47	33	129	35	50	138	67	1,141
5:00 PM	46	270	50	33	199	36	45	103	32	60	186	69	1,129
5:15 PM	36	219	57	40	236	48	42	117	54	49	133	62	1,093
5:30 PM	40	207	66	37	188	44	44	116	37	50	141	52	1,022
5:45 PM	26	204	41	29	234	55	29	108	27	46	118	28	945
VOLUMES	302	1,977	419	292	1,674	367	310	892	279	403	1,090	431	8,436
APPROACH %	11%	73%	16%	13%	72%	16%	21%	60%	19%	21%	57%	22%	
APP/DEPART	2,698	/	2,719	2,333	/	2,349	1,481	/	1,609	1,924	/	1,759	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	156	1,017	207	169	842	164	164	477	149	205	591	246	4,387
APPROACH %	11%	74%	15%	14%	72%	14%	21%	60%	19%	20%	57%	24%	
PEAK HR FACTOR	0.940			0.907			0.927			0.827			0.961
APP/DEPART	1,380	/	1,428	1,175	/	1,193	790	/	855	1,042	/	911	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	1	0	0	1
0	0	0	2	2
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	4	5

0	0	0	2	2
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
0	0	0	2	2
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	1	0	7	8



	AM	PM
7:00 AM		
7:15 AM		
7:30 AM		
7:45 AM		
8:00 AM		
8:15 AM		
8:30 AM		
8:45 AM		
TOTAL		
4:00 PM		
4:15 PM		
4:30 PM		
4:45 PM		
5:00 PM		
5:15 PM		
5:30 PM		
5:45 PM		
TOTAL		

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	3	1	0	4
2	4	1	1	8
1	12	2	4	19
2	11	2	3	18
2	5	5	6	18
0	5	2	2	9
5	12	7	3	27
5	2	3	7	17
17	54	23	26	120
5	8	3	9	25
2	13	8	3	26
7	10	4	3	24
2	8	4	1	15
10	4	4	0	18
0	7	5	2	14
1	7	5	0	13
0	9	5	1	15
27	66	38	19	150

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	3	1	0	4
1	4	1	0	6
1	4	2	4	11
1	4	1	3	9
0	1	2	6	9
0	2	1	1	4
3	7	3	2	15
4	1	3	7	15
10	26	14	23	73
4	5	1	7	17
1	12	6	2	21
5	8	4	3	20
1	4	3	1	9
8	2	3	0	13
0	5	4	2	11
0	5	3	0	8
0	9	3	1	13
19	50	27	16	112

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
1	0	0	1	2
0	8	0	0	8
1	7	1	0	9
2	4	3	0	9
0	3	1	1	5
2	5	4	1	12
1	1	0	0	2
7	28	9	3	47
1	3	2	2	8
1	1	2	1	5
2	2	0	0	4
1	4	1	0	6
2	2	1	0	5
0	2	1	0	3
1	2	2	0	5
0	0	2	0	2
8	16	11	3	38

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Pacific Coast Clark	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 2 <b>CONTROL:</b> SIGNAL
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<b>NOTES:</b>	AM	
	PM	
	MD	
	OTHER	
	OTHER	

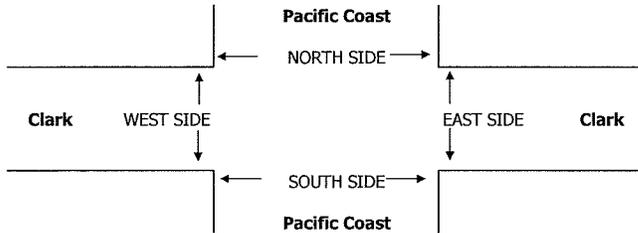
Add U-Turns to Left Turns

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

U-TURNS				
NB	SB	EB	WB	TTL

<b>AM</b>	7:00 AM	2	285	34	14	204	2	2	67	4	17	39	3	673
	7:15 AM	0	280	34	21	201	3	1	122	4	17	88	12	783
	7:30 AM	3	303	46	26	210	12	1	117	1	19	115	7	860
	7:45 AM	1	299	43	21	209	6	2	153	6	22	85	10	857
	8:00 AM	1	363	36	19	134	3	3	111	2	18	117	14	821
	8:15 AM	3	315	28	17	160	3	0	122	2	15	80	15	760
	8:30 AM	3	257	44	28	145	11	2	130	1	16	77	14	728
	8:45 AM	1	250	29	20	131	7	2	107	3	20	105	24	699
	<b>VOLUMES</b>	14	2,352	294	166	1,394	47	13	929	23	144	706	99	6,181
	<b>APPROACH %</b>	1%	88%	11%	10%	87%	3%	1%	96%	2%	15%	74%	10%	
<b>APP/DEPART</b>	2,660	/	2,467	1,607	/	1,563	965	/	1,386	949	/	765	0	
<b>BEGIN PEAK HR</b>	7:15 AM													
<b>VOLUMES</b>	5	1,245	159	87	754	24	7	503	13	76	405	43	3,321	
<b>APPROACH %</b>	0%	88%	11%	10%	87%	3%	1%	96%	2%	15%	77%	8%		
<b>PEAK HR FACTOR</b>	0.881													
<b>APP/DEPART</b>	1,409	/	1,296	865	/	843	523	/	748	524	/	434	0	
<b>PM</b>	4:00 PM	2	204	41	25	217	7	12	124	10	32	106	28	808
	4:15 PM	3	188	28	32	229	4	6	129	5	26	103	22	775
	4:30 PM	4	205	38	27	227	2	7	133	11	41	92	20	807
	4:45 PM	6	193	36	24	253	3	6	132	8	28	97	22	808
	5:00 PM	6	202	39	32	226	2	11	166	17	28	98	31	858
	5:15 PM	2	199	35	27	252	3	10	166	13	35	111	33	886
	5:30 PM	10	218	31	28	230	6	3	154	6	30	102	27	845
	5:45 PM	3	211	32	25	221	1	9	130	6	35	115	22	810
	<b>VOLUMES</b>	36	1,620	280	220	1,855	28	64	1,134	76	255	824	205	6,597
	<b>APPROACH %</b>	2%	84%	14%	10%	88%	1%	5%	89%	6%	20%	64%	16%	
<b>APP/DEPART</b>	1,936	/	1,896	2,103	/	2,188	1,274	/	1,627	1,284	/	886	0	
<b>BEGIN PEAK HR</b>	5:00 PM													
<b>VOLUMES</b>	21	830	137	112	929	12	33	616	42	128	426	113	3,399	
<b>APPROACH %</b>	2%	84%	14%	11%	88%	1%	5%	89%	6%	19%	64%	17%		
<b>PEAK HR FACTOR</b>	0.954													
<b>APP/DEPART</b>	988	/	981	1,053	/	1,100	691	/	860	667	/	458	0	

0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
1	2	0	0	3
0	0	0	0	0
1	0	0	0	1
2	3	0	0	5
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
1	0	0	0	1
0	0	0	0	0
0	4	0	0	4
1	1	0	0	2
0	0	0	0	0
2	7	0	0	9



<b>AM</b>	7:00 AM	2	0	0	2	4
	7:15 AM	0	3	1	0	4
	7:30 AM	1	3	2	1	7
	7:45 AM	0	1	1	4	6
	8:00 AM	1	4	2	0	7
	8:15 AM	0	3	5	2	10
	8:30 AM	0	1	2	0	3
	8:45 AM	1	3	3	1	8
	<b>TOTAL</b>	5	18	16	10	49
	<b>PM</b>	4:00 PM	0	1	6	0
4:15 PM		2	3	10	1	16
4:30 PM		3	4	8	3	18
4:45 PM		5	1	2	1	9
5:00 PM		2	6	7	4	19
5:15 PM		0	0	1	0	1
5:30 PM		3	5	7	2	17
5:45 PM		0	2	10	4	16
<b>TOTAL</b>		15	22	51	15	103

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	2	4
0	3	1	0	4
1	3	2	1	7
0	1	1	4	6
1	4	2	0	7
0	3	5	2	10
0	1	2	0	3
1	3	3	1	8
5	18	16	10	49
0	1	6	0	7
2	3	10	1	16
3	4	8	3	18
5	1	2	1	9
2	6	7	4	19
0	0	1	0	1
3	5	7	2	17
0	2	10	4	16
15	22	51	15	103

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	0	2
0	2	1	0	3
1	2	2	0	5
0	1	1	1	3
1	4	2	0	7
0	3	5	2	10
0	1	1	0	2
1	3	3	1	8
5	16	15	4	40
0	1	5	0	6
2	2	9	1	14
1	4	8	1	14
3	1	2	0	6
2	5	7	3	17
0	0	1	0	1
1	5	6	2	14
0	2	8	2	12
9	20	46	9	84

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	2	2
0	1	0	0	1
0	1	0	1	2
0	0	0	3	3
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	2	1	6	9
0	0	1	0	1
0	1	1	0	2
2	0	0	2	4
2	0	0	1	3
0	1	0	1	2
0	0	0	0	0
2	0	1	0	3
0	0	2	2	4
6	2	5	6	19

### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Pacific Coast Anaheim	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 3 <b>CONTROL:</b> SIGNAL
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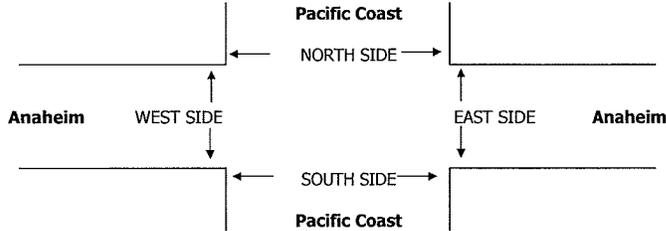
<b>NOTES:</b>  AM/PM NB queue	<table border="1" style="margin: auto;"> <tr><td>AM</td><td>▲</td><td></td></tr> <tr><td>PM</td><td></td><td>▲</td></tr> <tr><td>MD</td><td>←</td><td>W</td></tr> <tr><td>OTHER</td><td></td><td></td></tr> <tr><td>OTHER</td><td></td><td></td></tr> <tr><td></td><td>S</td><td>▶</td></tr> <tr><td></td><td>▼</td><td></td></tr> </table>	AM	▲		PM		▲	MD	←	W	OTHER			OTHER				S	▶		▼	
AM	▲																					
PM		▲																				
MD	←	W																				
OTHER																						
OTHER																						
	S	▶																				
	▼																					

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Pacific Coast			Pacific Coast			Anaheim			Anaheim			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 2	SR 0	EL 0.5	ET 1.5	ER 1	WL 0.5	WT 1.5	WR 1	
7:00 AM	78	268	9	6	208	6	5	36	158	5	19	14	812
7:15 AM	104	326	9	15	191	5	4	35	171	7	21	10	898
7:30 AM	91	298	7	25	203	2	5	44	123	16	29	11	854
7:45 AM	97	303	15	31	215	8	10	79	141	7	31	12	949
8:00 AM	99	398	18	15	147	5	4	47	119	8	28	23	911
8:15 AM	92	366	23	15	146	8	4	32	97	6	18	11	818
8:30 AM	87	270	12	15	141	1	3	46	112	10	33	15	745
8:45 AM	89	281	12	17	139	5	10	55	108	8	23	13	760
<b>VOLUMES</b>	737	2,510	105	139	1,390	40	45	374	1,029	67	202	109	6,747
<b>APPROACH %</b>	22%	75%	3%	9%	89%	3%	3%	26%	71%	18%	53%	29%	
<b>APP/DEPART</b>	3,352	/	2,664	1,569	/	2,486	1,448	/	617	378	/	980	0
<b>BEGIN PEAK HR</b>	7:15 AM												
<b>VOLUMES</b>	391	1,325	49	86	756	20	23	205	554	38	109	56	3,612
<b>APPROACH %</b>	22%	75%	3%	10%	88%	2%	3%	26%	71%	19%	54%	28%	
<b>PEAK HR FACTOR</b>	0.857			0.848			0.850			0.860			0.952
<b>APP/DEPART</b>	1,765	/	1,403	862	/	1,348	782	/	340	203	/	521	0
4:00 PM	111	190	15	27	222	4	11	30	126	8	49	25	818
4:15 PM	101	226	14	11	237	7	13	35	145	14	43	21	867
4:30 PM	95	197	14	17	271	9	9	38	121	11	27	20	829
4:45 PM	96	195	21	11	259	2	10	40	137	14	53	25	863
5:00 PM	104	207	15	16	260	7	11	46	122	15	64	23	890
5:15 PM	95	189	8	14	275	8	19	44	120	9	56	19	856
5:30 PM	88	220	23	8	245	4	14	48	136	9	51	24	870
5:45 PM	101	243	18	15	262	7	12	46	126	16	47	18	911
<b>VOLUMES</b>	791	1,667	128	119	2,031	48	99	327	1,033	96	390	175	6,904
<b>APPROACH %</b>	31%	64%	5%	5%	92%	2%	7%	22%	71%	15%	59%	26%	
<b>APP/DEPART</b>	2,586	/	1,950	2,198	/	3,160	1,459	/	565	661	/	1,229	0
<b>BEGIN PEAK HR</b>	5:00 PM												
<b>VOLUMES</b>	388	859	64	53	1,042	26	56	184	504	49	218	84	3,527
<b>APPROACH %</b>	30%	66%	5%	5%	93%	2%	8%	25%	68%	14%	62%	24%	
<b>PEAK HR FACTOR</b>	0.905			0.944			0.939			0.860			0.968
<b>APP/DEPART</b>	1,311	/	1,004	1,121	/	1,595	744	/	296	351	/	632	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	1	0	2

0	0	0	0	0
0	0	0	0	0
0	3	0	0	3
0	1	0	0	1
0	1	0	0	1
0	2	0	0	2
0	1	0	0	1
0	1	0	0	1
0	9	0	0	9



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	3	0	1	3	7
	7:15 AM	0	4	0	3	7
	7:30 AM	1	1	1	1	4
	7:45 AM	7	5	1	4	17
	8:00 AM	1	4	1	1	7
	8:15 AM	1	0	0	1	2
	8:30 AM	3	3	2	2	10
	8:45 AM	5	0	0	2	7
<b>TOTAL</b>		21	17	6	17	61
PM	4:00 PM	5	1	0	0	6
	4:15 PM	4	0	2	0	6
	4:30 PM	4	2	0	1	7
	4:45 PM	1	3	0	1	5
	5:00 PM	9	2	1	0	12
	5:15 PM	0	3	0	2	5
	5:30 PM	1	0	0	0	1
	5:45 PM	1	1	0	5	7
<b>TOTAL</b>		25	12	3	9	49

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	2	0	1	1	4
	7:15 AM	0	2	0	1	3
	7:30 AM	1	1	1	1	4
	7:45 AM	5	1	0	0	6
	8:00 AM	1	1	0	1	3
	8:15 AM	1	0	0	1	2
	8:30 AM	3	2	1	1	7
	8:45 AM	1	0	0	0	1
<b>TOTAL</b>		14	7	3	6	30
PM	4:00 PM	5	1	0	0	6
	4:15 PM	3	0	0	0	3
	4:30 PM	3	2	0	0	5
	4:45 PM	1	1	0	0	2
	5:00 PM	5	1	1	0	7
	5:15 PM	0	1	0	1	2
	5:30 PM	1	0	0	0	1
	5:45 PM	1	0	0	2	3
<b>TOTAL</b>		19	6	1	3	29

		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	0	0	2	3
	7:15 AM	0	2	0	2	4
	7:30 AM	0	0	0	0	0
	7:45 AM	2	4	1	4	11
	8:00 AM	0	3	1	0	4
	8:15 AM	0	0	0	0	0
	8:30 AM	0	1	1	1	3
	8:45 AM	4	0	0	2	6
<b>TOTAL</b>		7	10	3	11	31
PM	4:00 PM	0	0	0	0	0
	4:15 PM	1	0	2	0	3
	4:30 PM	1	0	0	1	2
	4:45 PM	0	2	0	1	3
	5:00 PM	4	1	0	0	5
	5:15 PM	0	2	0	1	3
	5:30 PM	0	0	0	0	0
	5:45 PM	0	1	0	3	4
<b>TOTAL</b>		6	6	2	6	20

### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

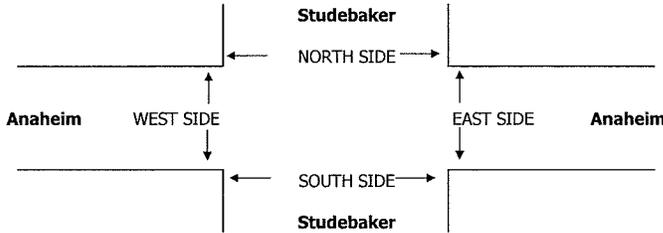
<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Studebaker Anaheim	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 4 <b>CONTROL:</b> SIGNAL
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<b>NOTES:</b>  	AM PM MD OTHER OTHER	▲ N ◀ W    E ▶ S ▼	<input checked="" type="checkbox"/> Add U-Turns to Left Turns
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	NORTHBOUND Studebaker			SOUTHBOUND Studebaker			EASTBOUND Anaheim			WESTBOUND Anaheim			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 0.5	ER 1.5	WL 0	WT 1	WR 0	
7:00 AM	61	160	3	5	215	17	5	3	38	6	1	4	518
7:15 AM	73	222	1	4	218	35	14	1	36	9	3	6	622
7:30 AM	110	193	2	4	241	65	25	3	45	15	2	4	709
7:45 AM	119	200	8	9	276	44	16	4	23	15	7	7	728
8:00 AM	85	176	1	6	190	35	6	3	38	14	5	5	564
8:15 AM	56	178	2	7	157	17	5	5	35	6	1	12	481
8:30 AM	78	186	3	7	169	26	8	3	21	7	3	5	516
8:45 AM	122	173	6	9	188	30	5	6	31	11	4	6	591
<b>VOLUMES</b>	704	1,488	26	51	1,654	269	84	28	267	83	26	49	4,729
<b>APPROACH %</b>	32%	67%	1%	3%	84%	14%	22%	7%	70%	53%	16%	31%	
<b>APP/DEPART</b>	2,218	/	1,622	1,974	/	2,004	379	/	104	158	/	999	0
<b>BEGIN PEAK HR</b>	7:15 AM												
<b>VOLUMES</b>	387	791	12	23	925	179	61	11	142	53	17	22	2,623
<b>APPROACH %</b>	33%	66%	1%	2%	82%	16%	29%	5%	66%	58%	18%	24%	
<b>PEAK HR FACTOR</b>	0.910			0.856			0.733			0.793			0.901
<b>APP/DEPART</b>	1,190	/	874	1,127	/	1,120	214	/	46	92	/	583	0
4:00 PM	56	228	5	9	149	10	18	2	66	5	1	10	559
4:15 PM	58	234	2	15	141	10	13	12	75	7	5	5	577
4:30 PM	62	274	4	5	186	13	14	4	83	11	4	8	668
4:45 PM	65	280	4	11	174	14	27	14	85	9	4	12	699
5:00 PM	45	284	8	14	174	10	28	19	129	12	5	7	735
5:15 PM	50	301	2	16	179	6	29	15	82	18	3	8	709
5:30 PM	45	278	9	20	171	7	7	9	69	11	5	16	635
5:45 PM	59	231	5	10	156	15	10	5	68	9	4	7	591
<b>VOLUMES</b>	440	2,110	39	100	1,330	85	146	80	657	82	31	73	5,173
<b>APPROACH %</b>	17%	81%	2%	7%	88%	6%	17%	9%	74%	44%	17%	39%	
<b>APP/DEPART</b>	2,589	/	2,330	1,515	/	2,072	883	/	218	186	/	553	0
<b>BEGIN PEAK HR</b>	4:30 PM												
<b>VOLUMES</b>	222	1,139	18	46	713	43	98	52	379	50	16	35	2,811
<b>APPROACH %</b>	16%	83%	1%	6%	89%	5%	19%	10%	72%	50%	16%	35%	
<b>PEAK HR FACTOR</b>	0.977			0.983			0.751			0.871			0.956
<b>APP/DEPART</b>	1,379	/	1,272	802	/	1,143	529	/	116	101	/	280	0

U-TURNS				
NB	SB	EB	WB	TTL
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	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1

1	0	0	0	1
0	1	0	0	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
3	1	0	0	4



	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	2	9	1	0	12
7:15 AM	2	3	0	4	9
7:30 AM	0	9	1	3	13
7:45 AM	7	9	5	2	23
8:00 AM	3	12	0	3	18
8:15 AM	0	6	0	0	6
8:30 AM	1	5	0	1	7
8:45 AM	2	11	0	0	13
<b>TOTAL</b>	17	64	7	13	101
4:00 PM	2	5	1	1	9
4:15 PM	2	5	4	0	11
4:30 PM	5	5	1	1	12
4:45 PM	6	10	1	0	17
5:00 PM	1	8	1	3	13
5:15 PM	3	8	3	2	16
5:30 PM	4	4	0	0	8
5:45 PM	1	3	0	0	4
<b>TOTAL</b>	24	48	11	7	90

PEDESTRIAN + BIKE CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
2	9	1	0	12	
2	3	0	4	9	
0	9	1	3	13	
7	9	5	2	23	
3	12	0	3	18	
0	6	0	0	6	
1	5	0	1	7	
2	11	0	0	13	
<b>TOTAL</b>	17	64	7	13	101
2	5	1	1	9	
2	5	4	0	11	
5	5	1	1	12	
6	10	1	0	17	
1	8	1	3	13	
3	8	3	2	16	
4	4	0	0	8	
1	3	0	0	4	
<b>TOTAL</b>	24	48	11	7	90

PEDESTRIAN CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
2	6	1	0	9	
0	2	0	1	3	
0	8	1	3	12	
5	6	3	0	14	
1	10	0	0	11	
0	5	0	0	5	
1	5	0	0	6	
0	9	0	0	9	
<b>TOTAL</b>	9	51	5	4	69
1	3	1	1	6	
1	3	3	0	7	
2	2	1	0	5	
5	3	0	0	8	
1	7	1	3	12	
3	6	3	2	14	
3	3	0	0	6	
1	3	0	0	4	
<b>TOTAL</b>	17	30	9	6	62

BICYCLE CROSSINGS					
NS	SS	ES	WS	TOTAL	
0	3	0	0	3	
2	1	0	3	6	
0	1	0	0	1	
2	3	2	2	9	
2	2	0	3	7	
0	1	0	0	1	
0	0	0	1	1	
2	2	0	0	4	
<b>TOTAL</b>	8	13	2	9	32
1	2	0	0	3	
1	2	1	0	4	
3	3	0	1	7	
1	7	1	0	9	
0	1	0	0	1	
0	2	0	0	2	
1	1	0	0	2	
0	0	0	0	0	
<b>TOTAL</b>	7	18	2	1	28



### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

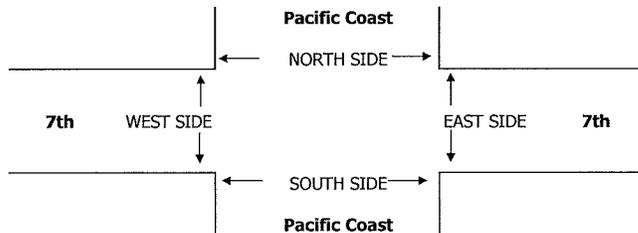
DATE: Tue, Nov 15, 16	LOCATION: NORTH & SOUTH: EAST & WEST:	Long Beach Pacific Coast 7th	PROJECT #: SC1123 LOCATION #: 6 CONTROL: SIGNAL
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NOTES:  AM/PM EB queue	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
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Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Pacific Coast			Pacific Coast			7th			7th			
LANES:	NL 1	NT 3	NR 0	SL 2	ST 3	SR 0	EL X	ET 3	ER 0	WL X	WT 2	WR 1	
7:00 AM	32	281	1	137	229	0	0	437	36	0	294	99	1,546
7:15 AM	32	254	0	132	218	1	0	473	54	0	313	138	1,615
7:30 AM	38	295	0	128	198	2	0	432	46	0	321	105	1,565
7:45 AM	23	300	2	125	211	1	0	459	41	0	282	120	1,564
8:00 AM	27	315	1	113	162	1	0	424	57	0	291	117	1,508
8:15 AM	30	332	2	111	134	0	0	432	43	0	297	111	1,492
8:30 AM	29	256	5	107	133	2	0	480	54	0	319	100	1,485
8:45 AM	21	236	2	108	136	3	0	439	48	0	302	111	1,406
VOLUMES	232	2,269	13	961	1,421	10	0	3,576	379	0	2,419	901	12,181
APPROACH %	9%	90%	1%	40%	59%	0%	0%	90%	10%	0%	73%	27%	
APP/DEPART	2,514	/	3,172	2,392	/	1,800	3,955	/	4,548	3,320	/	2,661	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	125	1,130	3	522	856	4	0	1,801	177	0	1,210	462	6,290
APPROACH %	10%	90%	0%	38%	62%	0%	0%	91%	9%	0%	72%	28%	
PEAK HR FACTOR	0.944												
APP/DEPART	1,258	/	1,592	1,382	/	1,033	1,978	/	2,326	1,672	/	1,339	0
4:00 PM	51	195	3	131	166	1	0	363	28	0	360	130	1,428
4:15 PM	61	173	2	148	246	2	0	331	33	0	321	94	1,411
4:30 PM	48	204	1	131	228	1	0	341	43	0	357	113	1,467
4:45 PM	55	187	1	134	225	1	0	318	27	0	351	124	1,423
5:00 PM	50	242	2	128	249	3	0	305	23	0	354	91	1,447
5:15 PM	43	204	5	128	230	2	0	323	24	0	394	98	1,451
5:30 PM	60	232	2	151	229	2	0	348	36	0	340	103	1,503
5:45 PM	51	220	0	126	205	2	0	412	35	0	371	117	1,539
VOLUMES	419	1,657	16	1,077	1,778	14	0	2,741	249	0	2,848	870	11,669
APPROACH %	20%	79%	1%	38%	62%	0%	0%	92%	8%	0%	77%	23%	
APP/DEPART	2,092	/	2,527	2,869	/	2,029	2,990	/	3,834	3,718	/	3,279	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	204	898	9	533	913	9	0	1,388	118	0	1,459	409	5,940
APPROACH %	18%	81%	1%	37%	63%	1%	0%	92%	8%	0%	78%	22%	
PEAK HR FACTOR	0.945												
APP/DEPART	1,111	/	1,307	1,455	/	1,031	1,506	/	1,930	1,868	/	1,672	0

U-TURNS				
NB	SB	EB	WB	TTL
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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	2	0	0	2
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2



	AM	PM
7:00 AM	0	4
7:15 AM	2	4
7:30 AM	2	4
7:45 AM	5	4
8:00 AM	0	0
8:15 AM	3	3
8:30 AM	6	3
8:45 AM	1	7
TOTAL	19	21
4:00 PM	4	7
4:15 PM	4	3
4:30 PM	4	1
4:45 PM	2	4
5:00 PM	2	2
5:15 PM	3	2
5:30 PM	1	0
5:45 PM	0	2
TOTAL	20	21

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	3	3	0	6
2	1	1	1	5
2	4	3	0	9
5	3	1	4	13
0	0	0	0	0
3	2	3	1	9
6	1	2	2	11
1	7	3	1	12
19	21	16	9	65
4	7	2	3	16
4	3	4	2	13
4	1	4	1	10
2	4	5	0	11
2	2	2	0	6
3	2	1	0	6
1	0	1	1	3
0	2	2	1	5
20	21	21	8	70

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	2	2	0	4
2	0	1	1	4
2	3	3	0	8
4	1	1	4	10
0	0	0	0	0
3	0	0	1	4
6	0	2	2	10
0	6	3	1	10
17	12	12	9	50
4	5	2	3	14
4	1	4	1	10
4	0	4	1	9
2	3	5	0	10
2	2	2	0	6
3	1	1	0	5
1	0	1	1	3
0	2	1	1	4
20	14	20	7	61

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	1	0	2
0	1	0	0	1
0	1	0	0	1
1	2	0	0	3
0	0	0	0	0
0	2	3	0	5
0	1	0	0	1
1	1	0	0	2
2	9	4	0	15
0	2	0	0	2
0	2	0	1	3
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	1	0	1
0	7	1	1	9

### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Nov 15, 16	LOCATION: NORTH & SOUTH: EAST & WEST:	Long Beach Bellflower 7th	PROJECT #: SC1123 LOCATION #: 7 CONTROL: SIGNAL
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NOTES: AM/PM WB queue

AM	▲	N
PM	◀	W
MD	▶	E
OTHER	▼	S
OTHER		

Add U-Turns to Left Turns

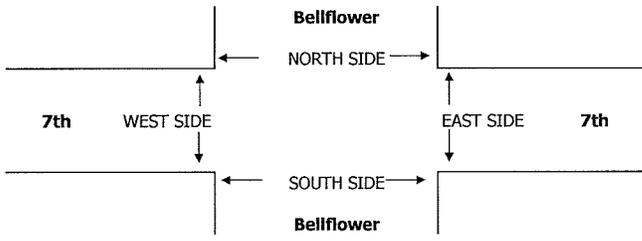
LANES:	NORTHBOUND <small>Bellflower</small>			SOUTHBOUND <small>Bellflower</small>			EASTBOUND <small>7th</small>			WESTBOUND <small>7th</small>			TOTAL
	NL X	NT 3	NR 1	SL 2	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	0	103	24	41	56	41	45	587	1	4	402	52	1,356
	7:15 AM	0	126	18	59	78	39	50	491	5	5	373	77	1,321
	7:30 AM	0	131	23	37	63	40	73	499	2	4	416	76	1,364
	7:45 AM	0	163	53	79	86	41	86	506	0	13	349	68	1,444
	8:00 AM	0	150	41	45	83	43	46	457	6	7	406	61	1,345
	8:15 AM	0	123	26	47	69	37	65	526	1	5	389	49	1,337
	8:30 AM	0	141	29	38	78	52	64	439	4	11	339	36	1,231
	8:45 AM	0	153	33	38	90	55	72	460	4	8	353	58	1,324
	VOLUMES	0	1,090	247	384	603	348	501	3,965	23	57	3,027	477	10,722
	APPROACH %	0%	82%	18%	29%	45%	26%	11%	88%	1%	2%	85%	13%	
APP/DEPART	1,337	/	2,069	1,335	/	679	4,489	/	4,599	3,561	/	3,375	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	0	567	143	208	301	161	270	1,988	9	29	1,560	254	5,490	
APPROACH %	0%	80%	20%	31%	45%	24%	12%	88%	0%	2%	85%	14%		
PEAK HR FACTOR	0.822			0.813			0.957			0.929			0.950	
APP/DEPART	710	/	1,092	670	/	337	2,267	/	2,340	1,843	/	1,721	0	
PM	4:00 PM	0	112	20	79	151	114	44	399	2	8	343	24	1,296
	4:15 PM	0	130	36	71	110	86	28	456	0	8	377	45	1,347
	4:30 PM	0	116	47	93	143	96	46	425	5	11	348	33	1,363
	4:45 PM	0	129	37	83	170	85	35	398	3	13	383	34	1,370
	5:00 PM	0	119	31	100	145	106	33	460	4	8	390	39	1,435
	5:15 PM	0	140	19	79	173	94	30	401	6	10	368	32	1,352
	5:30 PM	0	128	41	60	121	91	51	483	4	10	409	46	1,444
	5:45 PM	0	122	29	79	131	82	27	458	4	11	371	32	1,346
	VOLUMES	0	996	260	644	1,144	754	294	3,480	28	79	2,989	285	10,953
	APPROACH %	0%	79%	21%	25%	45%	30%	8%	92%	1%	2%	89%	8%	
APP/DEPART	1,256	/	1,578	2,542	/	1,248	3,802	/	4,384	3,353	/	3,743	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	0	516	128	322	609	376	149	1,742	17	41	1,550	151	5,601	
APPROACH %	0%	80%	20%	25%	47%	29%	8%	91%	1%	2%	89%	9%		
PEAK HR FACTOR	0.953			0.931			0.887			0.937			0.970	
APP/DEPART	644	/	818	1,307	/	666	1,908	/	2,191	1,742	/	1,926	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	1	0	4	5

0	0	0	0	0
0	0	0	1	1
0	1	0	0	1
0	0	0	1	1
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
0	3	0	3	6



AM	7:00 AM	3	5	3	5	16
	7:15 AM	5	2	0	4	11
	7:30 AM	3	6	0	4	13
	7:45 AM	18	3	1	7	29
	8:00 AM	4	2	3	0	9
	8:15 AM	10	1	0	2	13
	8:30 AM	6	3	1	3	13
	8:45 AM	7	6	2	5	20
	TOTAL	56	28	10	30	124
PM	4:00 PM	15	8	1	7	31
	4:15 PM	7	5	1	7	20
	4:30 PM	7	3	0	4	14
	4:45 PM	11	2	0	4	17
	5:00 PM	8	5	0	7	20
	5:15 PM	11	3	1	1	16
	5:30 PM	2	1	0	6	9
	5:45 PM	2	2	1	3	8
	TOTAL	63	29	4	39	135

PEDESTRIAN + BIKE CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
3	5	3	5	16	
5	2	0	4	11	
3	6	0	4	13	
18	3	1	7	29	
4	2	3	0	9	
10	1	0	2	13	
6	3	1	3	13	
7	6	2	5	20	
56	28	10	30	124	
15	8	1	7	31	
7	5	1	7	20	
7	3	0	4	14	
11	2	0	4	17	
8	5	0	7	20	
11	3	1	1	16	
2	1	0	6	9	
2	2	1	3	8	
63	29	4	39	135	

PEDESTRIAN CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
3	4	1	4	12	
4	2	0	2	8	
2	6	0	2	10	
15	1	1	7	24	
3	2	0	0	5	
9	1	0	1	11	
5	2	0	2	9	
6	5	1	4	16	
47	23	3	22	95	
14	8	1	6	29	
6	4	1	5	16	
7	3	0	4	14	
10	2	0	3	15	
5	4	0	5	14	
10	3	0	1	14	
1	1	0	4	6	
2	2	1	3	8	
55	27	3	31	116	

BICYCLE CROSSINGS					
NS	SS	ES	WS	TOTAL	
0	1	2	1	4	
1	0	0	2	3	
1	0	0	2	3	
3	2	0	0	5	
1	0	3	0	4	
1	0	0	1	2	
1	1	1	1	4	
1	1	1	1	4	
9	5	7	8	29	
1	0	0	1	2	
1	1	0	2	4	
0	0	0	0	0	
1	0	0	1	2	
3	1	0	2	6	
1	0	1	0	2	
0	0	0	0	0	
8	2	1	8	19	

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	<b>Long Beach</b> Studebaker SR-22 WB	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 8 <b>CONTROL:</b> SIGNAL
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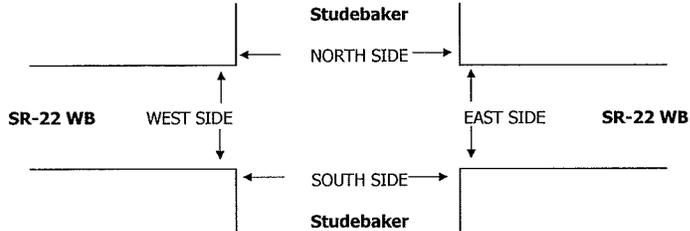
NOTES:	<table border="1" style="margin: auto;"> <tr><td style="padding: 2px;">AM</td><td style="padding: 2px;">▲</td></tr> <tr><td style="padding: 2px;">PM</td><td style="padding: 2px;">N</td></tr> <tr><td style="padding: 2px;">MD</td><td style="padding: 2px;">← W</td></tr> <tr><td style="padding: 2px;">OTHER</td><td style="padding: 2px;">E →</td></tr> <tr><td style="padding: 2px;">OTHER</td><td style="padding: 2px;">S</td></tr> <tr><td style="padding: 2px;">OTHER</td><td style="padding: 2px;">▼</td></tr> </table>	AM	▲	PM	N	MD	← W	OTHER	E →	OTHER	S	OTHER	▼
AM	▲												
PM	N												
MD	← W												
OTHER	E →												
OTHER	S												
OTHER	▼												

Add U-Turns to Left Turns

	NORTHBOUND Studebaker			SOUTHBOUND Studebaker			EASTBOUND SR-22 WB			WESTBOUND SR-22 WB			TOTAL
	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 2	WT X	WR X	
7:00 AM	0	119	13	13	251	0	0	0	0	141	0	57	594
7:15 AM	0	202	8	12	277	0	0	0	0	94	0	96	689
7:30 AM	0	193	6	6	284	0	0	0	0	103	0	122	714
7:45 AM	0	181	13	15	274	0	0	0	0	116	0	121	720
8:00 AM	0	195	15	20	264	0	0	0	0	106	0	117	717
8:15 AM	0	144	10	7	205	0	0	0	0	89	0	116	571
8:30 AM	0	168	9	11	172	0	0	0	0	122	0	147	629
8:45 AM	0	181	11	12	212	0	0	0	0	128	0	134	678
VOLUMES	0	1,383	85	96	1,939	0	0	0	0	899	0	910	5,312
APPROACH %	0%	94%	6%	5%	95%	0%	0%	0%	0%	50%	0%	50%	
APP/DEPART	1,468	/	2,293	2,035	/	2,838	0	/	181	1,809	/	0	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	0	771	42	53	1,099	0	0	0	0	419	0	456	2,840
APPROACH %	0%	95%	5%	5%	95%	0%	0%	0%	0%	48%	0%	52%	
PEAK HR FACTOR	0.968			0.993			0.000			1.886			1.183
APP/DEPART	813	/	1,227	1,152	/	1,518	0	/	95	875	/	0	0
4:00 PM	0	172	9	9	190	0	0	0	0	233	0	65	678
4:15 PM	0	211	13	11	224	0	0	0	0	284	0	67	810
4:30 PM	0	235	8	11	267	0	0	0	0	280	0	75	876
4:45 PM	0	260	12	12	250	0	0	0	0	280	0	66	880
5:00 PM	0	258	16	10	306	0	0	0	0	285	0	60	935
5:15 PM	0	274	9	12	287	0	0	0	0	276	0	52	910
5:30 PM	0	269	16	7	264	0	0	0	0	266	0	77	899
5:45 PM	0	219	12	8	219	0	0	0	0	268	0	67	793
VOLUMES	0	1,898	95	80	2,007	0	0	0	0	2,172	0	529	6,781
APPROACH %	0%	95%	5%	4%	96%	0%	0%	0%	0%	80%	0%	20%	
APP/DEPART	1,993	/	2,427	2,087	/	4,179	0	/	175	2,701	/	0	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	0	1,061	53	41	1,107	0	0	0	0	1,107	0	255	3,624
APPROACH %	0%	95%	5%	4%	96%	0%	0%	0%	0%	81%	0%	19%	
PEAK HR FACTOR	0.977			0.908			0.000			1.195			1.035
APP/DEPART	1,114	/	1,316	1,148	/	2,214	0	/	94	1,362	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
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	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	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	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	0
0	0	0	0	0
0	0	0	0	0



	AM	PM
7:00 AM	0	0
7:15 AM	0	0
7:30 AM	0	0
7:45 AM	0	0
8:00 AM	0	0
8:15 AM	0	0
8:30 AM	0	0
8:45 AM	0	0
TOTAL	0	0
4:00 PM	0	0
4:15 PM	0	0
4:30 PM	0	0
4:45 PM	0	0
5:00 PM	0	0
5:15 PM	0	0
5:30 PM	0	0
5:45 PM	0	0
TOTAL	0	0

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	1	2	1	4
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
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	0	0	0	0
0	0	2	0	2

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
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	0	0	0	0
0	0	1	0	1
0	0	1	0	1
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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	1	1	3
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1

### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Tue, Nov 15, 16

**LOCATION:**  
NORTH & SOUTH:  
EAST & WEST:

Long Beach  
Pacific Coast  
Bellflower

**PROJECT #:** SC1123  
**LOCATION #:** 9  
**CONTROL:** SIGNAL

<p><b>NOTES:</b></p> <p style="text-align: center;">AM/PM NB/SB queue</p>	<table border="1" style="margin: auto;"> <tr> <td style="padding: 2px;">AM</td> <td style="padding: 2px;">▲</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;">PM</td> <td style="padding: 2px;">◀</td> <td style="padding: 2px;">W</td> </tr> <tr> <td style="padding: 2px;">MD</td> <td style="padding: 2px;">▶</td> <td style="padding: 2px;">E</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td style="padding: 2px;">▼</td> <td style="padding: 2px;">S</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td></td> <td></td> </tr> </table>	AM	▲	N	PM	◀	W	MD	▶	E	OTHER	▼	S	OTHER		
AM	▲	N														
PM	◀	W														
MD	▶	E														
OTHER	▼	S														
OTHER																

Add U-Turns to Left Turns

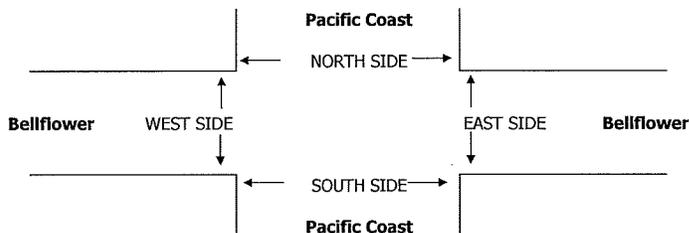
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 3	NR 1	SL 1	ST 3	SR 0	EL 1	ET 2	ER 0	WL 1.5	WT 2.5	WR 1	

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

<b>AM</b>	7:00 AM	5	302	60	14	259	2	15	59	18	44	15	4	797
	7:15 AM	4	298	75	26	280	6	19	70	19	61	27	0	885
	7:30 AM	5	298	76	12	208	9	22	108	13	44	23	0	818
	7:45 AM	11	295	82	24	256	10	20	116	17	63	29	0	923
	8:00 AM	4	344	71	13	186	9	26	115	21	63	38	0	890
	8:15 AM	12	306	80	13	173	7	18	75	14	36	35	0	769
	8:30 AM	14	244	83	12	165	11	14	72	12	52	43	0	722
	8:45 AM	11	277	93	12	182	5	17	91	13	61	35	2	799
	VOLUMES	66	2,364	620	126	1,709	59	151	706	127	424	245	6	6,603
	APPROACH %	2%	78%	20%	7%	90%	3%	15%	72%	13%	63%	36%	1%	
	APP/DEPART	3,050	/	2,527	1,894	/	2,253	984	/	1,455	675	/	368	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	24	1,235	304	75	930	34	87	409	70	231	117	0	3,516
	APPROACH %	2%	79%	19%	7%	90%	3%	15%	72%	12%	66%	34%	0%	
	PEAK HR FACTOR	0.933												
	APP/DEPART	1,563	/	1,326	1,039	/	1,226	566	/	789	348	/	175	0
<b>PM</b>	4:00 PM	22	270	75	19	197	18	11	62	13	85	68	1	841
	4:15 PM	10	215	82	23	207	10	6	84	12	87	60	0	796
	4:30 PM	28	242	79	22	271	17	10	75	19	69	62	0	894
	4:45 PM	24	246	72	14	230	10	16	103	22	112	92	1	942
	5:00 PM	22	229	58	23	231	14	19	98	23	96	60	4	877
	5:15 PM	25	265	78	23	243	13	11	65	40	111	89	0	963
	5:30 PM	20	259	87	31	210	13	12	76	30	74	72	0	884
	5:45 PM	38	254	64	25	222	12	9	71	19	67	49	2	832
	VOLUMES	189	1,980	595	180	1,811	107	94	634	178	701	552	8	7,029
	APPROACH %	7%	72%	22%	9%	86%	5%	10%	70%	20%	56%	44%	1%	
	APP/DEPART	2,764	/	2,087	2,098	/	2,679	906	/	1,417	1,261	/	846	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	99	982	287	82	975	54	56	341	104	388	303	5	3,676
	APPROACH %	7%	72%	21%	7%	88%	5%	11%	68%	21%	56%	44%	1%	
	PEAK HR FACTOR	0.929												
	APP/DEPART	1,368	/	1,044	1,111	/	1,462	501	/	717	696	/	453	0

0	0	0	0	0
0	2	0	1	3
0	1	0	1	2
0	1	0	0	1
0	0	0	3	3
0	0	0	0	0
1	1	0	1	3
1	1	0	3	5
2	6	0	9	17

0	1	1	1	3
0	2	0	3	5
2	0	0	1	3
0	1	0	2	3
0	0	0	4	4
1	0	0	1	2
0	0	0	1	1
0	2	0	1	3
3	6	1	14	24



<b>AM</b>	7:00 AM	5	0	3	3	11
	7:15 AM	3	1	1	2	7
	7:30 AM	3	0	0	2	5
	7:45 AM	1	1	2	1	5
	8:00 AM	0	0	1	0	1
	8:15 AM	2	0	2	1	5
	8:30 AM	3	0	1	2	6
	8:45 AM	2	0	1	2	5
	TOTAL	19	2	11	13	45
<b>PM</b>	4:00 PM	2	1	1	1	5
	4:15 PM	2	0	0	4	6
	4:30 PM	1	0	2	0	3
	4:45 PM	4	0	3	2	9
	5:00 PM	3	0	1	0	4
	5:15 PM	1	0	2	1	4
	5:30 PM	0	0	1	2	3
	5:45 PM	0	1	1	1	3
	TOTAL	13	2	11	11	37

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
5	0	3	3	11
3	1	1	2	7
3	0	0	2	5
1	1	2	1	5
0	0	1	0	1
2	0	2	1	5
3	0	1	2	6
2	0	1	2	5
19	2	11	13	45
2	1	1	1	5
2	0	0	4	6
1	0	2	0	3
4	0	3	2	9
3	0	1	0	4
1	0	2	1	4
0	0	1	2	3
0	1	1	1	3
13	2	11	11	37

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	0	0	1	3
1	0	1	0	2
1	0	0	1	2
1	0	2	0	3
0	0	0	0	0
2	0	1	1	4
2	0	1	1	4
1	0	1	2	4
10	0	6	6	22
1	0	0	0	1
0	0	0	1	1
0	0	1	0	1
1	0	3	2	6
3	0	1	0	4
0	0	2	1	3
0	0	1	2	3
0	0	0	0	0
5	0	8	6	19

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
3	0	3	2	8
2	1	0	2	5
2	0	0	1	3
0	1	0	1	2
0	0	1	0	1
0	0	1	0	1
1	0	0	1	2
1	0	0	0	1
1	1	1	1	4
2	0	0	3	5
1	0	1	0	2
3	0	0	0	3
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	1	1	1	3
8	2	3	5	18



### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Pacific Coast Loynes	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 11 <b>CONTROL:</b> SIGNAL
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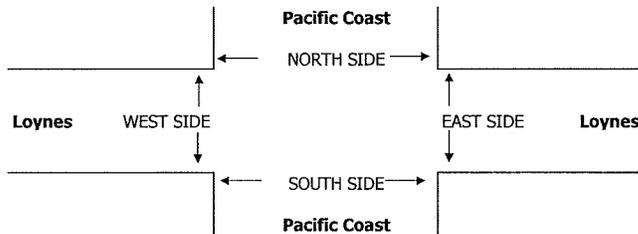
<b>NOTES:</b>	<table border="1" style="margin: auto;"> <tr><td>AM</td><td></td><td>▲</td><td></td></tr> <tr><td>PM</td><td></td><td>N</td><td></td></tr> <tr><td>MD</td><td>← W</td><td></td><td>E →</td></tr> <tr><td>OTHER</td><td></td><td>S</td><td></td></tr> <tr><td>OTHER</td><td></td><td>▼</td><td></td></tr> </table>	AM		▲		PM		N		MD	← W		E →	OTHER		S		OTHER		▼	
AM		▲																			
PM		N																			
MD	← W		E →																		
OTHER		S																			
OTHER		▼																			

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Pacific Coast			Pacific Coast			Loynes			Loynes			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	8	392	20	1	245	1	5	48	15	26	12	16	789
7:15 AM	9	327	16	8	326	3	5	54	14	28	24	19	833
7:30 AM	3	414	16	11	303	1	2	54	24	16	26	15	885
7:45 AM	11	335	17	16	225	3	3	85	42	22	42	14	815
8:00 AM	11	410	28	9	273	3	4	67	34	25	44	17	925
8:15 AM	14	400	13	8	217	4	2	46	21	38	41	9	813
8:30 AM	15	316	20	8	242	3	5	54	29	34	46	16	788
8:45 AM	20	363	27	7	221	4	6	67	34	27	37	11	824
VOLUMES	91	2,957	157	68	2,052	22	32	475	213	216	272	117	6,672
APPROACH %	3%	92%	5%	3%	96%	1%	4%	66%	30%	36%	45%	19%	
APP/DEPART	3,205	/	3,106	2,142	/	2,482	720	/	700	605	/	384	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	34	1,486	77	44	1,127	10	14	260	114	91	136	65	3,458
APPROACH %	2%	93%	5%	4%	95%	1%	4%	67%	29%	31%	47%	22%	
PEAK HR FACTOR	0.889			0.876			0.746			0.849			0.935
APP/DEPART	1,597	/	1,565	1,181	/	1,333	388	/	381	292	/	179	0
4:00 PM	49	270	41	13	255	4	8	43	31	57	80	19	870
4:15 PM	33	300	46	13	356	8	4	39	28	36	82	20	965
4:30 PM	49	256	26	23	304	10	7	62	33	53	127	26	976
4:45 PM	32	321	43	10	346	10	7	91	35	52	119	25	1,091
5:00 PM	42	295	31	18	346	9	9	53	36	51	123	20	1,033
5:15 PM	47	318	39	27	334	3	6	106	44	51	141	28	1,144
5:30 PM	40	322	48	17	327	10	7	84	44	42	130	24	1,095
5:45 PM	52	303	37	16	340	8	3	58	32	49	118	33	1,049
VOLUMES	344	2,385	311	137	2,608	62	51	536	283	391	920	195	8,223
APPROACH %	11%	78%	10%	5%	93%	2%	6%	62%	33%	26%	61%	13%	
APP/DEPART	3,040	/	2,628	2,807	/	3,283	870	/	986	1,506	/	1,326	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	161	1,256	161	72	1,353	32	29	334	159	196	513	97	4,363
APPROACH %	10%	80%	10%	5%	93%	2%	6%	64%	30%	24%	64%	12%	
PEAK HR FACTOR	0.962			0.977			0.837			0.916			0.953
APP/DEPART	1,578	/	1,379	1,457	/	1,708	522	/	568	806	/	708	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
0	0	0	1	1
0	0	1	0	1
2	1	1	1	5

0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	1	0	1
1	0	1	1	3
0	0	1	0	1
0	0	0	0	0
1	0	0	1	2
3	0	3	2	8



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	2	3	2	1	8
	7:15 AM	2	4	1	2	9
	7:30 AM	2	4	6	2	14
	7:45 AM	6	3	0	2	11
	8:00 AM	1	8	7	1	17
	8:15 AM	1	0	2	3	6
	8:30 AM	8	11	6	1	26
	8:45 AM	1	1	0	4	6
TOTAL		23	34	24	16	97
PM	4:00 PM	5	3	7	4	19
	4:15 PM	0	8	2	4	14
	4:30 PM	2	3	0	3	8
	4:45 PM	1	6	2	0	9
	5:00 PM	1	2	1	0	4
	5:15 PM	3	2	1	0	6
	5:30 PM	4	3	0	2	9
	5:45 PM	0	1	1	1	3
TOTAL		16	28	14	14	72

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	3	1	0	4
	7:15 AM	2	3	1	2	8
	7:30 AM	2	3	4	0	9
	7:45 AM	2	0	0	1	3
	8:00 AM	1	2	0	0	3
	8:15 AM	0	0	0	1	1
	8:30 AM	5	5	2	1	13
	8:45 AM	1	1	0	2	4
TOTAL		13	17	8	7	45
PM	4:00 PM	1	3	5	0	9
	4:15 PM	0	6	2	1	9
	4:30 PM	2	2	0	2	6
	4:45 PM	0	4	1	0	5
	5:00 PM	0	2	0	0	2
	5:15 PM	1	2	0	0	3
	5:30 PM	4	3	0	2	9
	5:45 PM	0	1	1	1	3
TOTAL		8	23	9	6	46

		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
AM	7:00 AM	2	0	1	1	4
	7:15 AM	0	1	0	0	1
	7:30 AM	0	1	2	2	5
	7:45 AM	4	3	0	1	8
	8:00 AM	0	6	7	1	14
	8:15 AM	1	0	2	2	5
	8:30 AM	3	6	4	0	13
	8:45 AM	0	0	0	2	2
TOTAL		10	17	16	9	52
PM	4:00 PM	4	0	2	4	10
	4:15 PM	0	2	0	3	5
	4:30 PM	0	1	0	1	2
	4:45 PM	1	2	1	0	4
	5:00 PM	1	0	1	0	2
	5:15 PM	2	0	1	0	3
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL		8	5	5	8	26

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

DATE: Tue, Nov 15, 16  
 LOCATION: NORTH & SOUTH: EAST & WEST: Long Beach Studebaker Loynes  
 PROJECT #: SC1123  
 LOCATION #: 12  
 CONTROL: SIGNAL

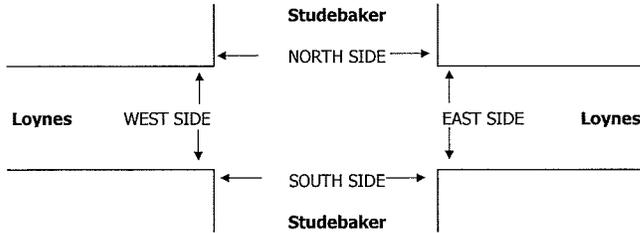
NOTES:

AM		▲	
PM	◀ W	N	E ▶
MD		▼	
OTHER		S	
OTHER			

Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	7	327	0	0	304	42	54	0	11	0	0	0	745
7:15 AM	10	352	0	0	299	45	75	0	19	0	0	0	800
7:30 AM	17	357	0	0	268	56	68	0	21	0	0	0	787
7:45 AM	18	318	0	0	250	79	92	0	28	0	0	0	785
8:00 AM	18	295	0	0	281	63	86	0	22	0	0	0	765
8:15 AM	10	281	0	0	214	60	68	0	20	0	0	0	653
8:30 AM	9	316	0	0	194	57	60	0	21	0	0	0	657
8:45 AM	10	299	0	0	252	58	65	0	20	0	0	0	704
VOLUMES	99	2,545	0	0	2,062	460	568	0	162	0	0	0	5,896
APPROACH %	4%	96%	0%	0%	82%	18%	78%	0%	22%	0%	0%	0%	0%
APP/DEPART	2,644	/	3,113	2,522	/	2,228	730	/	0	0	/	555	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	63	1,322	0	0	1,098	243	321	0	90	0	0	0	3,137
APPROACH %	5%	95%	0%	0%	82%	18%	78%	0%	22%	0%	0%	0%	0%
PEAK HR FACTOR	0.926												
APP/DEPART	1,385	/	1,643	1,341	/	1,191	411	/	0	0	/	303	0
4:00 PM	23	391	0	0	312	118	68	0	14	0	0	0	926
4:15 PM	24	375	0	0	299	147	77	0	16	0	0	0	938
4:30 PM	25	413	0	0	340	176	75	0	20	0	0	0	1,049
4:45 PM	38	392	0	0	317	157	98	0	17	0	0	0	1,019
5:00 PM	34	408	0	0	303	184	82	0	23	0	0	0	1,034
5:15 PM	44	387	0	0	337	162	114	0	35	0	0	0	1,079
5:30 PM	28	359	0	0	288	174	110	0	18	0	0	0	977
5:45 PM	18	312	0	0	270	174	70	0	18	0	0	0	862
VOLUMES	234	3,037	0	0	2,466	1,292	694	0	161	0	0	0	7,884
APPROACH %	7%	93%	0%	0%	66%	34%	81%	0%	19%	0%	0%	0%	0%
APP/DEPART	3,271	/	3,731	3,758	/	2,633	855	/	0	0	/	1,520	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	141	1,600	0	0	1,297	679	369	0	95	0	0	0	4,181
APPROACH %	8%	92%	0%	0%	66%	34%	80%	0%	20%	0%	0%	0%	0%
PEAK HR FACTOR	0.985												
APP/DEPART	1,741	/	1,969	1,976	/	1,395	464	/	0	0	/	817	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
4	0	0	0	4
3	0	0	0	3
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
6	0	0	0	6



AM	PM
7:00 AM	4:00 PM
7:15 AM	4:15 PM
7:30 AM	4:30 PM
7:45 AM	4:45 PM
8:00 AM	5:00 PM
8:15 AM	5:15 PM
8:30 AM	5:30 PM
8:45 AM	5:45 PM
TOTAL	TOTAL

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	0	0	1	1
0	1	0	0	1
0	0	0	0	0
0	1	1	3	5
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
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	0	0	0	0
0	0	0	0	0
0	0	1	0	1

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
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	0	0	0	0
0	0	1	0	1

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

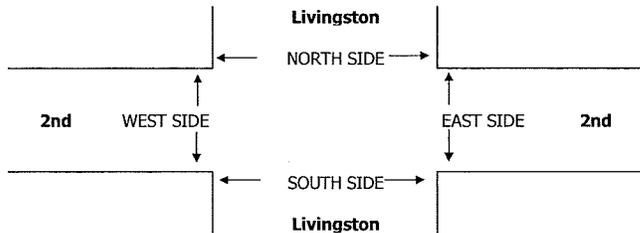
DATE: Tue, Nov 15, 16  
 LOCATION: NORTH & SOUTH: Long Beach  
 EAST & WEST: Livingston 2nd  
 PROJECT #: SC1123  
 LOCATION #: 13  
 CONTROL: SIGNAL

NOTES:

AM	
PM	
MD	
OTHER	

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	U-TURNS				
	Livingston			Livingston			2nd			2nd				NB	SB	EB	WB	TTL
LANES:	NL 0.5	NT 0.5	NR 2	SL X	ST 1	SR 0	EL 0	ET 1	ER X	WL 1.5	WT 0.5	WR 1						
7:00 AM	0	12	163	0	17	0	2	36	0	241	22	0	493	0	0	0	0	0
7:15 AM	0	25	181	0	15	2	5	38	0	255	32	1	554	0	0	0	0	0
7:30 AM	0	19	162	0	14	0	4	39	0	250	36	1	525	0	0	1	0	1
7:45 AM	0	23	155	0	22	3	5	41	0	259	38	0	546	0	0	0	0	0
8:00 AM	0	25	146	0	13	3	1	37	0	239	55	0	519	0	0	0	0	0
8:15 AM	0	24	153	0	21	3	9	33	0	190	41	1	475	0	0	0	0	0
8:30 AM	0	18	116	0	19	3	3	37	0	202	31	0	429	0	0	0	0	0
8:45 AM	0	23	132	0	16	6	8	37	0	197	41	1	461	0	0	1	0	1
VOLUMES	0	169	1,208	0	137	20	37	298	0	1,833	296	4	4,002	0	0	2	0	2
APPROACH %	0%	12%	88%	0%	87%	13%	11%	89%	0%	86%	14%	0%						
APP/DEPART	1,377	/	208	157	/	1,970	335	/	1,506	2,133	/	318	0					
BEGIN PEAK HR	7:15 AM																	
VOLUMES	0	92	644	0	64	8	15	155	0	1,003	161	2	2,144					
APPROACH %	0%	13%	88%	0%	89%	11%	9%	91%	0%	86%	14%	0%						
PEAK HR FACTOR	0.893			0.720			0.924			0.981			0.968					
APP/DEPART	736	/	108	72	/	1,067	170	/	799	1,166	/	170	0					
4:00 PM	0	35	226	0	30	6	10	40	0	166	48	3	564	0	0	0	0	0
4:15 PM	0	35	277	0	28	12	6	49	0	181	50	4	642	0	0	0	0	0
4:30 PM	0	39	242	0	28	7	4	36	0	161	39	3	559	0	0	0	0	0
4:45 PM	0	44	265	0	18	10	14	47	0	176	51	4	629	0	0	0	0	0
5:00 PM	0	46	252	0	25	5	14	32	0	141	42	6	563	0	0	0	0	0
5:15 PM	0	36	250	0	36	7	12	36	0	206	44	2	629	0	0	0	0	0
5:30 PM	1	46	225	0	31	1	7	35	0	163	47	0	556	0	0	0	0	0
5:45 PM	3	45	237	0	22	5	8	39	0	169	44	2	574	0	0	0	0	0
VOLUMES	4	326	1,974	0	218	53	75	314	0	1,363	365	24	4,716	0	0	0	0	0
APPROACH %	0%	14%	86%	0%	80%	20%	19%	81%	0%	78%	21%	1%						
APP/DEPART	2,304	/	425	271	/	1,581	389	/	2,288	1,752	/	422	0					
BEGIN PEAK HR	4:00 PM																	
VOLUMES	0	153	1,010	0	104	35	34	172	0	684	188	14	2,394					
APPROACH %	0%	13%	87%	0%	75%	25%	17%	83%	0%	77%	21%	2%						
PEAK HR FACTOR	0.932			0.869			0.844			0.943			0.932					
APP/DEPART	1,163	/	201	139	/	788	206	/	1,182	886	/	223	0					



	AM	PM
7:00 AM		
7:15 AM		
7:30 AM		
7:45 AM		
8:00 AM		
8:15 AM		
8:30 AM		
8:45 AM		
TOTAL		
4:00 PM		
4:15 PM		
4:30 PM		
4:45 PM		
5:00 PM		
5:15 PM		
5:30 PM		
5:45 PM		
TOTAL		

N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
5	4	0	5	14
3	3	2	6	14
3	3	1	6	13
4	2	1	9	16
9	1	1	6	17
5	3	1	8	17
7	2	5	9	23
3	1	2	9	15
39	19	13	58	129
11	4	2	9	26
6	2	0	14	22
10	3	0	12	25
10	3	2	11	26
8	0	0	6	14
18	4	2	5	29
8	3	1	11	23
20	2	1	9	32
91	21	8	77	197

N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
5	4	0	5	14
3	1	2	6	12
3	2	1	5	11
4	1	0	7	12
8	0	1	6	15
5	1	1	6	13
5	0	4	6	15
2	1	2	8	13
35	10	11	49	105
11	0	2	6	19
5	1	0	12	18
10	1	0	8	19
10	0	1	8	19
6	0	0	6	12
18	1	2	5	26
8	0	0	10	18
20	0	1	8	29
88	3	6	63	160

NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	2	0	0	2
0	1	0	1	2
0	1	1	2	4
1	1	0	0	2
0	2	0	2	4
2	2	1	3	8
1	0	0	1	2
4	9	2	9	24
0	4	0	3	7
1	1	0	2	4
0	2	0	4	6
0	3	1	3	7
2	0	0	0	2
0	3	0	0	3
0	3	1	1	5
0	2	0	1	3
3	18	2	14	37



### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

**DATE:**  
Tue, Nov 15, 16

**LOCATION:**  
NORTH & SOUTH:  
EAST & WEST:

Long Beach  
The Toledo  
2nd

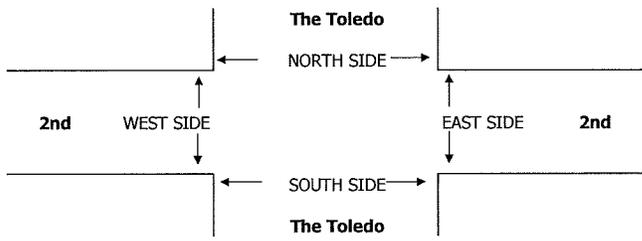
**PROJECT #:** SC1123  
**LOCATION #:** 14  
**CONTROL:** SIGNAL

**NOTES:**

AM	▲	N	▶
PM			
MD	◀	W	E ▶
OTHER	▼	S	▶
OTHER			

Add U-Turns to Left Turns

LANES:	NORTHBOUND The Toledo			SOUTHBOUND The Toledo			EASTBOUND 2nd			WESTBOUND 2nd			TOTAL	U-TURNS				
	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1		NB 0	SB 0	EB 0	WB 0	TTL
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	9	0	0	0	0	0	
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	
8:00 AM	0	1	0	1	0	0	1	0	0	0	0	15	0	1	0	0	1	
8:15 AM	0	1	0	0	0	0	1	0	0	0	0	17	0	0	0	0	0	
8:30 AM	0	2	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	
8:45 AM	0	2	0	0	0	0	1	0	0	0	0	22	0	0	0	0	0	
<b>VOLUMES</b>	0	8	0	1	0	0	4	0	0	0	0	119	0	1	0	0	1	
<b>APPROACH %</b>	0%	100%	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0	0	0	0	0	
<b>APP/DEPART</b>	8	/	132	1	/	0	4	/	0	119	/	0	0	0	0	0	0	
<b>BEGIN PEAK HR</b>	8:00 AM																	
<b>VOLUMES</b>	0	6	0	1	0	0	3	0	0	0	0	76	0	0	0	0	0	
<b>APPROACH %</b>	0%	100%	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0	0	0	0	0	
<b>PEAK HR FACTOR</b>	0.750			0.250			0.750			0.864			0.860					
<b>APP/DEPART</b>	6	/	86	1	/	0	3	/	0	76	/	0	0	0	0	0	0	
<b>BEGIN PEAK HR</b>	5:00 PM																	
<b>VOLUMES</b>	0	3	0	5	0	0	4	0	0	0	0	142	0	0	0	0	0	
<b>APPROACH %</b>	0%	100%	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0	0	0	0	0	
<b>PEAK HR FACTOR</b>	0.750			0.417			0.500			0.910			0.875					
<b>APP/DEPART</b>	3	/	154	5	/	0	4	/	0	142	/	0	0	0	0	0	0	



Time	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	9	10
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	9	10
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	9	10
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	16	16
8:00 AM	0	1	0	1	0	0	1	0	0	0	0	15	18
8:15 AM	0	1	0	0	0	0	1	0	0	0	0	17	19
8:30 AM	0	2	0	0	0	0	0	0	0	0	0	22	24
8:45 AM	0	2	0	0	0	0	1	0	0	0	0	22	25
<b>TOTAL</b>	0	8	0	1	0	0	4	0	0	0	0	119	132

Time	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	7	0	0	0	7
7:15 AM	8	0	0	0	8
7:30 AM	4	0	0	0	4
7:45 AM	3	0	0	0	3
8:00 AM	4	0	0	0	4
8:15 AM	5	0	0	0	5
8:30 AM	3	0	0	0	3
8:45 AM	7	0	0	0	7
<b>TOTAL</b>	41	0	0	0	41

Time	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	6	0	0	0	6
7:15 AM	8	0	0	0	8
7:30 AM	4	0	0	0	4
7:45 AM	0	0	0	0	0
8:00 AM	3	0	0	0	3
8:15 AM	3	0	0	0	3
8:30 AM	3	0	0	0	3
8:45 AM	7	0	0	0	7
<b>TOTAL</b>	34	0	0	0	34

Time	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	3	0	0	0	3
8:00 AM	1	0	0	0	1
8:15 AM	2	0	0	0	2
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
<b>TOTAL</b>	7	0	0	0	7

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

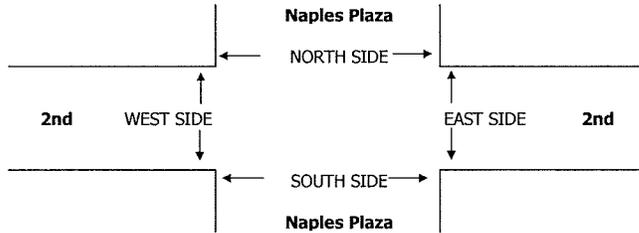
DATE: Tue, Nov 15, 16  
 LOCATION: NORTH & SOUTH: Long Beach Naples Plaza  
 EAST & WEST: 2nd  
 PROJECT #: SC1123  
 LOCATION #: 15  
 CONTROL: SIGNAL

NOTES:

AM		▲	
PM		N	
MD	◀ W		E ▶
OTHER		S	
OTHER		▼	

Add U-Turns to Left Turns

LANES:	NORTHBOUND Naples Plaza			SOUTHBOUND Naples Plaza			EASTBOUND 2nd			WESTBOUND 2nd			TOTAL	U-TURNS					
	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X		NB 0	SB 0	EB 0	WB 0	TTL	
7:00 AM	6	0	0	0	0	0	0	420	7	11	286	0	730	0	0	0	0	0	
7:15 AM	3	0	0	0	0	0	0	427	8	9	318	0	765	0	0	0	1	1	
7:30 AM	6	0	0	0	0	0	0	414	4	10	347	0	781	0	0	0	0	0	
7:45 AM	3	0	0	0	0	0	0	357	14	21	387	0	782	0	0	0	0	0	
8:00 AM	8	0	0	0	0	0	0	355	14	30	322	0	729	0	0	0	0	0	
8:15 AM	8	0	0	0	0	0	0	345	9	21	278	0	661	0	0	0	0	0	
8:30 AM	6	0	0	0	0	0	0	325	9	16	359	0	715	0	0	0	0	0	
8:45 AM	11	0	6	0	0	0	0	270	22	24	325	0	658	0	0	0	0	0	
VOLUMES	51	0	6	0	0	0	0	2,913	87	142	2,622	0	5,821	0	0	0	1	1	
APPROACH %	89%	0%	11%	0%	0%	0%	0%	97%	3%	5%	95%	0%							
APP/DEPART	57	/	0	0	/	228	3,000	/	2,920	2,764	/	2,673	0						
BEGIN PEAK HR	7:00 AM																		
VOLUMES	18	0	0	0	0	0	0	1,618	33	51	1,338	0	3,058						
APPROACH %	100%	0%	0%	0%	0%	0%	0%	98%	2%	4%	96%	0%							
PEAK HR FACTOR	0.750			0.000			0.949			0.851			0.978						
APP/DEPART	18	/	0	0	/	83	1,651	/	1,619	1,389	/	1,356	0						
4:00 PM	18	0	4	0	0	0	0	387	21	21	392	0	843	0	0	0	0	0	
4:15 PM	6	0	3	0	0	0	0	409	25	21	411	0	875	1	0	0	0	1	
4:30 PM	15	0	7	0	0	0	0	393	17	19	434	0	885	0	0	0	0	0	
4:45 PM	6	0	5	0	0	0	0	450	16	19	416	0	912	0	0	0	0	0	
5:00 PM	9	0	6	0	0	0	0	429	14	18	407	0	883	0	0	0	0	0	
5:15 PM	16	0	1	0	0	0	0	414	13	17	398	0	859	0	0	0	0	0	
5:30 PM	11	0	2	0	0	0	0	426	16	13	351	0	819	0	0	0	0	0	
5:45 PM	9	0	4	0	0	0	0	439	12	27	389	0	880	0	0	0	0	0	
VOLUMES	90	0	32	0	0	0	0	3,347	134	155	3,198	0	6,956	1	0	0	0	1	
APPROACH %	74%	0%	26%	0%	0%	0%	0%	96%	4%	5%	95%	0%							
APP/DEPART	122	/	0	0	/	290	3,481	/	3,379	3,353	/	3,287	0						
BEGIN PEAK HR	4:15 PM																		
VOLUMES	36	0	21	0	0	0	0	1,681	72	77	1,668	0	3,555						
APPROACH %	63%	0%	37%	0%	0%	0%	0%	96%	4%	4%	96%	0%							
PEAK HR FACTOR	0.648			0.000			0.940			0.963			0.975						
APP/DEPART	57	/	0	0	/	150	1,753	/	1,702	1,745	/	1,703	0						



Time	N Side	S Side	E Side	W Side	Total
7:00 AM	0	1	0	0	1
7:15 AM	0	2	0	0	2
7:30 AM	0	1	0	0	1
7:45 AM	0	1	0	0	1
8:00 AM	0	1	0	0	1
8:15 AM	0	3	0	0	3
8:30 AM	0	3	0	0	3
8:45 AM	0	1	0	0	1
TOTAL	0	13	0	0	13
4:00 PM	0	6	0	0	6
4:15 PM	0	3	0	0	3
4:30 PM	0	0	0	0	0
4:45 PM	0	3	1	0	4
5:00 PM	0	8	1	0	9
5:15 PM	0	0	0	0	0
5:30 PM	0	4	0	0	4
5:45 PM	0	2	0	0	2
TOTAL	0	26	2	0	28

Time	N Side	S Side	E Side	W Side	Total
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	1	0	0	1
8:15 AM	0	1	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	2	0	0	2
4:00 PM	0	2	0	0	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	1	0	2
5:00 PM	0	6	1	0	7
5:15 PM	0	0	0	0	0
5:30 PM	0	2	0	0	2
5:45 PM	0	0	0	0	0
TOTAL	0	11	2	0	13

Time	NS	SS	ES	WS	Total
7:00 AM	0	1	0	0	1
7:15 AM	0	2	0	0	2
7:30 AM	0	1	0	0	1
7:45 AM	0	1	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	2	0	0	2
8:30 AM	0	3	0	0	3
8:45 AM	0	1	0	0	1
TOTAL	0	11	0	0	11
4:00 PM	0	4	0	0	4
4:15 PM	0	3	0	0	3
4:30 PM	0	0	0	0	0
4:45 PM	0	2	0	0	2
5:00 PM	0	2	0	0	2
5:15 PM	0	0	0	0	0
5:30 PM	0	2	0	0	2
5:45 PM	0	2	0	0	2
TOTAL	0	15	0	0	15

### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Nov 15, 16	LOCATION: NORTH & SOUTH: EAST & WEST:	Long Beach Marina 2nd	PROJECT #: LOCATION #: CONTROL:
			SC1123 16 SIGNAL

NOTES:  PM EB queue	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	▶ E	
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Add U-Turns to Left Turns

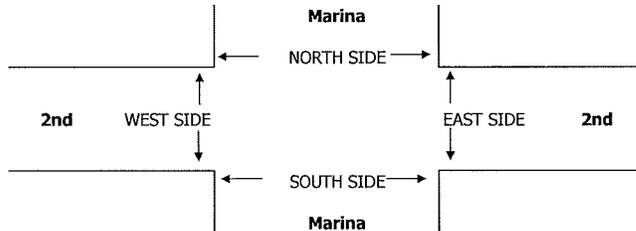
LANES:	NORTHBOUND <small>Marina</small>			SOUTHBOUND <small>Marina</small>			EASTBOUND <small>2nd</small>			WESTBOUND <small>2nd</small>			TOTAL
	NL 1.5	NT 1.5	NR 1	SL 1.5	ST 0.5	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	32	2	15	21	6	9	5	431	87	14	299	4	925
	7:15 AM	35	3	14	20	4	15	3	439	103	18	296	1	951
	7:30 AM	46	1	10	15	7	21	7	499	98	11	305	2	1,022
	7:45 AM	41	3	20	14	5	10	6	378	87	10	442	5	1,021
	8:00 AM	66	2	39	18	0	4	4	395	98	11	355	11	1,003
	8:15 AM	58	4	23	19	9	8	9	363	93	10	276	6	878
	8:30 AM	65	1	18	23	5	15	8	356	78	7	329	7	912
	8:45 AM	50	4	19	16	2	18	9	323	66	13	375	9	904
	VOLUMES	393	20	158	146	38	100	51	3,184	710	94	2,677	45	7,616
	APPROACH %	69%	4%	28%	51%	13%	35%	1%	81%	18%	3%	95%	2%	
APP/DEPART	571	/	111	284	/	835	3,945	/	3,495	2,816	/	3,175	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	188	9	83	67	16	50	20	1,711	386	50	1,398	19	3,997	
APPROACH %	67%	3%	30%	50%	12%	38%	1%	81%	18%	3%	95%	1%		
PEAK HR FACTOR	0.654			0.773			0.876			0.803			0.978	
APP/DEPART	280	/	48	133	/	450	2,117	/	1,863	1,467	/	1,636	0	
PM	4:00 PM	67	4	34	32	5	24	14	355	94	17	428	18	1,092
	4:15 PM	85	8	21	20	10	22	21	394	105	10	437	10	1,143
	4:30 PM	87	3	22	26	9	24	13	382	113	10	470	13	1,172
	4:45 PM	71	8	26	22	9	24	12	403	129	13	482	16	1,215
	5:00 PM	95	4	26	19	4	19	16	337	109	10	454	13	1,106
	5:15 PM	76	9	18	25	4	25	14	387	128	15	477	14	1,192
	5:30 PM	69	5	25	22	4	20	24	368	146	13	487	13	1,196
	5:45 PM	95	2	25	28	9	9	25	337	133	15	443	21	1,142
	VOLUMES	645	43	197	194	54	167	139	2,963	957	103	3,678	118	9,258
	APPROACH %	73%	5%	22%	47%	13%	40%	3%	73%	24%	3%	94%	3%	
APP/DEPART	885	/	296	415	/	1,109	4,059	/	3,360	3,899	/	4,493	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	311	26	95	88	21	88	66	1,495	512	51	1,900	56	4,709	
APPROACH %	72%	6%	22%	45%	11%	45%	3%	72%	25%	3%	95%	3%		
PEAK HR FACTOR	0.864			0.895			0.953			0.978			0.969	
APP/DEPART	432	/	147	197	/	582	2,073	/	1,680	2,007	/	2,300	0	

0	0	2	4	6
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	2	0	2
0	0	0	1	1
0	0	5	7	12

0	0	1	1	2
0	0	0	2	2
1	0	0	1	2
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	1	0	1
0	0	2	0	2
1	0	4	6	11



	PEDESTRIAN + BIKE CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
AM	7:00 AM	1	1	3	0	5
	7:15 AM	1	1	2	0	4
	7:30 AM	5	1	3	0	9
	7:45 AM	7	3	6	0	16
	8:00 AM	2	3	5	0	10
	8:15 AM	1	1	1	0	3
	8:30 AM	5	4	6	0	15
	8:45 AM	3	2	0	1	6
	TOTAL	25	16	26	1	68
PM	4:00 PM	5	1	6	0	12
	4:15 PM	8	7	8	1	24
	4:30 PM	2	2	4	0	8
	4:45 PM	4	1	4	0	9
	5:00 PM	6	5	7	2	20
	5:15 PM	3	2	6	1	12
	5:30 PM	0	3	2	0	5
	5:45 PM	6	2	3	0	11
	TOTAL	34	23	40	4	101

	PEDESTRIAN CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
AM	7:00 AM	0	0	1	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	3	1	3	0	7
	7:45 AM	5	2	6	0	13
	8:00 AM	1	3	5	0	9
	8:15 AM	1	1	1	0	3
	8:30 AM	5	1	6	0	12
	8:45 AM	2	0	0	0	2
	TOTAL	17	8	22	0	47
PM	4:00 PM	3	1	0	0	4
	4:15 PM	2	2	3	0	7
	4:30 PM	2	1	2	0	5
	4:45 PM	0	1	2	0	3
	5:00 PM	4	4	1	2	11
	5:15 PM	2	2	2	0	6
	5:30 PM	0	2	0	0	2
	5:45 PM	5	2	2	0	9
	TOTAL	18	15	12	2	47

	BICYCLE CROSSINGS					
	NS	SS	ES	WS	TOTAL	
AM	7:00 AM	1	1	2	0	4
	7:15 AM	1	1	2	0	4
	7:30 AM	2	0	0	0	2
	7:45 AM	2	1	0	0	3
	8:00 AM	1	0	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	3	0	0	3
	8:45 AM	1	2	0	1	4
	TOTAL	8	8	4	1	21
PM	4:00 PM	2	0	6	0	8
	4:15 PM	6	5	5	1	17
	4:30 PM	0	1	2	0	3
	4:45 PM	4	0	2	0	6
	5:00 PM	2	1	6	0	9
	5:15 PM	1	0	4	1	6
	5:30 PM	0	1	2	0	3
	5:45 PM	1	0	1	0	2
	TOTAL	16	8	28	2	54

### INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Pacific Coast 2nd	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 17 <b>CONTROL:</b> SIGNAL
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NOTES:	<table border="1" style="margin: auto;"> <tr> <td style="padding: 2px;">AM</td> <td style="padding: 2px;">▲</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;">PM</td> <td style="padding: 2px;">◀</td> <td style="padding: 2px;">W</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td style="padding: 2px;">▶</td> <td style="padding: 2px;">E</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td style="padding: 2px;">▼</td> <td style="padding: 2px;">S</td> </tr> </table>	AM	▲	N	PM	◀	W	OTHER	▶	E	OTHER	▼	S
AM	▲	N											
PM	◀	W											
OTHER	▶	E											
OTHER	▼	S											

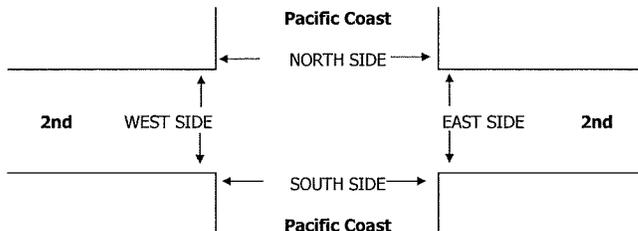
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 2	NT 3	NR 0	SL 2	ST 3	SR 1	EL 2	ET 2.5	ER 1.5	WL 2	WT 3	WR 1	

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

AM	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
7:00 AM	79	300	71	39	265	28	53	261	119	84	197	48	1,544	
7:15 AM	95	249	67	64	268	23	52	333	119	78	213	54	1,615	
7:30 AM	109	312	78	58	248	32	52	333	113	71	198	68	1,672	
7:45 AM	87	292	94	56	191	67	55	298	71	87	287	73	1,658	
8:00 AM	101	278	74	64	210	44	68	267	111	84	229	111	1,641	
8:15 AM	105	303	79	50	170	38	67	244	82	68	164	46	1,416	
8:30 AM	114	255	61	32	192	59	50	272	92	43	200	75	1,445	
8:45 AM	124	251	47	31	182	52	78	212	75	85	205	83	1,425	
VOLUMES	814	2,240	571	394	1,726	343	475	2,220	782	600	1,693	558	12,416	
APPROACH %	22%	62%	16%	16%	70%	14%	14%	64%	22%	21%	59%	20%		
APP/DEPART	3,625	/	3,271	2,463	/	3,101	3,477	/	3,192	2,851	/	2,852	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	392	1,131	313	242	917	166	227	1,231	414	320	927	306	6,586	
APPROACH %	21%	62%	17%	18%	69%	13%	12%	66%	22%	21%	60%	20%		
PEAK HR FACTOR	0.920			0.933			0.929			0.869			0.985	
APP/DEPART	1,836	/	1,664	1,325	/	1,649	1,872	/	1,788	1,553	/	1,485	0	
PM	4:00 PM	105	246	75	61	202	98	75	267	59	69	248	66	1,571
	4:15 PM	91	232	71	56	251	96	66	303	69	65	285	69	1,654
	4:30 PM	119	218	59	58	231	106	82	302	89	79	293	75	1,711
	4:45 PM	96	216	85	71	256	97	93	244	64	92	292	75	1,681
	5:00 PM	86	261	94	76	258	102	45	287	64	71	303	95	1,742
	5:15 PM	119	234	68	62	246	110	78	262	80	90	307	91	1,747
	5:30 PM	73	239	82	59	274	85	93	221	36	70	266	79	1,577
	5:45 PM	110	199	75	68	221	100	64	323	70	70	345	67	1,712
VOLUMES	799	1,845	609	511	1,939	794	596	2,209	531	606	2,339	617	13,395	
APPROACH %	25%	57%	19%	16%	60%	24%	18%	66%	16%	17%	66%	17%		
APP/DEPART	3,253	/	3,057	3,244	/	3,061	3,336	/	3,343	3,562	/	3,934	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	420	929	306	267	991	415	298	1,095	297	332	1,195	336	6,881	
APPROACH %	25%	56%	18%	16%	59%	25%	18%	65%	18%	18%	64%	18%		
PEAK HR FACTOR	0.938			0.959			0.893			0.954			0.985	
APP/DEPART	1,655	/	1,562	1,673	/	1,613	1,690	/	1,675	1,863	/	2,031	0	

NB	SB	EB	WB	TTL
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	1	1	2
0	0	0	1	1
0	0	1	2	3
0	0	2	7	9
0	0	0	1	1
0	0	0	0	0
0	0	0	2	2
0	0	1	2	3
0	0	0	1	1
0	0	0	2	2
0	1	1	3	5
0	0	1	4	4
0	1	2	15	18



AM	7:00 AM	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	TOTAL
	4	1	5	4	14				
	2	1	2	0	5				
	3	1	2	4	10				
	2	1	8	1	12				
	3	1	5	5	14				
	2	0	4	0	6				
	4	3	2	2	11				
	2	3	3	5	13				
	22	11	31	21	85				
PM	4:00 PM	8	5	9	7	29			
	4:15 PM	6	6	8	5	25			
	4:30 PM	4	4	6	5	19			
	4:45 PM	9	2	9	6	26			
	5:00 PM	2	2	3	1	8			
	5:15 PM	5	0	4	7	16			
	5:30 PM	3	1	3	8	15			
	5:45 PM	10	2	4	6	22			
	TOTAL	47	22	46	45	160			

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
3	0	0	1	4
0	0	0	0	0
2	0	1	2	5
1	1	2	1	5
2	1	2	3	8
2	0	3	0	5
3	2	2	1	8
1	0	1	1	3
14	4	11	9	38
8	1	8	3	20
2	1	4	2	9
3	3	4	4	14
9	1	8	4	22
1	2	1	1	5
5	0	4	5	14
2	1	3	5	11
6	2	3	5	16
36	11	35	29	111

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	5	3	10
2	1	2	0	5
1	1	1	2	5
1	0	6	0	7
1	0	3	2	6
0	0	1	0	1
1	1	0	1	3
1	3	2	4	10
8	7	20	12	47
0	4	1	4	9
4	5	4	3	16
1	1	2	1	5
0	1	1	2	4
1	0	2	0	3
0	0	0	2	2
1	0	0	3	4
4	0	1	1	6
11	11	11	16	49

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
1	1	5	3	10
2	1	2	0	5
1	1	1	2	5
1	0	6	0	7
1	0	3	2	6
0	0	1	0	1
1	1	0	1	3
1	3	2	4	10
8	7	20	12	47
0	4	1	4	9
4	5	4	3	16
1	1	2	1	5
0	1	1	2	4
1	0	2	0	3
0	0	0	2	2
1	0	0	3	4
4	0	1	1	6
11	11	11	16	49

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

DATE: Tue, Nov 15, 16  
 LOCATION: NORTH & SOUTH: Long Beach Shopkeeper  
 EAST & WEST: 2nd  
 PROJECT #: SC1123  
 LOCATION #: 18  
 CONTROL: SIGNAL

NOTES:

AM		▲	
PM	◀ W	N	E ▶
MD			
OTHER		S	
OTHER		▼	

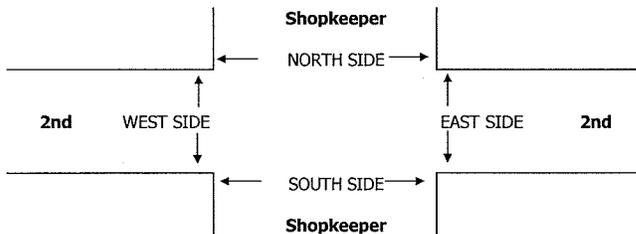
Add U-Turns to Left Turns

LANES:	NORTHBOUND Shopkeeper			SOUTHBOUND Shopkeeper			EASTBOUND 2nd			WESTBOUND 2nd			TOTAL
	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	
7:00 AM	11	0	12	0	0	0	2	379	4	13	313	1	735
7:15 AM	10	1	15	0	0	1	2	462	3	21	304	0	819
7:30 AM	8	1	11	0	1	0	2	467	3	21	383	0	897
7:45 AM	6	0	18	0	0	0	1	444	5	28	390	0	892
8:00 AM	13	0	11	0	1	0	4	369	10	45	414	0	867
8:15 AM	15	1	18	0	3	0	6	357	13	36	251	0	700
8:30 AM	10	1	21	0	1	0	1	348	9	33	321	1	746
8:45 AM	15	1	10	0	2	0	1	275	13	37	368	0	722
VOLUMES	88	5	116	0	8	1	19	3,101	60	234	2,744	2	6,378
APPROACH %	42%	2%	56%	0%	89%	11%	1%	98%	2%	8%	92%	0%	
APP/DEPART	209	/	7	9	/	299	3,180	/	3,220	2,980	/	2,852	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	37	2	55	0	2	1	9	1,742	21	115	1,491	0	3,475
APPROACH %	39%	2%	59%	0%	67%	33%	1%	98%	1%	7%	93%	0%	
PEAK HR FACTOR	0.904			0.750			0.939			0.875			0.969
APP/DEPART	94	/	2	3	/	135	1,772	/	1,800	1,606	/	1,538	0
4:00 PM	28	0	36	0	0	0	6	443	13	46	420	0	992
4:15 PM	37	0	50	0	0	0	2	395	19	43	396	0	942
4:30 PM	34	0	40	0	1	0	4	399	11	71	381	1	942
4:45 PM	41	0	47	0	0	0	11	412	15	64	405	0	995
5:00 PM	35	0	48	0	0	0	10	410	15	70	406	0	994
5:15 PM	45	1	60	0	0	0	3	397	13	57	463	0	1,039
5:30 PM	42	0	42	0	0	0	6	402	13	64	353	0	922
5:45 PM	33	0	33	0	1	0	3	426	14	55	384	0	949
VOLUMES	295	1	356	0	2	0	45	3,284	113	470	3,208	1	7,775
APPROACH %	45%	0%	55%	0%	100%	0%	1%	95%	3%	13%	87%	0%	
APP/DEPART	652	/	2	2	/	579	3,442	/	3,646	3,679	/	3,548	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	155	1	195	0	1	0	28	1,618	54	262	1,655	1	3,970
APPROACH %	44%	0%	56%	0%	100%	0%	2%	95%	3%	14%	86%	0%	
PEAK HR FACTOR	0.828			0.250			0.970			0.922			0.955
APP/DEPART	351	/	2	1	/	313	1,700	/	1,817	1,918	/	1,838	0

**U-TURNS**

NB	SB	EB	WB	TTL
0	0	2	0	2
0	0	2	2	4
0	0	2	1	3
0	0	1	0	1
0	0	4	0	4
0	0	6	0	6
0	0	1	0	1
0	0	1	0	1
0	0	19	3	22

0	0	6	1	7
0	0	2	1	3
0	0	4	1	5
0	0	11	0	11
0	0	10	2	12
0	0	3	1	4
0	0	6	0	6
0	0	3	0	3
0	0	45	6	51



AM	PM
7:00 AM	4:00 PM
7:15 AM	4:15 PM
7:30 AM	4:30 PM
7:45 AM	4:45 PM
8:00 AM	5:00 PM
8:15 AM	5:15 PM
8:30 AM	5:30 PM
8:45 AM	5:45 PM
TOTAL	TOTAL

**PEDESTRIAN + BIKE CROSSINGS**

N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	2	0	0	2
0	0	0	0	0
1	0	0	0	1
1	1	0	0	2
1	0	0	1	2
0	0	0	0	0
0	1	0	0	1
1	0	0	0	1
4	4	0	1	9
0	1	0	0	1
2	5	0	0	7
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
1	0	0	0	1
3	7	0	0	10

**PEDESTRIAN CROSSINGS**

N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
1	1	0	1	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

**BICYCLE CROSSINGS**

NS	SS	ES	WS	TOTAL
0	2	0	0	2
0	0	0	0	0
1	0	0	0	1
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
3	3	0	0	6
0	1	0	0	1
2	5	0	0	7
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
3	6	0	0	9

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Studebaker 2nd	<b>PROJECT #:</b> SC1123	<b>LOCATION #:</b> 19	<b>CONTROL:</b> SIGNAL
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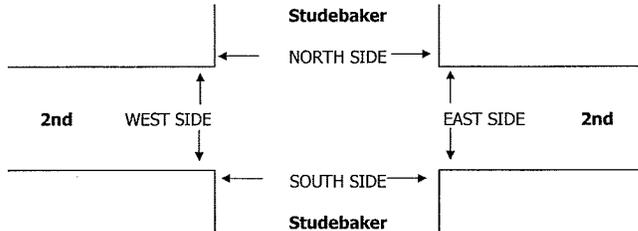
<b>NOTES:</b>	AM	
	PM	
	MD	
	OTHER	
	OTHER	

Add U-Turns to Left Turns

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

U-TURNS				
NB	SB	EB	WB	TTL

<b>AM</b>	7:00 AM	0	0	0	165	0	145	244	159	0	0	185	91	989	0	0	0	0	0
	7:15 AM	0	0	0	154	0	135	233	246	0	0	214	127	1,109	0	0	0	0	0
	7:30 AM	0	0	0	142	0	169	251	237	0	0	250	133	1,182	0	0	0	0	0
	7:45 AM	0	0	0	120	0	160	232	222	0	0	238	114	1,086	0	0	0	0	0
	8:00 AM	0	0	0	116	0	203	218	174	0	0	248	113	1,072	0	0	0	0	0
	8:15 AM	0	0	0	86	0	157	200	171	0	0	131	73	818	0	0	0	0	0
	8:30 AM	0	0	0	71	0	142	222	133	0	0	209	106	883	0	0	0	0	0
	8:45 AM	0	0	0	63	0	196	166	119	0	0	213	120	877	0	0	0	0	0
	<b>VOLUMES</b>	0	0	0	917	0	1,307	1,766	1,461	0	0	1,688	877	8,016	0	0	0	0	0
	<b>APPROACH %</b>	0%	0%	0%	41%	0%	59%	55%	45%	0%	0%	66%	34%						
<b>APP/DEPART</b>	0	/	2,643	2,224	/	0	3,227	/	2,378	2,565	/	2,995	0						
<b>BEGIN PEAK HR</b>	7:15 AM																		
<b>VOLUMES</b>	0	0	0	532	0	667	934	879	0	0	950	487	4,449						
<b>APPROACH %</b>	0%	0%	0%	44%	0%	56%	52%	48%	0%	0%	66%	34%							
<b>PEAK HR FACTOR</b>	0.000			0.940			0.929			0.938			0.941						
<b>APP/DEPART</b>	0	/	1,421	1,199	/	0	1,813	/	1,411	1,437	/	1,617	0						
<b>PM</b>	4:00 PM	0	0	0	80	0	267	286	174	0	0	187	136	1,130	0	0	0	0	0
	4:15 PM	0	0	0	89	0	246	276	185	0	0	200	138	1,134	0	0	0	0	0
	4:30 PM	0	0	0	82	0	216	198	126	0	0	169	141	932	0	0	0	0	0
	4:45 PM	0	0	0	90	0	225	315	217	0	0	243	177	1,267	0	0	0	0	0
	5:00 PM	0	0	0	103	0	272	313	170	0	0	254	182	1,294	0	0	0	0	0
	5:15 PM	0	0	0	132	0	231	288	177	0	0	277	174	1,279	0	0	0	0	0
	5:30 PM	0	0	0	99	0	204	221	229	0	0	252	111	1,116	0	0	0	0	0
	5:45 PM	0	0	0	101	0	192	233	241	0	0	237	76	1,080	0	0	0	0	0
	<b>VOLUMES</b>	0	0	0	776	0	1,853	2,130	1,519	0	0	1,819	1,135	9,232	0	0	0	0	0
	<b>APPROACH %</b>	0%	0%	0%	30%	0%	70%	58%	42%	0%	0%	62%	38%						
<b>APP/DEPART</b>	0	/	3,265	2,629	/	0	3,649	/	2,295	2,954	/	3,672	0						
<b>BEGIN PEAK HR</b>	4:45 PM																		
<b>VOLUMES</b>	0	0	0	424	0	932	1,137	793	0	0	1,026	644	4,956						
<b>APPROACH %</b>	0%	0%	0%	31%	0%	69%	59%	41%	0%	0%	61%	39%							
<b>PEAK HR FACTOR</b>	0.000			0.904			0.907			0.926			0.957						
<b>APP/DEPART</b>	0	/	1,781	1,356	/	0	1,930	/	1,217	1,670	/	1,958	0						



<b>AM</b>	7:00 AM	0	2	1	1	4
	7:15 AM	0	0	0	0	0
	7:30 AM	1	0	0	0	1
	7:45 AM	2	1	0	0	3
	8:00 AM	0	1	0	1	2
	8:15 AM	0	1	0	1	2
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	1	0	1
	<b>TOTAL</b>	3	5	2	3	13
	<b>PM</b>	4:00 PM	0	0	0	0
4:15 PM		0	1	0	0	1
4:30 PM		0	0	0	0	0
4:45 PM		0	0	0	0	0
5:00 PM		0	0	0	0	0
5:15 PM		1	0	0	0	1
5:30 PM		0	0	0	0	0
5:45 PM		0	0	0	0	0
<b>TOTAL</b>	1	1	0	0	2	

PEDESTRIAN + BIKE CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL

**INTERSECTION TURNING MOVEMENT COUNTS**

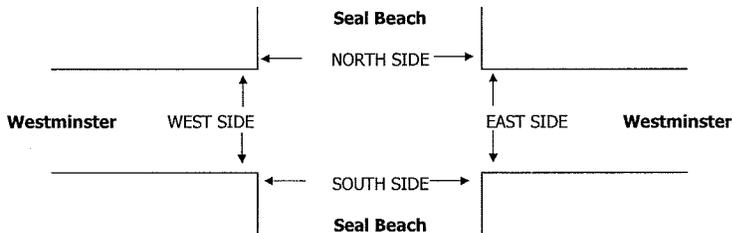
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Seal Beach Westminster	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 20 <b>CONTROL:</b> SIGNAL
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<b>NOTES:</b>	AM	▲ N ◀ W      E ▶ S ▼
	PM	
	MD	
	OTHER	
	OTHER	

Add U-Turns to Left Turns

LANES:	NORTHBOUND Seal Beach			SOUTHBOUND Seal Beach			EASTBOUND Westminster			WESTBOUND Westminster			TOTAL	U-TURNS				
	NL 1	NT 3	NR 0	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 2	WR 0		NB 0	SB 0	EB 0	WB 0	TTL
7:00 AM	4	152	44	106	195	73	26	201	10	55	269	43	1,178	0	0	0	0	0
7:15 AM	10	161	49	129	232	84	46	247	7	64	300	46	1,375	0	0	0	0	0
7:30 AM	14	163	62	114	296	100	49	236	11	67	319	43	1,474	0	1	0	1	2
7:45 AM	18	200	62	85	246	112	65	199	7	69	308	60	1,431	0	2	1	0	3
8:00 AM	12	213	44	64	232	127	46	159	8	56	286	80	1,327	0	2	1	2	5
8:15 AM	19	197	43	69	221	102	55	159	4	46	250	35	1,200	0	1	0	1	2
8:30 AM	7	155	32	62	218	71	38	143	3	55	276	93	1,153	0	1	0	0	1
8:45 AM	13	170	37	46	186	84	35	114	10	51	263	86	1,095	1	1	0	0	2
VOLUMES	97	1,411	373	675	1,826	753	360	1,458	60	463	2,271	486	10,233	1	8	2	4	15
APPROACH %	5%	75%	20%	21%	56%	23%	19%	78%	3%	14%	71%	15%						
APP/DEPART	1,881	/	2,263	3,254	/	2,346	1,878	/	2,502	3,220	/	3,122	0					
BEGIN PEAK HR	7:15 AM																	
VOLUMES	54	737	217	392	1,006	423	206	841	33	256	1,213	229	5,607					
APPROACH %	5%	73%	22%	22%	55%	23%	19%	78%	3%	15%	71%	13%						
PEAK HR FACTOR	0.900			0.893			0.900			0.971			0.951					
APP/DEPART	1,008	/	1,175	1,821	/	1,292	1,080	/	1,448	1,698	/	1,692	0					
4:00 PM	21	250	60	56	194	64	110	201	7	66	169	104	1,302	0	1	0	0	1
4:15 PM	13	177	48	35	155	60	97	212	10	82	202	89	1,180	1	0	2	0	3
4:30 PM	15	193	47	82	224	59	117	184	6	60	215	78	1,280	0	0	2	0	2
4:45 PM	18	193	46	35	219	62	108	225	5	69	241	116	1,337	0	0	1	0	1
5:00 PM	9	233	56	59	200	65	121	252	4	66	211	92	1,368	0	3	1	0	4
5:15 PM	16	230	39	60	178	67	95	217	7	70	227	104	1,310	0	5	0	0	5
5:30 PM	17	195	41	64	157	70	114	229	8	62	224	75	1,256	0	0	0	1	1
5:45 PM	10	202	32	74	187	63	99	231	8	70	214	66	1,256	0	1	0	0	1
VOLUMES	119	1,673	369	465	1,514	510	861	1,751	55	545	1,703	724	10,289	1	10	6	1	18
APPROACH %	6%	77%	17%	19%	61%	20%	32%	66%	2%	18%	57%	24%						
APP/DEPART	2,161	/	3,262	2,489	/	2,114	2,667	/	2,576	2,972	/	2,337	0					
BEGIN PEAK HR	4:30 PM																	
VOLUMES	58	849	188	236	821	253	441	878	22	265	894	390	5,295					
APPROACH %	5%	78%	17%	18%	63%	19%	33%	65%	2%	17%	58%	25%						
PEAK HR FACTOR	0.919			0.897			0.889			0.909			0.968					
APP/DEPART	1,095	/	1,684	1,310	/	1,108	1,341	/	1,294	1,549	/	1,209	0					



	AM	PM
7:00 AM		
7:15 AM		
7:30 AM		
7:45 AM		
8:00 AM		
8:15 AM		
8:30 AM		
8:45 AM		
TOTAL		
4:00 PM		
4:15 PM		
4:30 PM		
4:45 PM		
5:00 PM		
5:15 PM		
5:30 PM		
5:45 PM		
TOTAL		

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	6	6	1	13
1	3	1	0	5
0	0	0	0	0
1	0	0	1	2
0	1	0	0	1
0	1	0	0	1
2	1	1	4	8
0	0	0	3	3
4	12	8	9	33
1	1	1	0	3
2	0	0	3	5
3	1	0	4	8
2	1	0	2	5
0	1	0	1	2
0	0	1	0	1
0	0	0	0	0
0	1	0	9	10
8	5	2	19	34

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	5	6	1	12
1	1	0	0	2
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
0	0	0	1	1
2	6	6	6	20
1	0	1	0	2
2	0	0	1	3
2	0	0	2	4
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	9	9
5	0	1	13	19

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	0	0	1
0	2	1	0	3
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
2	1	1	1	5
0	0	0	2	2
2	6	2	3	13
0	1	0	0	1
0	0	0	2	2
1	1	0	2	4
2	1	0	1	4
0	1	0	1	2
0	0	1	0	1
0	0	0	0	0
0	1	0	0	1
3	5	1	6	15



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

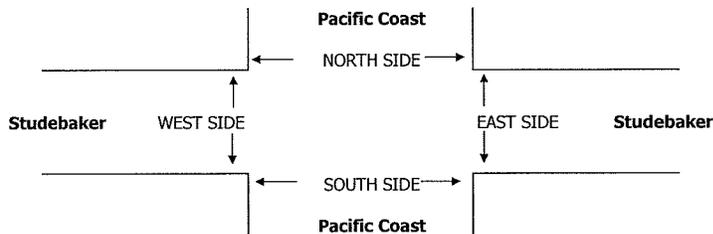
DATE: Tue, Nov 29, 16	LOCATION: NORTH & SOUTH: EAST & WEST:	Long Beach Pacific Coast Studebaker	PROJECT #: LOCATION #: CONTROL:	SC1123 22 SIGNAL
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NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E ▼	<input checked="" type="checkbox"/> Add U-Turns to Left Turns
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Pacific Coast			Pacific Coast			Studebaker			Studebaker			
LANES:	NL 1	NT 3	NR 1	SL 1	ST 2	SR 1	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	
7:00 AM	6	414	0	1	393	15	9	1	56	2	0	3	900
7:15 AM	7	432	2	0	452	18	9	3	66	5	0	1	995
7:30 AM	8	460	4	0	344	13	17	0	62	3	3	2	916
7:45 AM	10	476	3	2	309	28	10	2	52	2	0	0	894
8:00 AM	10	480	7	2	329	30	12	4	71	2	1	1	949
8:15 AM	18	438	5	2	266	16	16	4	58	3	1	0	827
8:30 AM	12	433	10	3	292	20	7	2	51	7	1	1	839
8:45 AM	12	385	6	4	281	25	17	0	40	2	3	1	776
VOLUMES	83	3,518	37	14	2,666	165	97	16	456	26	9	9	7,096
APPROACH %	2%	97%	1%	0%	94%	6%	17%	3%	80%	59%	20%	20%	
APP/DEPART	3,638	/	3,627	2,845	/	3,148	569	/	64	44	/	257	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	35	1,848	16	4	1,434	89	48	9	251	12	4	4	3,754
APPROACH %	2%	97%	1%	0%	94%	6%	16%	3%	81%	60%	20%	20%	
PEAK HR FACTOR	0.955			0.812			0.885			0.625			0.943
APP/DEPART	1,899	/	1,900	1,527	/	1,697	308	/	29	20	/	128	0
4:00 PM	19	308	12	3	307	23	47	0	62	12	7	9	809
4:15 PM	29	341	14	10	300	35	40	5	45	13	3	6	841
4:30 PM	37	321	9	7	349	30	46	4	52	15	11	4	885
4:45 PM	35	352	6	6	315	31	37	5	61	15	8	5	876
5:00 PM	44	323	10	5	305	25	46	3	69	26	5	4	865
5:15 PM	33	396	12	8	315	27	38	4	73	14	13	7	940
5:30 PM	40	346	1	9	330	18	35	3	74	23	16	11	906
5:45 PM	27	322	6	6	288	21	26	2	48	11	8	5	770
VOLUMES	264	2,709	70	54	2,509	210	315	26	484	129	71	51	6,892
APPROACH %	9%	89%	2%	2%	90%	8%	38%	3%	59%	51%	28%	20%	
APP/DEPART	3,043	/	3,082	2,773	/	3,124	825	/	142	251	/	544	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	152	1,417	29	28	1,265	101	156	15	277	78	42	27	3,587
APPROACH %	10%	89%	2%	2%	91%	7%	35%	3%	62%	53%	29%	18%	
PEAK HR FACTOR	0.906			0.976			0.949			0.735			0.954
APP/DEPART	1,598	/	1,603	1,394	/	1,622	448	/	68	147	/	294	0

U-TURNS				
NB	SB	EB	WB	TTL
0	1	0	0	1
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	2	0	0	2
0	0	0	0	0
0	3	0	0	3

0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	1	0	0	1
2	2	0	0	4
0	2	0	0	2
2	8	1	0	11



	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	2	0	4	5	11
7:15 AM	0	0	2	0	2
7:30 AM	2	1	1	3	7
7:45 AM	2	0	3	2	7
8:00 AM	0	0	1	1	2
8:15 AM	2	2	3	4	11
8:30 AM	3	0	5	2	10
8:45 AM	1	0	3	1	5
TOTAL	12	3	22	18	55
4:00 PM	5	0	3	0	8
4:15 PM	2	0	0	2	4
4:30 PM	3	0	2	3	8
4:45 PM	2	0	1	0	3
5:00 PM	3	2	0	3	8
5:15 PM	1	0	1	9	11
5:30 PM	0	0	1	1	2
5:45 PM	0	0	1	3	4
TOTAL	16	2	9	21	48

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	2	0	0	2	4
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	2	0	0	0	2
8:30 AM	0	0	1	1	2
8:45 AM	0	0	0	0	0
TOTAL	5	0	1	3	9
4:00 PM	3	0	0	0	3
4:15 PM	1	0	0	1	2
4:30 PM	2	0	0	1	3
4:45 PM	2	0	0	0	2
5:00 PM	3	0	0	1	4
5:15 PM	0	0	1	9	10
5:30 PM	0	0	1	1	2
5:45 PM	0	0	0	2	2
TOTAL	11	0	2	15	28

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	4	3	7
7:15 AM	0	0	2	0	2
7:30 AM	2	1	1	3	7
7:45 AM	1	0	3	2	6
8:00 AM	0	0	1	1	2
8:15 AM	0	2	3	4	9
8:30 AM	3	0	4	1	8
8:45 AM	1	0	3	1	5
TOTAL	7	3	21	15	46
4:00 PM	2	0	3	0	5
4:15 PM	1	0	0	1	2
4:30 PM	1	0	2	2	5
4:45 PM	0	0	1	0	1
5:00 PM	0	2	0	2	4
5:15 PM	1	0	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	1	2
TOTAL	5	2	7	6	20

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Pacific Coast Marina	<b>PROJECT #:</b> SC1123 <b>LOCATION #:</b> 23 <b>CONTROL:</b> STOP E
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<b>NOTES:</b>	AM		▲	
	PM		N	
	MD	← W		E →
	OTHER		S	
	OTHER		▼	

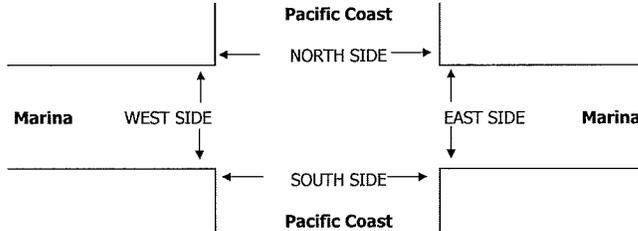
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Pacific Coast	Pacific Coast	Pacific Coast	Marina	Marina	Marina	Marina	Marina	Marina	Marina	Marina		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	

U-TURNS				
NB	SB	EB	WB	TTL

<b>AM</b>	7:00 AM	19	337	0	0	475	0	0	27	0	0	0	858	0	0	0	0	0	
	7:15 AM	17	434	0	0	550	3	0	41	0	0	0	1,045	0	0	0	0	0	
	7:30 AM	22	423	0	0	504	4	0	34	0	0	0	987	0	0	0	0	0	
	7:45 AM	40	474	0	0	363	4	0	33	0	0	0	914	0	0	0	0	0	
	8:00 AM	43	440	0	0	352	2	0	22	0	0	0	859	0	0	0	0	0	
	8:15 AM	37	365	0	0	333	7	0	31	0	0	0	773	0	0	0	0	0	
	8:30 AM	29	387	0	0	299	6	0	24	0	0	0	745	0	0	0	0	0	
	8:45 AM	35	433	0	0	289	1	0	36	0	0	0	794	0	0	0	0	0	
	<b>VOLUMES</b>	242	3,293	0	0	3,165	27	0	0	248	0	0	0	6,975	0	0	0	0	0
	<b>APPROACH %</b>	7%	93%	0%	0%	99%	1%	0%	0%	100%	0%	0%	0%						
<b>APP/DEPART</b>	3,535	/	3,293	3,192	/	3,413	248	/	0	0	/	269	0						
<b>BEGIN PEAK HR</b>	7:15 AM																		
<b>VOLUMES</b>	122	1,771	0	0	1,769	13	0	0	130	0	0	0	3,805						
<b>APPROACH %</b>	6%	94%	0%	0%	99%	1%	0%	0%	100%	0%	0%	0%							
<b>PEAK HR FACTOR</b>	0.921													0.793	0.000	0.910			
<b>APP/DEPART</b>	1,893	/	1,771	1,782	/	1,899	130	/	0	0	/	135	0						
<b>PM</b>	4:00 PM	44	268	0	0	263	3	0	33	0	0	0	611	0	0	0	0	0	
	4:15 PM	61	327	0	0	321	0	0	26	0	0	0	735	0	0	0	0	0	
	4:30 PM	42	345	0	0	356	9	0	40	0	0	0	792	0	0	0	0	0	
	4:45 PM	54	333	0	0	356	9	0	30	0	0	0	782	0	0	0	0	0	
	5:00 PM	41	359	0	0	357	5	0	31	0	0	0	793	0	0	0	0	0	
	5:15 PM	65	370	0	0	359	5	0	23	0	0	0	822	0	0	0	0	0	
	5:30 PM	54	365	0	0	351	7	0	38	0	0	0	815	0	0	0	0	0	
	5:45 PM	58	342	0	0	341	6	0	17	0	0	0	764	0	0	0	0	0	
	<b>VOLUMES</b>	419	2,709	0	0	2,704	44	0	0	238	0	0	0	6,114	0	0	0	0	0
	<b>APPROACH %</b>	13%	87%	0%	0%	98%	2%	0%	0%	100%	0%	0%	0%						
<b>APP/DEPART</b>	3,128	/	2,709	2,748	/	2,942	238	/	0	0	/	463	0						
<b>BEGIN PEAK HR</b>	4:45 PM																		
<b>VOLUMES</b>	214	1,427	0	0	1,423	26	0	0	122	0	0	0	3,212						
<b>APPROACH %</b>	13%	87%	0%	0%	98%	2%	0%	0%	100%	0%	0%	0%							
<b>PEAK HR FACTOR</b>	0.943													0.992	0.803	0.000	0.977		
<b>APP/DEPART</b>	1,641	/	1,427	1,449	/	1,545	122	/	0	0	/	240	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	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	0	0	0
0	0	0	0	0	0



<b>AM</b>	7:00 AM	0	0	6	1	7
	7:15 AM	0	0	0	6	6
	7:30 AM	0	0	2	5	7
	7:45 AM	0	0	8	3	11
	8:00 AM	0	0	7	7	14
	8:15 AM	0	0	16	21	37
	8:30 AM	0	0	6	8	14
	8:45 AM	0	0	2	1	3
	<b>TOTAL</b>	0	0	47	52	99
	<b>PM</b>	4:00 PM	0	0	0	8
4:15 PM		0	0	2	5	7
4:30 PM		0	0	3	0	3
4:45 PM		2	0	3	1	6
5:00 PM		0	0	1	4	5
5:15 PM		0	0	0	4	4
5:30 PM		0	0	0	1	1
5:45 PM		0	0	0	2	2
<b>TOTAL</b>		2	0	9	25	36

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Nov 15, 16  
 LOCATION: NORTH & SOUTH: Pacific Coast  
 EAST & WEST: Bolsa  
 PROJECT #: SC1123  
 LOCATION #: 24  
 CONTROL: SIGNAL

NOTES:

AM	
PM	
MD	
OTHER	

Add U-Turns to Left Turns

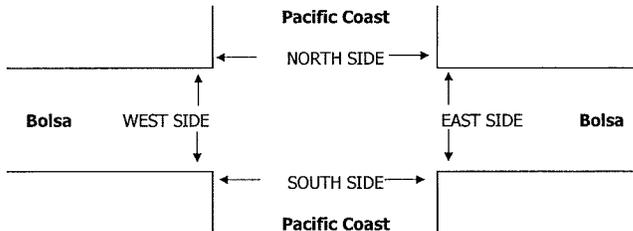
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

7:00 AM	6	340	1	7	495	8	8	6	12	1	4	19	907
7:15 AM	7	398	0	10	548	7	13	5	22	2	2	14	1,028
7:30 AM	9	405	0	22	480	10	12	23	7	4	10	23	1,005
7:45 AM	12	462	4	24	359	15	19	12	14	5	14	29	969
8:00 AM	17	419	4	10	341	20	14	5	17	2	14	46	909
8:15 AM	9	373	2	12	332	18	14	6	15	5	6	15	807
8:30 AM	14	420	0	11	324	19	9	7	10	1	8	20	843
8:45 AM	20	396	2	20	266	19	15	7	18	7	15	17	802
VOLUMES	94	3,213	13	116	3,145	116	104	71	115	27	73	183	7,270
APPROACH %	3%	97%	0%	3%	93%	3%	36%	24%	40%	10%	26%	65%	
APP/DEPART	3,320	/	3,503	3,377	/	3,287	290	/	198	283	/	282	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	45	1,684	8	66	1,728	52	58	45	60	13	40	112	3,911
APPROACH %	3%	97%	0%	4%	94%	3%	36%	28%	37%	8%	24%	68%	
PEAK HR FACTOR	0.908												
APP/DEPART	1,737	/	1,856	1,846	/	1,800	163	/	118	165	/	137	0
4:00 PM	16	291	6	28	273	20	18	20	18	5	18	39	752
4:15 PM	21	314	5	26	304	24	15	16	8	7	11	51	802
4:30 PM	13	311	9	27	336	25	17	14	23	7	12	40	834
4:45 PM	24	356	3	38	363	21	20	12	19	5	17	42	920
5:00 PM	15	323	4	27	342	21	21	17	20	5	20	49	864
5:15 PM	23	392	5	27	367	20	16	14	16	3	15	37	935
5:30 PM	16	350	2	20	342	21	17	10	13	6	11	42	850
5:45 PM	21	350	2	22	311	33	15	10	11	6	11	30	822
VOLUMES	149	2,687	36	215	2,638	185	139	113	128	44	115	330	6,779
APPROACH %	5%	94%	1%	7%	87%	6%	37%	30%	34%	9%	24%	67%	
APP/DEPART	2,872	/	3,158	3,038	/	2,812	380	/	362	489	/	447	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	78	1,421	14	112	1,414	83	74	53	68	19	63	170	3,569
APPROACH %	5%	94%	1%	7%	88%	5%	38%	27%	35%	8%	25%	67%	
PEAK HR FACTOR	0.901												
APP/DEPART	1,513	/	1,665	1,609	/	1,501	195	/	179	252	/	224	0

0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
1	3	0	1	5

0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
2	2	0	0	4



	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	2	6	5	8	21
7:15 AM	3	6	4	5	18
7:30 AM	8	6	1	6	21
7:45 AM	4	4	6	5	19
8:00 AM	1	4	7	5	17
8:15 AM	5	2	8	21	36
8:30 AM	3	4	4	10	21
8:45 AM	5	3	6	8	22
TOTAL	31	35	41	68	175
4:00 PM	5	9	0	8	22
4:15 PM	6	8	4	10	28
4:30 PM	6	4	7	4	21
4:45 PM	4	4	5	4	17
5:00 PM	5	3	3	9	20
5:15 PM	12	3	2	12	29
5:30 PM	2	9	1	7	19
5:45 PM	6	5	0	11	22
TOTAL	46	45	22	65	178

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	2	6	1	5	14
7:15 AM	2	6	3	2	13
7:30 AM	8	6	0	5	19
7:45 AM	3	4	0	1	8
8:00 AM	1	2	1	0	4
8:15 AM	5	2	2	5	14
8:30 AM	1	4	1	5	11
8:45 AM	5	2	4	6	17
TOTAL	27	32	12	29	100
4:00 PM	3	6	0	4	13
4:15 PM	5	8	3	4	20
4:30 PM	6	2	5	3	16
4:45 PM	4	4	1	3	12
5:00 PM	5	3	1	5	14
5:15 PM	12	3	0	11	26
5:30 PM	1	9	0	6	16
5:45 PM	6	5	0	8	19
TOTAL	42	40	10	44	136

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	4	3	7
7:15 AM	1	0	1	3	5
7:30 AM	0	0	1	1	2
7:45 AM	1	0	6	4	11
8:00 AM	0	2	6	5	13
8:15 AM	0	0	6	16	22
8:30 AM	2	0	3	5	10
8:45 AM	0	1	2	2	5
TOTAL	4	3	29	39	75
4:00 PM	2	3	0	4	9
4:15 PM	1	0	1	6	8
4:30 PM	0	2	2	1	5
4:45 PM	0	0	4	1	5
5:00 PM	0	0	2	4	6
5:15 PM	0	0	2	1	3
5:30 PM	1	0	1	1	3
5:45 PM	0	0	0	3	3
TOTAL	4	5	12	21	42

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T816

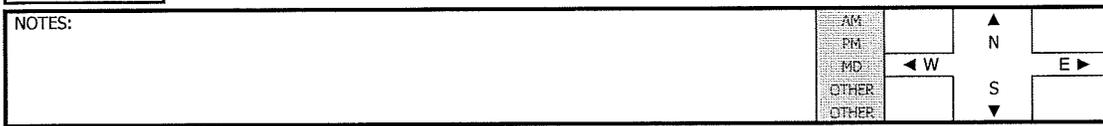
DATE:  
Tue, Nov 15, 16

LOCATION:  
NORTH & SOUTH:  
EAST & WEST:

Long Beach  
Pacific Coast  
Seal Beach

PROJECT #:  
LOCATION #:  
CONTROL:

SC1123  
26  
SIGNAL

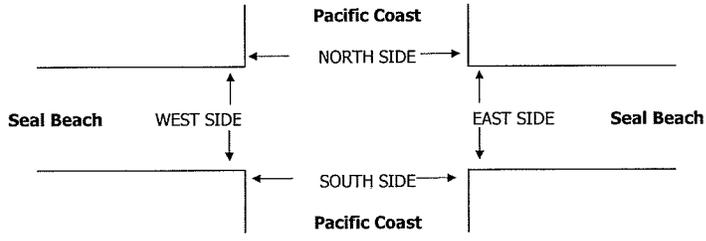


	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Pacific Coast			Pacific Coast			Seal Beach			Seal Beach			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1.5	ER 0.5	WL 2	WT 1	WR 1	
7:00 AM	3	308	95	36	459	1	4	40	30	128	18	36	1,158
7:15 AM	7	361	121	29	539	2	2	43	14	139	26	46	1,329
7:30 AM	6	409	143	40	475	2	3	67	25	106	20	30	1,326
7:45 AM	9	398	129	40	316	33	2	59	20	107	35	64	1,212
8:00 AM	8	360	121	44	254	6	3	48	21	161	44	63	1,133
8:15 AM	11	380	124	44	370	10	2	40	23	115	23	37	1,179
8:30 AM	15	355	131	27	261	5	3	33	24	127	30	39	1,050
8:45 AM	12	350	128	42	254	4	6	27	21	109	29	51	1,033
VOLUMES	71	2,921	992	302	2,928	63	25	357	178	992	225	366	9,420
APPROACH %	2%	73%	25%	9%	89%	2%	4%	64%	32%	63%	14%	23%	
APP/DEPART	3,984	/	3,315	3,293	/	4,105	560	/	1,650	1,583	/	350	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	25	1,476	488	145	1,789	38	11	209	89	480	99	176	5,025
APPROACH %	1%	74%	25%	7%	91%	2%	4%	68%	29%	64%	13%	23%	
PEAK HR FACTOR	0.891			0.865			0.813			0.895			0.945
APP/DEPART	1,989	/	1,663	1,972	/	2,362	309	/	843	755	/	157	0
4:00 PM	16	241	104	70	229	6	3	35	17	125	37	58	941
4:15 PM	13	283	102	43	268	7	1	32	23	89	41	81	983
4:30 PM	26	291	108	55	296	8	6	30	19	110	32	70	1,051
4:45 PM	13	317	118	47	313	6	3	30	17	104	50	65	1,083
5:00 PM	12	276	109	51	298	11	4	37	12	152	55	65	1,082
5:15 PM	23	323	116	52	279	15	4	41	18	117	54	67	1,109
5:30 PM	25	321	119	52	295	13	8	38	22	96	31	64	1,084
5:45 PM	20	318	105	36	303	10	9	25	10	84	26	63	1,009
VOLUMES	148	2,370	881	406	2,281	76	38	268	138	877	326	533	8,342
APPROACH %	4%	70%	26%	15%	83%	3%	9%	60%	31%	51%	19%	31%	
APP/DEPART	3,399	/	2,952	2,763	/	3,304	444	/	1,543	1,736	/	543	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	73	1,237	462	202	1,185	45	19	146	69	469	190	261	4,358
APPROACH %	4%	70%	26%	14%	83%	3%	8%	62%	29%	51%	21%	28%	
PEAK HR FACTOR	0.953			0.978			0.860			0.846			0.982
APP/DEPART	1,772	/	1,523	1,432	/	1,726	234	/	805	920	/	304	0

**U-TURNS**

NB	SB	EB	WB	TTL
0	0	0	1	1
4	0	0	0	4
0	0	0	0	0
1	0	0	0	1
0	0	0	1	1
2	1	0	0	3
1	0	0	0	1
1	2	0	0	3
9	3	0	2	14

0	1	0	0	1
1	2	0	0	3
3	3	1	0	7
0	1	0	0	1
1	2	0	1	4
0	1	0	0	1
3	2	0	0	5
1	1	1	0	3
9	13	2	1	25



AM	PM
7:00 AM	4:00 PM
7:15 AM	4:15 PM
7:30 AM	4:30 PM
7:45 AM	4:45 PM
8:00 AM	5:00 PM
8:15 AM	5:15 PM
8:30 AM	5:30 PM
8:45 AM	5:45 PM
TOTAL	TOTAL

**PEDESTRIAN + BIKE CROSSINGS**

N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	8	2	12
0	0	2	5	7
12	0	2	1	15
5	0	6	2	13
5	1	5	3	14
0	0	4	18	22
2	0	1	7	10
1	3	2	5	11
26	5	30	43	104
0	0	0	2	2
1	0	3	5	9
0	1	3	4	8
1	0	8	7	16
3	3	3	20	29
2	2	4	8	16
2	0	0	5	7
2	0	0	1	3
11	6	21	52	90

**PEDESTRIAN CROSSINGS**

N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	1	0	2
0	0	0	0	0
12	0	0	0	12
5	0	0	0	5
4	0	0	0	4
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
23	0	1	1	25
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
1	0	0	5	6
2	0	1	16	19
1	0	1	6	8
2	0	0	4	6
2	0	0	1	3
8	0	2	33	43

**BICYCLE CROSSINGS**

NS	SS	ES	WS	TOTAL
0	1	7	2	10
0	0	2	5	7
0	0	2	1	3
0	0	6	2	8
1	1	5	3	10
0	0	4	18	22
1	0	1	6	8
1	3	2	5	11
3	5	29	42	79
0	0	0	2	2
1	0	3	5	9
0	1	3	3	7
0	0	8	2	10
1	3	2	4	10
1	2	3	2	8
0	0	0	1	1
0	0	0	0	0
3	6	19	19	47

**INTERSECTION TURNING MOVEMENT COUNTS**

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

<b>DATE:</b> Tue, Nov 15, 16	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	Long Beach Seal Beach Bolsa	<b>PROJECT #:</b> SC1123	<b>LOCATION #:</b> 25	<b>CONTROL:</b> SIGNAL
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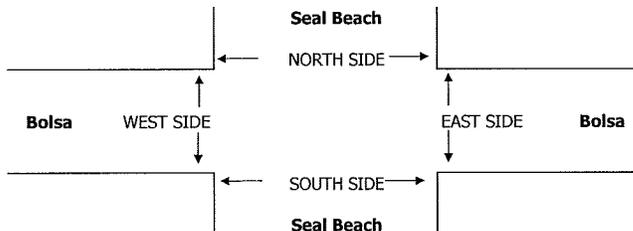
<b>NOTES:</b>	AM	▲	
	PM	▼	
	MD	◀	▶
	OTHER		
	OTHER		

Add U-Turns to Left Turns

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

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

<b>AM</b>	7:00 AM	1	172	4	4	207	21	38	0	9	0	3	15	474	0	1	0	0	1
	7:15 AM	8	188	1	4	158	30	61	2	18	6	1	12	489	5	0	0	0	5
	7:30 AM	6	219	1	4	205	86	63	2	7	1	2	5	601	5	0	0	0	5
	7:45 AM	2	203	1	4	194	46	67	0	23	1	0	9	550	1	0	0	0	1
	8:00 AM	2	220	1	0	181	43	83	0	25	1	1	10	567	1	0	0	0	1
	8:15 AM	1	210	2	0	183	29	45	0	5	1	0	11	487	0	0	0	0	0
	8:30 AM	0	187	0	4	198	37	20	1	3	0	0	8	458	0	0	0	0	0
	8:45 AM	3	202	1	4	156	47	37	0	7	1	0	7	465	0	0	0	0	0
	<b>VOLUMES</b>	23	1,601	11	24	1,482	339	414	5	97	11	7	77	4,091	12	1	0	0	13
	<b>APPROACH %</b>	1%	98%	1%	1%	80%	18%	80%	1%	19%	12%	7%	81%						
<b>APP/DEPART</b>	1,635	/	2,093	1,845	/	1,602	516	/	39	95	/	357	0						
<b>BEGIN PEAK HR</b>	7:15 AM																		
<b>VOLUMES</b>	18	830	4	12	738	205	274	4	73	9	4	36	2,207						
<b>APPROACH %</b>	2%	97%	0%	1%	77%	21%	78%	1%	21%	18%	8%	73%							
<b>PEAK HR FACTOR</b>	0.942																		
<b>APP/DEPART</b>	852	/	1,140	955	/	832	351	/	20	49	/	215	0						
<b>PM</b>	4:00 PM	1	192	1	11	185	77	68	2	11	2	2	4	556	0	0	0	0	0
	4:15 PM	2	167	3	13	223	82	49	3	2	1	1	5	551	0	0	0	0	0
	4:30 PM	2	175	3	9	200	87	38	4	9	2	3	8	540	0	0	0	0	0
	4:45 PM	0	183	5	12	239	65	45	2	8	0	3	3	565	0	0	0	0	0
	5:00 PM	3	185	4	11	235	70	48	2	7	1	2	5	573	0	0	0	0	0
	5:15 PM	2	197	4	8	227	68	32	2	5	3	0	6	554	1	0	0	0	1
	5:30 PM	5	197	1	7	190	63	44	2	4	5	2	6	526	0	0	0	0	0
	5:45 PM	2	158	4	8	199	75	38	2	2	1	1	2	492	0	0	0	0	0
	<b>VOLUMES</b>	17	1,454	25	79	1,698	587	362	19	48	15	14	39	4,357	1	0	0	0	1
	<b>APPROACH %</b>	1%	97%	2%	3%	72%	25%	84%	4%	11%	22%	21%	57%						
<b>APP/DEPART</b>	1,496	/	1,855	2,364	/	1,762	429	/	123	68	/	617	0						
<b>BEGIN PEAK HR</b>	4:30 PM																		
<b>VOLUMES</b>	7	740	16	40	901	290	163	10	29	6	8	22	2,232						
<b>APPROACH %</b>	1%	97%	2%	3%	73%	24%	81%	5%	14%	17%	22%	61%							
<b>PEAK HR FACTOR</b>	0.940																		
<b>APP/DEPART</b>	763	/	925	1,231	/	937	202	/	66	36	/	304	0						



<b>AM</b>	7:00 AM	0	6	7	1	14
	7:15 AM	0	2	0	3	5
	7:30 AM	0	25	1	4	30
	7:45 AM	1	30	0	0	31
	8:00 AM	0	11	0	0	11
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	1	1
	8:45 AM	0	0	1	3	4
	<b>TOTAL</b>	1	74	9	12	96
	<b>PM</b>	4:00 PM	0	2	2	0
4:15 PM		0	0	0	2	2
4:30 PM		0	0	0	0	0
4:45 PM		0	0	0	0	0
5:00 PM		0	0	0	0	0
5:15 PM		2	1	1	0	4
5:30 PM		0	0	0	0	0
5:45 PM		0	0	0	0	0
<b>TOTAL</b>		2	3	3	2	10

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	6	7	1	14
0	2	0	3	5
0	25	1	4	30
1	30	0	0	31
0	11	0	0	11
0	0	0	0	0
0	0	0	1	1
0	0	1	3	4
1	74	9	12	96
0	2	2	0	4
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	1	1	0	4
0	0	0	0	0
0	0	0	0	0
2	3	3	2	10

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	6	5	1	12
0	2	0	3	5
0	24	1	4	29
0	29	0	0	29
0	11	0	0	11
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	72	6	9	87
0	2	2	0	4
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	0	0	0	0
0	2	2	0	4

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	2	0	2
0	0	0	0	0
0	1	0	0	1
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	3	4
1	2	3	3	9
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	1	1	0	4
0	0	0	0	0
0	0	0	0	0
2	1	1	2	6



# Intersection Turning Movement

Prepared by:  
National Data & Surveying Services

Project ID: 15-5431-009

Day: Tuesday

City: Long Beach

Date: 7/14/2015

NS/EW Streets:	AM												TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	0	0	0	2	0	1	1	3	0	0	3	1	
7:00 AM	0	0	0	17	0	22	4	224	0	0	201	18	486
7:15 AM	0	0	0	17	0	19	3	278	0	0	233	16	566
7:30 AM	0	0	0	15	0	15	8	230	0	0	292	22	582
7:45 AM	0	0	0	14	0	21	4	277	0	0	269	29	614
8:00 AM	0	0	0	24	0	19	2	217	0	0	226	22	510
8:15 AM	0	0	0	14	0	13	6	249	0	0	244	20	546
8:30 AM	0	0	0	13	0	18	6	230	0	0	264	21	552
8:45 AM	0	0	0	18	0	17	6	244	0	0	260	27	572
<b>TOTAL VOLUMES :</b>	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
<b>APPROACH %'s :</b>	#DIV/0!	#DIV/0!	#DIV/0!	47.83%	0.00%	52.17%	1.96%	98.04%	0.00%	0.00%	91.91%	8.09%	4428

UTURNS			
NB	SB	EB	WB
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	0	0

PEAK HR START TIME													TOTAL
7:15 AM	0	0	0	17	0	19	3	1007	0	0	1020	89	2272
PEAK HR VOLUME	0	0	0	17	0	19	3	1007	0	0	1020	89	2272
PEAK HR FACTOR	0.000%	0.000%	0.000%	0.837%	0.000%	0.837%	0.154%	0.907%	0.000%	0.000%	0.883%	0.883%	0.925%

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:  
National Data & Surveying Services

Project ID: 15-5431-009

Day: Tuesday

City: Long Beach

Date: 7/14/2015

NS/EW Streets:	PM													TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		
LANES:	0	0	0	2	0	1	1	3	0	0	3	1		
4:00 PM	0	0	0	24	0	20	4	330	0	0	263	25	666	
4:15 PM	0	0	0	43	0	30	9	322	0	0	282	10	696	
4:30 PM	0	0	0	44	0	19	7	357	0	0	302	16	745	
4:45 PM	0	0	0	31	0	18	10	372	0	0	347	12	790	
5:00 PM	0	0	0	33	0	16	9	360	0	0	350	12	780	
5:15 PM	0	0	0	30	0	23	19	401	0	0	345	10	828	
5:30 PM	0	0	0	30	0	32	16	362	0	0	303	9	752	
5:45 PM	0	0	0	20	0	36	19	407	0	0	286	13	781	
<b>TOTAL VOLUMES :</b>	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
<b>APPROACH %'s :</b>	#DIV/0!	#DIV/0!	#DIV/0!	56.79%	0.00%	43.21%	3.10%	96.90%	0.00%	0.00%	95.86%	4.14%		

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	2	0

PEAK HR START TIME:	4:45 PM												TOTAL
PEAK HR VOL:	0	0	0	124	0	89	54	495	0	0	345	43	3150
PEAK HR FACTOR:	0.000			0.859			0.922			0.959			0.951

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:  
National Data & Surveying Services

Project ID: 15-5431-021

Day: Tuesday

City: Long Beach

Date: 7/14/2015

NS/EW Streets:	AM												TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	1	2	0	1	2	0	2	1	0	0	1	0	
7:00 AM	2	311	0	0	357	6	35	1	12	0	0	0	724
7:15 AM	2	319	1	0	434	12	42	0	13	0	0	0	823
7:30 AM	4	323	0	0	392	12	62	0	13	0	0	0	806
7:45 AM	4	338	0	1	360	17	45	0	17	2	0	1	785
8:00 AM	4	301	1	1	359	22	37	1	6	0	0	0	732
8:15 AM	3	332	0	0	383	25	25	0	6	0	0	0	774
8:30 AM	3	327	0	4	312	17	51	1	10	1	1	1	728
8:45 AM	8	336	1	3	308	23	24	1	8	0	0	0	712
<b>TOTAL VOLUMES :</b>	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
<b>APPROACH %'s :</b>	1.15%	98.74%	0.11%	0.30%	95.31%	4.40%	78.29%	0.98%	20.73%	50.00%	16.67%	33.33%	6084

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	1	0
1	0	0	0
1	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
1	1	1	0
<b>NB</b>	<b>SB</b>	<b>EB</b>	<b>WB</b>
3	2	2	0

PEAK HR START TIME	7:15 AM												TOTAL
PEAK HR VOL	14	1281	2	22	1545	163	186	16	49	2	0	15	3146
PEAK HR FACTOR	0.948			0.902			0.787			0.250			0.956

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: 15-5431-021

Day: Tuesday

City: Long Beach

Date: 7/14/2015

PM

NS/EW Streets:	Pacific Coast Hwy		Pacific Coast Hwy			1st St			1st St			TOTAL	
	NORTHBOUND		SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 2	ET 1	ER 0	WL 0	WT 1	WR 0	
4:00 PM	9	310	0	1	341	31	36	0	11	1	0	2	742
4:15 PM	7	344	0	0	365	17	34	0	8	0	0	0	775
4:30 PM	7	301	0	1	407	22	32	0	5	0	0	2	777
4:45 PM	20	356	0	2	404	22	41	0	9	0	0	0	854
5:00 PM	15	398	0	0	408	28	33	0	11	0	0	0	893
5:15 PM	13	378	0	1	425	20	28	0	13	1	0	0	879
5:30 PM	12	384	0	0	470	30	51	0	10	0	0	0	957
5:45 PM	15	339	0	0	417	24	30	0	11	0	0	0	836
<b>TOTAL VOLUMES :</b>	NL 98	NT 2810	NR 0	SL 5	ST 3237	SR 194	EL 285	ET 0	ER 78	WL 2	WT 0	WR 4	TOTAL 6713
<b>APPROACH %'s :</b>	3.37%	96.63%	0.00%	0.15%	94.21%	5.65%	78.51%	0.00%	21.49%	33.33%	0.00%	66.67%	

UTURNS			
NB	SB	EB	WB
1	1	0	0
0	0	1	0
1	1	0	0
2	1	1	0
1	0	0	0
0	1	0	0
1	0	0	0
1	0	0	0
7	4	2	0

PEAK HR START TIME:	Pacific Coast Hwy		Pacific Coast Hwy			1st St			1st St			TOTAL
PEAK HR VOL:	60	1516	0	170	100	153	0	0	0	0	0	559
PEAK HR FACTOR:	0.954	0.954	0.954	0.905	0.954	0.905	0.803	0.803	0.803	0.250	0.250	0.535

CONTROL : Signalized



#31

# ITM Peak Hour Summary

Prepared by:

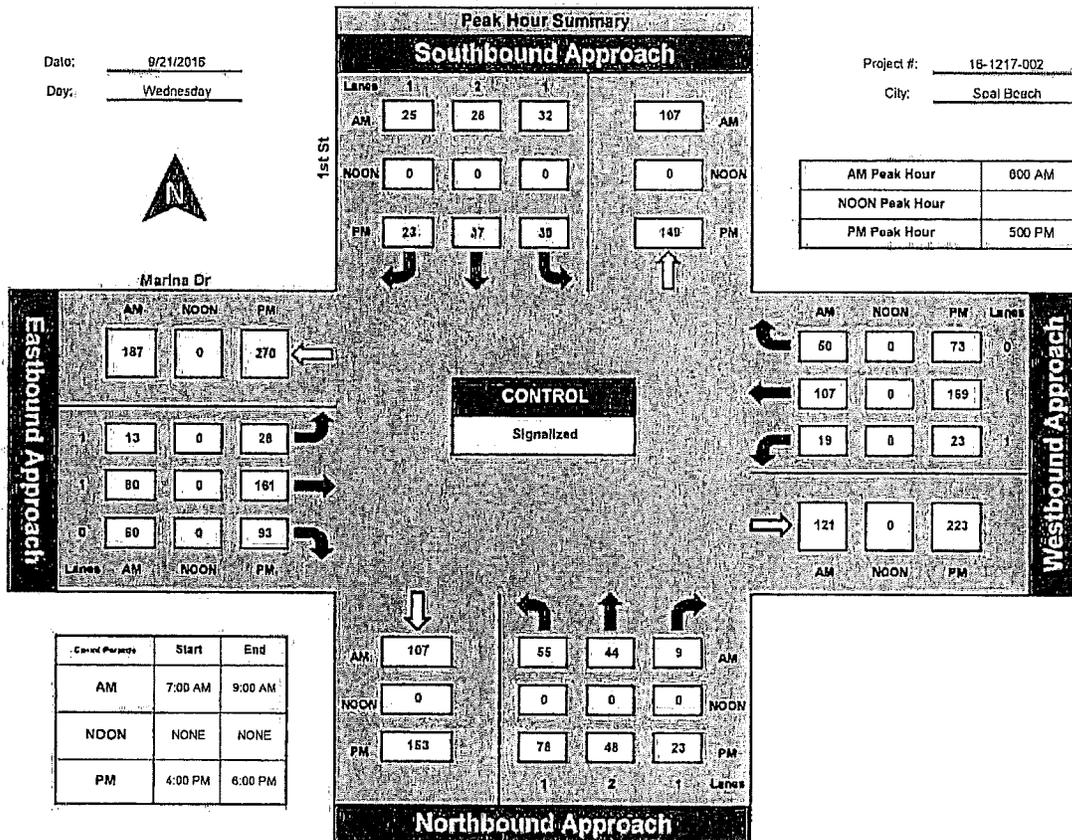


National Data & Surveying Services

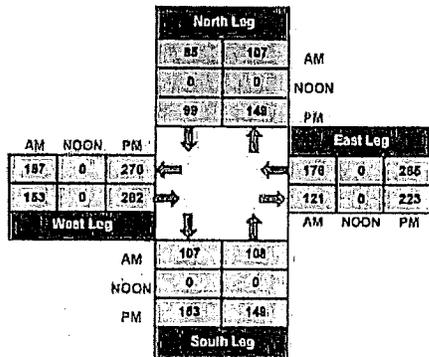
## 1st St and Marina Dr, Seal Beach

Date: 9/21/2016  
Day: Wednesday

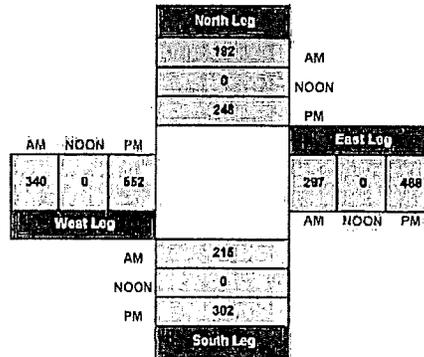
Project #: 15-1217-002  
City: Seal Beach



Total Ins & Outs



Total Volume Per Leg



## APPENDIX C

### EXISTING TRAFFIC CONDITIONS LEVEL OF SERVICE CALCULATION WORKSHEETS

AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Bellflower Boulevard at Atherton Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 81 Level Of Service: C

\*\*\*\*\*

Street Name:	Bellflower Boulevard						Atherton Street					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
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	3	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	65	573	223	467	1161	103	78	650	173	177	341	92
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:	65	573	223	467	1161	103	78	650	173	177	341	92
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	573	223	467	1161	103	78	650	173	177	341	92
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:	65	573	223	467	1161	103	78	650	173	177	341	92
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	573	223	467	1161	103	78	650	173	177	341	92
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:	65	573	223	467	1161	103	78	650	173	177	341	92

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.76	0.24	1.00	2.00	1.00	1.00	1.58	0.42
Final Sat.:	1600	4800	1600	2880	4409	391	1600	3200	1600	1600	2520	680

Capacity Analysis Module:

Vol/Sat:	0.04	0.12	0.14	0.16	0.26	0.26	0.05	0.20	0.11	0.11	0.14	0.14
Crit Moves:			****	****				****		****		

\*\*\*\*\*

AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Pacific Coast Highway at Clark Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.854  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 91 Level Of Service: D

\*\*\*\*\*

Street Name: Pacific Coast Highway Clark Avenue  
 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	1	0	1

Volume Module:

Base Vol:	5	1245	159	87	754	24	7	503	13	76	405	43
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:	5	1245	159	87	754	24	7	503	13	76	405	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	1245	159	87	754	24	7	503	13	76	405	43
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:	5	1245	159	87	754	24	7	503	13	76	405	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	1245	159	87	754	24	7	503	13	76	405	43
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:	5	1245	159	87	754	24	7	503	13	76	405	43

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	1.77	0.23	1.00	1.94	0.06	0.03	1.92	0.05	1.00	1.81	0.19
Final Sat.:	1600	2838	362	1600	3101	99	43	3078	80	1600	2893	307

Capacity Analysis Module:

Vol/Sat:	0.00	0.44	0.44	0.05	0.24	0.24	0.00	0.16	0.16	0.05	0.14	0.14
Crit Moves:	****			****			****			****		

\*\*\*\*\*

AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #3 Pacific Coast Highway at Anaheim Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.763  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 70 Level Of Service: C

\*\*\*\*\*

Street Name: Pacific Coast Highway Anaheim Street  
 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			Ovl			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	1	0	0	1	1	0	1

Volume Module:

Base Vol:	391	1325	49	86	756	20	23	205	554	38	109	56
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:	391	1325	49	86	756	20	23	205	554	38	109	56
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	391	1325	49	86	756	20	23	205	554	38	109	56
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:	391	1325	49	86	756	20	23	205	554	38	109	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	391	1325	49	86	756	20	23	205	554	38	109	56
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:	391	1325	49	86	756	20	23	205	554	38	109	56
OvlAdjVol:	163											

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	1.93	0.07	1.00	1.95	0.05	0.20	1.80	1.00	0.52	1.48	1.00
Final Sat.:	1600	3086	114	1600	3118	82	323	2877	1600	827	2373	1600

Capacity Analysis Module:

Vol/Sat:	0.24	0.43	0.43	0.05	0.24	0.24	0.01	0.07	0.35	0.02	0.05	0.04	
OvlAdjV/S:	0.10												
Crit Moves:	****	****					****	****					

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AM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #4 Studebaker Road at Anaheim Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.777
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: C

\*\*\*\*\*

Street Name: Studebaker Road Anaheim Street
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 2 0 1 1 0 0 1 0 0

Volume Module:

Base Vol: 387 791 12 23 925 179 61 11 142 53 17 22
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: 387 791 12 23 925 179 61 11 142 53 17 22
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 387 791 12 23 925 179 61 11 142 53 17 22
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: 387 791 12 23 925 179 61 11 142 53 17 22
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 387 791 12 23 925 179 61 11 142 53 17 22
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: 387 791 12 23 925 179 61 11 142 53 17 22

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 1.97 0.03 1.00 2.00 1.00 1.00 0.14 1.86 0.58 0.18 0.24
Final Sat.: 1600 3152 48 1600 3200 1600 1600 230 2970 922 296 383

Capacity Analysis Module:

Vol/Sat: 0.24 0.25 0.25 0.01 0.29 0.11 0.04 0.05 0.05 0.03 0.06 0.06
Crit Moves: \*\*\*\*

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #5 Park Avenue at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.953  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 137 Level Of Service: E  
 \*\*\*\*\*

Street Name:	Park Avenue						7th Street					
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			Prot+Permit		
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	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	19	304	343	96	171	72	52	1529	35	112	1140	64
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:	19	304	343	96	171	72	52	1529	35	112	1140	64
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	304	343	96	171	72	52	1529	35	112	1140	64
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:	19	304	343	96	171	72	52	1529	35	112	1140	64
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	304	343	96	171	72	52	1529	35	112	1140	64
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:	19	304	343	96	171	72	52	1529	35	112	1140	64

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	1.00	1.00	1.00	1.00	1.00	1.00	1.96	0.04	1.00	1.89	0.11
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3128	72	1600	3030	170

Capacity Analysis Module:

Vol/Sat:	0.01	0.19	0.21	0.06	0.11	0.05	0.03	0.49	0.49	0.07	0.38	0.38
Crit Moves:			****	****				****		****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #6 Pacific Coast Highway at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.979  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 158 Level Of Service: E

\*\*\*\*\*

Street Name:	Pacific Coast Highway						7th Street					
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			Ovl		
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	2	1	0	0	0	0	2	1	0	0

Volume Module:

Base Vol:	125	1130	3	522	856	4	0	1801	177	0	1210	462
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:	125	1130	3	522	856	4	0	1801	177	0	1210	462
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	1130	3	522	856	4	0	1801	177	0	1210	462
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:	125	1130	3	522	856	4	0	1801	177	0	1210	462
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	1130	3	522	856	4	0	1801	177	0	1210	462
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:	125	1130	3	522	856	4	0	1801	177	0	1210	462
OvlAdjVol:												172

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.99	0.01	2.00	2.99	0.01	0.00	2.73	0.27	0.00	2.00	1.00
Final Sat.:	1600	4787	13	2880	4778	22	0	4370	430	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.08	0.24	0.24	0.18	0.18	0.18	0.00	0.41	0.41	0.00	0.38	0.29
OvlAdjV/S:												0.11
Crit Moves:	****			****			****			****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #7 Bellflower Boulevard at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.917  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 119 Level Of Service: E

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Street Name:	Bellflower Boulevard						7th Street								
	North Bound			South Bound			East Bound			West Bound					
Approach:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Permitted			Protected			Protected			Protected					
Rights:	Ignore			Ovl			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:	0	0	3	0	1	1	2	0	2	1	0	2	1	0	2

Volume Module:

Base Vol:	0	567	143	208	301	161	270	1988	9	29	1560	254
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	567	143	208	301	161	270	1988	9	29	1560	254
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	567	143	208	301	161	270	1988	9	29	1560	254
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	567	0	208	301	161	270	1988	9	29	1560	254
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	567	0	208	301	161	270	1988	9	29	1560	254
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	567	0	208	301	161	270	1988	9	29	1560	254
OvlAdjVol:	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	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	2.00	2.00	1.00	1.00	2.99	0.01	1.00	2.58	0.42
Final Sat.:	0	4800	1600	2880	3200	1600	1600	4778	22	1600	4128	672

Capacity Analysis Module:

Vol/Sat:	0.00	0.12	0.00	0.07	0.09	0.10	0.17	0.42	0.42	0.02	0.38	0.38
OvlAdjV/S:	0.00											
Crit Moves:	****	****				****	****					

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #8 Studebaker Road at SR-22 Westbound Ramps

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.639  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 105 Level Of Service: B

\*\*\*\*\*

Street Name: Studebaker Road SR-22 Westbound Ramps  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ignore		
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:	0	0	1	1	0	2	0	0	0	2	0	0

Volume Module:

Base Vol:	0	771	42	53	1099	0	0	0	0	419	0	456
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	771	42	53	1099	0	0	0	0	419	0	456
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	771	42	53	1099	0	0	0	0	419	0	456
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	771	42	53	1099	0	0	0	0	419	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	771	42	53	1099	0	0	0	0	419	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	771	42	53	1099	0	0	0	0	419	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	0.90	1.00	1.00
Lanes:	0.00	1.90	0.10	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3035	165	1600	3200	0	0	0	0	2880	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.25	0.25	0.03	0.34	0.00	0.00	0.00	0.00	0.15	0.00	0.00
Crit Moves:					****					****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #9 Bellflower Boulevard at Pacific Coast Highway

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.662  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 55 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Bellflower Boulevard						Pacific Coast Highway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			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	2	0	1	1	1	0	2	1	0	3

Volume Module:

Base Vol:	87	409	70	231	117	0	75	930	34	24	1235	304
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:	87	409	70	231	117	0	75	930	34	24	1235	304
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	409	70	231	117	0	75	930	34	24	1235	304
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:	87	409	70	231	117	0	75	930	34	24	1235	304
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	409	70	231	117	0	75	930	34	24	1235	304
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:	87	409	70	231	117	0	75	930	34	24	1235	304

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.89	0.11	1.00	3.00	1.00
Final Sat.:	1600	3200	1600	2880	3200	1600	1600	4631	169	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.13	0.04	0.08	0.04	0.00	0.05	0.20	0.20	0.02	0.26	0.19
Crit Moves:	****			****			****			****		

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AM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

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Intersection #10 Studebaker Road at SR-22 Eastbound Ramps

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.595 0.952
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 74 Level Of Service: A D

\*\*\*\*\*

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Studebaker Road and SR-22 Eastbound Ramps with various traffic parameters.

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, FinalVolume.

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

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

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #11 Pacific Coast Highway at Loynes Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.677  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 57 Level Of Service: B

\*\*\*\*\*

Street Name: Pacific Coast Highway Loynes Drive  
 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	2	1	0	3	1	0	1	1	0	2

Volume Module:

Base Vol:	34	1486	77	44	1127	10	14	260	114	91	136	65
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:	34	1486	77	44	1127	10	14	260	114	91	136	65
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	1486	77	44	1127	10	14	260	114	91	136	65
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:	34	1486	77	44	1127	10	14	260	114	91	136	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	1486	77	44	1127	10	14	260	114	91	136	65
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:	34	1486	77	44	1127	10	14	260	114	91	136	65

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	2.85	0.15	1.00	3.00	1.00	1.00	1.39	0.61	1.00	2.00	1.00
Final Sat.:	1600	4564	236	1600	4800	1600	1600	2225	975	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.33	0.33	0.03	0.23	0.01	0.01	0.12	0.12	0.06	0.04	0.04
Crit Moves:	****			****			****			****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #12 Studebaker Road at Loynes Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.675  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: B

\*\*\*\*\*

Street Name:	Studebaker Road						Loynes Drive					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
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	2	0	0	2	2	0	0	0	0	0

Volume Module:

Base Vol:	63	1322	0	0	1098	243	321	0	90	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:	63	1322	0	0	1098	243	321	0	90	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	1322	0	0	1098	243	321	0	90	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:	63	1322	0	0	1098	243	321	0	90	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1322	0	0	1098	243	321	0	90	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:	63	1322	0	0	1098	243	321	0	90	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	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	2880	0	3200	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.41	0.00	0.00	0.34	0.15	0.11	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****						****					

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 AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)  
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Level Of Service Computation Report

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

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Intersection #13 Livingston Drive at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.624  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 51 Level Of Service: B  
 \*\*\*\*\*

Livingston Drive				2nd Street				
North Bound		South Bound		East Bound		West Bound		
L	T	R	L	T	R	L	T	R
Control: Permitted		Permitted		Split Phase		Split Phase		
Rights: Ovl		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:	0 1 0 0 2	0 0 0 1 0	0 1 0 1 0	1 1 0 0 1				

Volume Module:

Base Vol:	0	92	644	0	64	8	15	155	0	1003	161	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	92	644	0	64	8	15	155	0	1003	161	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	92	644	0	64	8	15	155	0	1003	161	2
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:	0	92	644	0	64	8	15	155	0	1003	161	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	92	644	0	64	8	15	155	0	1003	161	2
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:	0	92	644	0	64	8	15	155	0	1003	161	2
OvlAdjVol:	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:	0.00	1.00	2.00	0.00	0.89	0.11	0.18	1.82	0.00	1.72	0.28	1.00
Final Sat.:	0	1600	3200	0	1422	178	282	2918	0	2757	443	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.06	0.20	0.00	0.05	0.04	0.05	0.05	0.00	0.36	0.36	0.00
OvlAdjV/S:	0.00											
Crit Moves:	****			****			****			****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*  
 Intersection #14 Bay Shore Avenue at 2nd Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.847  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 84 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Bay Shore Avenue						2nd Street					
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			Prot+Permit		
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:	0	0	1! 0	0	0	1! 0	1	0	1 1 0	1	0	2 0 1

Volume Module:

Base Vol:	5	21	293	152	10	10	9	1181	12	96	1227	134
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:	5	21	293	152	10	10	9	1181	12	96	1227	134
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	21	293	152	10	10	9	1181	12	96	1227	134
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:	5	21	293	152	10	10	9	1181	12	96	1227	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	21	293	152	10	10	9	1181	12	96	1227	134
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:	5	21	293	152	10	10	9	1181	12	96	1227	134

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:	0.01	0.07	0.92	0.88	0.06	0.06	1.00	1.98	0.02	1.00	2.00	1.00
Final Sat.:	25	105	1470	1414	93	93	1600	3168	32	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.20	0.20	0.10	0.11	0.11	0.01	0.37	0.37	0.06	0.38	0.08
Crit Moves:	****			****			****			****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #15 Naples Plaza at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 60 Level Of Service: B

\*\*\*\*\*

Street Name:	Naples Plaza						2nd Street									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Split Phase			Split Phase			Permitted			Protected						
Rights:	Include			Include			Ignore			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	0	0	0	0	0	0	2	0	1	1	0	2	0	0

Volume Module:

Base Vol:	18	0	0	0	0	0	0	1618	33	51	1338	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:	18	0	0	0	0	0	0	1618	33	51	1338	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	0	0	0	0	0	0	1618	33	51	1338	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	18	0	0	0	0	0	0	1618	0	51	1338	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	0	0	0	0	0	0	1618	0	51	1338	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	18	0	0	0	0	0	0	1618	0	51	1338	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	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.03	0.42	0.00
Crit Moves:	****							****		****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

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Intersection #16 Marina Drive at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.664  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 60 Level Of Service: B

\*\*\*\*\*

Street Name:	Marina Drive						2nd Street													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Ignore			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	1	1	0	1	1	1	0	0	1	1	0	3	0	1	1	0	2	1	0

Volume Module:

Base Vol:	188	9	83	67	16	50	20	1711	386	50	1398	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	9	83	67	16	50	20	1711	386	50	1398	19
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	188	9	83	67	16	50	20	1711	386	50	1398	19
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	188	9	0	67	16	50	20	1711	386	50	1398	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	9	0	67	16	50	20	1711	386	50	1398	19
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	188	9	0	67	16	50	20	1711	386	50	1398	19

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	1.00	1.61	0.39	1.00	1.00	3.00	1.00	1.00	2.96	0.04
Final Sat.:	2880	1600	1600	2583	617	1600	1600	4800	1600	1600	4736	64

Capacity Analysis Module:

Vol/Sat:	0.07	0.01	0.00	0.03	0.03	0.03	0.01	0.36	0.24	0.03	0.30	0.30
Crit Moves:	****					****		****		****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #17 Pacific Coast Highway at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.933  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 126 Level Of Service: E

\*\*\*\*\*

Street Name: Pacific Coast Highway 2nd Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Ovl			Include			Ovl										
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:	2	0	2	1	0	2	0	3	0	1	2	0	2	1	1	2	0	3	0	1

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Volume Module:

Base Vol:	392	1131	313	242	917	166	227	1231	414	320	927	306	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	392	1131	313	242	917	166	227	1231	414	320	927	306	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	392	1131	313	242	917	166	227	1231	414	320	927	306	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	392	1131	313	242	917	166	227	1231	414	320	927	306	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	392	1131	313	242	917	166	227	1231	414	320	927	306	
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	
Final Volume:	392	1131	313	242	917	166	227	1231	414	320	927	306	
OvlAdjVol:							40						

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	2.35	0.65	2.00	3.00	1.00	2.00	2.99	1.01	2.00	3.00	1.00
Final Sat.:	2880	3760	1040	2880	4800	1600	2880	4789	1611	2880	4800	1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.14	0.30	0.30	0.08	0.19	0.10	0.08	0.26	0.26	0.11	0.19	0.19	
OvlAdjV/S:							0.02						
Crit Moves:	****			****			****			****			

\*\*\*\*\*

AM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*
Intersection #18 Shopkeeper Road at 2nd Street
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.648
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: B
\*\*\*\*\*

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include North Bound, South Bound, East Bound, West Bound movements.

Volume Module: Table with columns for various volume adjustments (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, FinalVolume).

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

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

AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #19 Studebaker Road at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.857

Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 92 Level Of Service: D

\*\*\*\*\*

Street Name:	Studebaker Road						2nd Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
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:	0	0	0	0	0	0	2	0	2	0	0	3

Volume Module:

Base Vol:	0	0	0	532	0	667	934	879	0	0	950	487
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	532	0	667	934	879	0	0	950	487
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	532	0	667	934	879	0	0	950	487
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:	0	0	0	532	0	667	934	879	0	0	950	487
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	532	0	667	934	879	0	0	950	487
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:	0	0	0	532	0	667	934	879	0	0	950	487
OvlAdjVol:						0						191

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	2.00	2.00	2.00	0.00	0.00	3.00	1.00
Final Sat.:	0	0	0	2880	0	3200	2880	3200	0	0	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.21	0.32	0.27	0.00	0.00	0.20	0.30
OvlAdjV/S:						0.00						0.12
Crit Moves:				****			****				****	

\*\*\*\*\*

AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #20 Seal Beach Boulevard at Westminster Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.936

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 122 Level Of Service: E

\*\*\*\*\*

Street Name: Seal Beach Boulevard Westminster Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

	Seal Beach Boulevard			Westminster Avenue			Westminster Avenue			Westminster Avenue		
	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
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	2	1	0	1	2	0	3	0	1	1

Volume Module:

Base Vol:	54	737	217	392	1006	423	206	841	33	256	1213	229
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:	54	737	217	392	1006	423	206	841	33	256	1213	229
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	737	217	392	1006	423	206	841	33	256	1213	229
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:	54	737	217	392	1006	423	206	841	33	256	1213	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	737	217	392	1006	423	206	841	33	256	1213	229
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:	54	737	217	392	1006	423	206	841	33	256	1213	229

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.06	1.00	1.06	1.06	1.00	1.04	1.00
Lanes:	1.00	2.32	0.68	2.00	3.00	1.00	2.00	3.00	1.00	2.00	1.68	0.32
Final Sat.:	1600	3908	1092	3200	5100	1700	3200	5100	1700	3200	2792	508

Capacity Analysis Module:

Vol/Sat:	0.03	0.19	0.20	0.12	0.20	0.25	0.06	0.16	0.02	0.08	0.43	0.45
Crit Moves:		****	****		****	****		****			****	****

\*\*\*\*\*

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↔			↑	↑	↑		↑	↑	
Traffic Vol, veh/h	0	0	0	3	0	56	20	44	0	2	103	57
Future Vol, veh/h	0	0	0	3	0	56	20	44	0	2	103	57
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	3	0	61	22	48	0	2	112	62
Number of Lanes	0	0	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	8.8	9.4	10.6
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	64%	0%	0%	100%	0%	0%	93%
Vol Right, %	0%	36%	100%	0%	0%	100%	0%	7%
Sign Control	Stop							
Traffic Vol by Lane	2	160	3	56	20	44	290	116
LT Vol	2	0	0	56	0	0	290	0
Through Vol	0	103	0	0	20	0	0	108
RT Vol	0	57	3	0	0	44	0	8
Lane Flow Rate	2	174	3	61	22	48	315	126
Geometry Grp	8	8	8	7	7	7	8	8
Degree of Util (X)	0.004	0.272	0.005	0.111	0.037	0.071	0.511	0.185
Departure Headway (Hd)	6.393	5.639	6.024	6.588	6.083	5.377	5.832	5.282
Convergence, Y/N	Yes							
Cap	555	631	598	539	583	659	615	673
Service Time	4.185	3.43	3.724	4.383	3.878	3.171	3.609	3.059
HCM Lane V/C Ratio	0.004	0.276	0.005	0.113	0.038	0.073	0.512	0.187
HCM Control Delay	9.2	10.6	8.8	10.2	9.1	8.6	14.6	9.3
HCM Lane LOS	A	B	A	B	A	A	B	A
HCM 95th-tile Q	0	1.1	0	0.4	0.1	0.2	2.9	0.7

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Lane Configurations		↙	↘	
Traffic Vol, veh/h	0	290	108	8
Future Vol, veh/h	0	290	108	8
Peak Hour Factor	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	315	117	9
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	13.1
HCM LOS	B

Lanes, Volumes, Timings  
 21: Marina Dr & Studebaker Rd

Existing  
 AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↑	↗	↙	↑		↙	↗	
Traffic Volume (vph)	0	0	3	56	20	44	2	103	57	290	108	8
Future Volume (vph)	0	0	3	56	20	44	2	103	57	290	108	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	50		0	50		0	80		0
Storage Lanes	0		0	1		1	1		0	1		0
Taper Length (ft)	25			90			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				0.850		0.947			0.989	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1611	0	1770	1863	1583	1770	1764	0	1770	1842	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	1611	0	1770	1863	1583	1770	1764	0	1770	1842	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			419			717			1135	
Travel Time (s)		6.7			11.4			19.6			31.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	3	61	22	48	2	112	62	315	117	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	61	22	48	2	174	0	315	126	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.7%
Analysis Period (min)	15
	ICU Level of Service A

AM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Pacific Coast Highway at Studebaker Road

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.797
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: C

\*\*\*\*\*

Street Name: Pacific Coast Highway Studebaker Road
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 Split Phase Split Phase
Rights: Include Include Ovl 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 3 0 1 1 0 2 0 1 1 1 0 0 1 0 0 1 0 0

Volume Module:

Base Vol: 35 1848 16 4 1434 89 48 9 251 12 4 4
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 1848 16 4 1434 89 48 9 251 12 4 4
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 35 1848 16 4 1434 89 48 9 251 12 4 4
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 1848 16 4 1434 89 48 9 251 12 4 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 35 1848 16 4 1434 89 48 9 251 12 4 4
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 1848 16 4 1434 89 48 9 251 12 4 4
OvlAdjVol: 216

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 3.00 1.00 1.00 2.00 1.00 1.68 0.32 1.00 0.60 0.20 0.20
Final Sat.: 1600 4800 1600 1600 3200 1600 2695 505 1600 960 320 320

Capacity Analysis Module:

Vol/Sat: 0.02 0.39 0.01 0.00 0.45 0.06 0.02 0.02 0.16 0.01 0.01 0.01
OvlAdjV/S: 0.13
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

**Intersection Level Of Service Report**  
**Intersection 23: Pacific Coast Highway at Marina Drive**

Control Type:	Two-way stop	Delay (sec / veh):	36.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.567

**Intersection Setup**

Name	Pacific Coast Highway		Pacific Coast Highway		Marina Drive	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Pacific Coast Highway		Pacific Coast Highway		Marina Drive	
Base Volume Input [veh/h]	122	1771	1769	13	0	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	1771	1769	13	0	130
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	1.0000	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	487	486	0	0	36
Total Analysis Volume [veh/h]	134	1946	1944	0	0	143
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.45	0.02	0.02	0.00	0.00	0.57
d_M, Delay for Movement [s/veh]	26.63	0.00	0.00	0.00	0.00	36.48
Movement LOS	D	A	A	A		E
95th-Percentile Queue Length [veh]	2.22	0.00	0.00	0.00	0.00	3.19
95th-Percentile Queue Length [ft]	55.42	0.00	0.00	0.00	0.00	79.68
d_A, Approach Delay [s/veh]	1.72		0.00		36.48	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]				2.11		
Intersection LOS				E		

AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*  
 Intersection #24 Pacific Coast Highway at Main Street/Bolsa Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.730  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 54 Level Of Service: C

\*\*\*\*\*

Street Name:	Pacific Coast Highway						Main Street/Bolsa Avenue					
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			Ovl		
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	1	0	1	1	0	1

Volume Module:

Base Vol:	45	1684	8	66	1728	52	58	45	60	13	40	112
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:	45	1684	8	66	1728	52	58	45	60	13	40	112
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1684	8	66	1728	52	58	45	60	13	40	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1684	8	66	1728	52	58	45	60	13	40	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1684	8	66	1728	52	58	45	60	13	40	112
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1684	8	66	1728	52	58	45	60	13	40	112
OvlAdjVol:												42

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.06	1.06	1.00	1.06	1.06	1.00	1.06	1.06
Lanes:	1.00	1.99	0.01	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3285	15	1600	3400	1700	1600	1700	1700	1600	1700	1700

Capacity Analysis Module:

Vol/Sat:	0.03	0.51	0.53	0.04	0.51	0.03	0.04	0.03	0.04	0.01	0.02	0.07
OvlAdjV/S:												0.02

Crit Moves: \*\*\*\* \* 0.04 0.03 0.04 0.01 0.02 0.07

\*\*\*\*\*

AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #25 Seal Beach Boulevard at Pacific Coast Highway

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.885  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 93 Level Of Service: D

\*\*\*\*\*

Street Name:	Seal Beach Boulevard						Pacific Coast Highway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
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	1	0	2	1	0	2

Volume Module:

Base Vol:	11	209	89	480	99	176	145	1789	38	25	1476	488
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:	11	209	89	480	99	176	145	1789	38	25	1476	488
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	209	89	480	99	176	145	1789	38	25	1476	488
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:	11	209	89	480	99	176	145	1789	38	25	1476	488
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	209	89	480	99	176	145	1789	38	25	1476	488
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:	11	209	89	480	99	176	145	1789	38	25	1476	488
OvlAdjVol:												233

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.06	1.00	1.06	1.06	1.00	1.06	1.06
Lanes:	1.00	1.40	0.60	2.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2344	956	3200	1700	1700	1600	3400	1700	1600	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.01	0.09	0.09	0.15	0.06	0.10	0.09	0.53	0.02	0.02	0.43	0.29
OvlAdjV/S:												0.14
Crit Moves:		****	****				****			****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

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Intersection #26 Seal Beach Boulevard at Bolsa Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.548  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 36 Level Of Service: A

\*\*\*\*\*

Street Name: Seal Beach Boulevard Bolsa Avenue

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			Split Phase			Split Phase						
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	2	1	0	0	0	0	1	0	0	1	0	1	0	1

Volume Module:

Base Vol:	18	830	4	12	738	205	274	4	73	9	4	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:	18	830	4	12	738	205	274	4	73	9	4	36
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	830	4	12	738	205	274	4	73	9	4	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:	18	830	4	12	738	205	274	4	73	9	4	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	830	4	12	738	205	274	4	73	9	4	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:	18	830	4	12	738	205	274	4	73	9	4	36

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.06
Lanes:	1.00	2.99	0.01	1.00	2.35	0.65	0.78	0.01	0.21	1.00	1.00	1.00
Final Sat.:	1600	4977	23	1600	3957	1043	1249	18	333	1600	1700	1700

Capacity Analysis Module:

Vol/Sat:	0.01	0.17	0.17	0.01	0.19	0.20	0.22	0.22	0.22	0.01	0.00	0.02
Crit Moves:	****					****			****			****

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*  
 Intersection #27 Santiago Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.674  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 51 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Santiago Avenue						7th Street					
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			Prot+Permit		
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:	0	0	1! 0 0	0	0	1! 0 0	1	0	2 1 0	1	0	1 1 0

Volume Module:

Base Vol:	36	79	59	9	29	13	8	1983	8	40	1329	5
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:	36	79	59	9	29	13	8	1983	8	40	1329	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	79	59	9	29	13	8	1983	8	40	1329	5
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:	36	79	59	9	29	13	8	1983	8	40	1329	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	79	59	9	29	13	8	1983	8	40	1329	5
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
Final Volume:	36	79	59	9	29	13	8	1983	8	40	1329	5

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:	0.21	0.45	0.34	0.18	0.57	0.25	1.00	2.99	0.01	1.00	1.99	0.01
Final Sat.:	331	726	543	282	910	408	1600	4781	19	1600	3188	12

Capacity Analysis Module:

Vol/Sat:	0.02	0.11	0.11	0.01	0.03	0.03	0.01	0.41	0.41	0.03	0.42	0.42
Crit Moves:	****			****			****			****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Pacific Coast Highway at Channel Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.518  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 43 Level Of Service: A

\*\*\*\*\*

Street Name:	Pacific Coast Highway						Channel Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
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:	0	0	3	0	1	1	0	0	3	0	0	1

Volume Module:

Base Vol:	0	1488	90	17	1214	0	0	0	0	71	0	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1488	90	17	1214	0	0	0	0	71	0	75
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1488	90	17	1214	0	0	0	0	71	0	75
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:	0	1488	90	17	1214	0	0	0	0	71	0	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1488	90	17	1214	0	0	0	0	71	0	75
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:	0	1488	90	17	1214	0	0	0	0	71	0	75

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	0.90	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	4800	0	0	0	0	2880	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.31	0.06	0.01	0.25	0.00	0.00	0.00	0.00	0.02	0.00	0.05
Crit Moves:	****			****						****		

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AM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Pacific Coast Highway at 1st Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 50 Level Of Service: B

\*\*\*\*\*

Street Name:	Pacific Coast Highway						1st Street					
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			Split Phase			Split Phase		
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	2	0	0	1	0	0

Volume Module:

Base Vol:	14	1710	2	2	1631	64	188	1	49	2	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:	14	1710	2	2	1631	64	188	1	49	2	0	1
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	1710	2	2	1631	64	188	1	49	2	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:	14	1710	2	2	1631	64	188	1	49	2	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	1710	2	2	1631	64	188	1	49	2	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:	14	1710	2	2	1631	64	188	1	49	2	0	1

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.92	0.08	2.00	0.02	0.98	0.67	0.00	0.33
Final Sat.:	1600	3296	4	1600	3179	121	3200	32	1568	1067	0	533

Capacity Analysis Module:

Vol/Sat:	0.01	0.52	0.53	0.00	0.51	0.53	0.06	0.03	0.03	0.00	0.00	0.00
Crit Moves:	****					****	****					****

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**Intersection Level Of Service Report**  
**Intersection 36: Studebaker Road/SR-22 WB Ramps at College Park Drive**

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	SR-22 WB Ramps		Studebaker Road		College Park Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	┆		┆┆		┆┆	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	SR-22 WB Ramps		Studebaker Road		College Park Drive	
Base Volume Input [veh/h]	736	28	29	73	10	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	736	28	29	73	10	140
Peak Hour Factor	0.8580	0.8580	0.8580	0.8580	0.8580	0.8580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
Total 15-Minute Volume [veh/h]	214	8	8	21	3	0
Total Analysis Volume [veh/h]	858	33	34	85	12	0
Pedestrian Volume [ped/h]	0	0	0	0	0	0

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.04	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	9.95	0.00	15.23	15.32
Movement LOS	A	A	A	A	C	C
95th-Percentile Queue Length [veh]	0.00	0.00	0.14	0.00	0.10	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	3.50	0.00	2.55	0.00
d_A, Approach Delay [s/veh]	0.00		2.84		15.23	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.51					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 37: 1st Street at Marina Drive**

Control Type:	All-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes		

**Intersection Setup**

Name	1st Street			1st Street			Marina Drive			Marina Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇌⇌⇌			⇌⇌⇌			⇌⇌			⇌⇌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	1st Street			1st Street			Marina Drive			Marina Drive		
Base Volume Input [veh/h]	54	44	9	32	28	25	13	80	60	19	107	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	44	9	32	28	25	13	80	60	19	107	60
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	12	2	8	7	7	3	21	16	5	28	16
Total Analysis Volume [veh/h]	57	46	9	34	29	26	14	84	63	20	113	63
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.33	0.12	0.12	0.04	0.19	0.07	0.07	0.12	0.07	0.79	0.10	0.99
95th-Percentile Queue Length [ft]	8.33	2.90	2.90	0.97	4.81	1.82	1.82	2.91	1.77	19.74	2.52	24.73
Approach Delay [s/veh]	9.20				8.84				9.17		9.46	
Approach LOS	A				A				A		A	
Intersection Delay [s/veh]	9.23											
Intersection LOS	A											

PM Existing Traffic Conditions  
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 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Bellflower Boulevard at Atherton Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.851  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 95 Level Of Service: D

\*\*\*\*\*

Street Name:	Bellflower Boulevard						Atherton Street					
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			Protected			Protected		
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	3	0	1		2	0	2	1	0	1

Volume Module:

Base Vol:	156	1017	207	169	842	164	164	477	149	205	591	246
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:	156	1017	207	169	842	164	164	477	149	205	591	246
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	156	1017	207	169	842	164	164	477	149	205	591	246
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:	156	1017	207	169	842	164	164	477	149	205	591	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	1017	207	169	842	164	164	477	149	205	591	246
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:	156	1017	207	169	842	164	164	477	149	205	591	246

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.51	0.49	1.00	2.00	1.00	1.00	1.41	0.59
Final Sat.:	1600	4800	1600	2880	4017	783	1600	3200	1600	1600	2259	941

Capacity Analysis Module:

Vol/Sat:	0.10	0.21	0.13	0.06	0.21	0.21	0.10	0.15	0.09	0.13	0.26	0.26
Crit Moves:	****				****		****				****	

\*\*\*\*\*

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Pacific Coast Highway at Clark Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 81 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Pacific Coast Highway						Clark Avenue					
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	1	0	1

Volume Module:

Base Vol:	21	830	137	112	929	12	33	616	42	128	426	113
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:	21	830	137	112	929	12	33	616	42	128	426	113
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	830	137	112	929	12	33	616	42	128	426	113
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:	21	830	137	112	929	12	33	616	42	128	426	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	830	137	112	929	12	33	616	42	128	426	113
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:	21	830	137	112	929	12	33	616	42	128	426	113

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	1.72	0.28	1.00	1.97	0.03	0.10	1.78	0.12	1.00	1.58	0.42
Final Sat.:	1600	2747	453	1600	3159	41	153	2853	195	1600	2529	671

Capacity Analysis Module:

Vol/Sat:	0.01	0.30	0.30	0.07	0.29	0.29	0.02	0.22	0.22	0.08	0.17	0.17
Crit Moves:	****			****			****			****		

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 PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)  
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Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #3 Pacific Coast Highway at Anaheim Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.845  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 88 Level Of Service: D

\*\*\*\*\*

Street Name: Pacific Coast Highway Anaheim Street  
 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			Ovl			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

Volume Module:

Base Vol:	388	859	64	53	1042	26	56	184	504	49	218	84
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:	388	859	64	53	1042	26	56	184	504	49	218	84
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	388	859	64	53	1042	26	56	184	504	49	218	84
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:	388	859	64	53	1042	26	56	184	504	49	218	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	388	859	64	53	1042	26	56	184	504	49	218	84
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:	388	859	64	53	1042	26	56	184	504	49	218	84
OvlAdjVol:									116			

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	1.86	0.14	1.00	1.95	0.05	0.47	1.53	1.00	0.37	1.63	1.00
Final Sat.:	1600	2978	222	1600	3122	78	747	2453	1600	587	2613	1600

Capacity Analysis Module:

Vol/Sat:	0.24	0.29	0.29	0.03	0.33	0.33	0.04	0.08	0.32	0.03	0.08	0.05
OvlAdjV/S:									0.07			
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Existing Traffic Conditions  
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 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #4 Studebaker Road at Anaheim Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.706  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 61 Level Of Service: C

\*\*\*\*\*

Street Name:	Studebaker Road						Anaheim Street					
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	1	0	1	1	0	1

Volume Module:

Base Vol:	222	1139	18	46	713	43	98	52	379	50	16	35
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:	222	1139	18	46	713	43	98	52	379	50	16	35
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	222	1139	18	46	713	43	98	52	379	50	16	35
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:	222	1139	18	46	713	43	98	52	379	50	16	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	1139	18	46	713	43	98	52	379	50	16	35
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:	222	1139	18	46	713	43	98	52	379	50	16	35

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	1.97	0.03	1.00	2.00	1.00	1.00	0.24	1.76	0.49	0.16	0.35
Final Sat.:	1600	3150	50	1600	3200	1600	1600	386	2814	792	253	554

Capacity Analysis Module:

Vol/Sat:	0.14	0.36	0.36	0.03	0.22	0.03	0.06	0.13	0.13	0.03	0.06	0.06
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #5 Park Avenue at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.883  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 96 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Park Avenue						7th Street					
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			Prot+Permit		
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	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	32	275	242	76	292	29	36	1354	58	164	1410	83
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:	32	275	242	76	292	29	36	1354	58	164	1410	83
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	275	242	76	292	29	36	1354	58	164	1410	83
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:	32	275	242	76	292	29	36	1354	58	164	1410	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	275	242	76	292	29	36	1354	58	164	1410	83
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:	32	275	242	76	292	29	36	1354	58	164	1410	83

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	1.00	1.00	1.00	1.00	1.00	1.00	1.92	0.08	1.00	1.89	0.11
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3069	131	1600	3022	178

Capacity Analysis Module:

Vol/Sat:	0.02	0.17	0.15	0.05	0.18	0.02	0.02	0.44	0.44	0.10	0.47	0.47
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #6 Pacific Coast Highway at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.980
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 159 Level Of Service: E
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Pacific Coast Highway and 7th Street with various movement details.

Volume Module: Table showing 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, FinalVolume, OvlAdjVol.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table showing Vol/Sat, OvlAdjV/S, Crit Moves.

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #7 Bellflower Boulevard at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.847  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 94 Level Of Service: D

\*\*\*\*\*

Street Name:	Bellflower Boulevard						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Protected			Protected		
Rights:	Ignore			Ovl			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:	0	0	3	0	1	1	1	0	2	1	0	2

Volume Module:

Base Vol:	0	516	128	322	609	376	149	1742	17	41	1550	151
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	516	128	322	609	376	149	1742	17	41	1550	151
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	516	128	322	609	376	149	1742	17	41	1550	151
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	516	0	322	609	376	149	1742	17	41	1550	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	516	0	322	609	376	149	1742	17	41	1550	151
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	516	0	322	609	376	149	1742	17	41	1550	151
OvlAdjVol:	227											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	2.00	2.00	1.00	1.00	2.97	0.03	1.00	2.73	0.27
Final Sat.:	0	4800	1600	2880	3200	1600	1600	4754	46	1600	4374	426

Capacity Analysis Module:

Vol/Sat:	0.00	0.11	0.00	0.11	0.19	0.24	0.09	0.37	0.37	0.03	0.35	0.35
OvlAdjV/S:	0.14											
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

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2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #8 Studebaker Road at SR-22 Westbound Ramps

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.908
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 112 Level Of Service: E

\*\*\*\*\*

Street Name: Studebaker Road SR-22 Westbound Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Split Phase Split Phase
Rights: Include Include Include Ignore
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: 0 0 1 1 0 1 0 2 0 0 0 0 0 0 0 0 1

Volume Module:

Base Vol: 0 1061 53 41 1107 0 0 0 0 1107 0 255
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1061 53 41 1107 0 0 0 0 1107 0 255
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1061 53 41 1107 0 0 0 0 1107 0 255
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 1061 53 41 1107 0 0 0 0 1107 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1061 53 41 1107 0 0 0 0 1107 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 1061 53 41 1107 0 0 0 0 1107 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 0.90 1.00 1.00
Lanes: 0.00 1.90 0.10 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3048 152 1600 3200 0 0 0 0 2880 0 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.35 0.35 0.03 0.35 0.00 0.00 0.00 0.00 0.38 0.00 0.00
Crit Moves: \*\*\*\*

\*\*\*\*\*

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*
Intersection #9 Bellflower Boulevard at Pacific Coast Highway
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.668
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Bellflower Boulevard and Pacific Coast Highway with various traffic movements and signal settings.

Volume Module: Table showing traffic volume data including 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 data including Sat/Lane, Adjustment, Lanes, and Final Sat. for different approaches.

Capacity Analysis Module: Table showing capacity analysis data including Vol/Sat, Crit Moves, and other performance metrics.

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 PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)  
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Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #10 Studebaker Road at SR-22 Eastbound Ramps

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): ~~0.787~~ 0.931  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: ~~E~~ E  
 \*\*\*\*\*

Street Name:	Studebaker Road						SR-22 Eastbound Ramps										
Approach:	North Bound			South Bound			East Bound			West Bound							
Movement:	L	T	R	L	T	R	L	T	R	L	T	R					
Control:	Permitted			Protected			Split Phase			Split Phase							
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:	0	0	2	0	1	1	0	2	0	0	0	0	1	0	1	0	0

Volume Module:

Base Vol:	0	1011	912	268	1902	0	0	0	0	22	0	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1011	912	268	1902	0	0	0	0	22	0	68
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1011	912	268	1902	0	0	0	0	22	0	68
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:	0	1011	912	268	1902	0	0	0	0	22	0	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1011	912	268	1902	0	0	0	0	22	0	68
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:	0	1011	912	268	1902	0	0	0	0	22	0	68

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:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3200	1600	1600	3200	0	0	0	0	1600	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.32	0.57	0.17	0.59	0.00	0.00	0.00	0.00	0.01	0.00	0.04
Crit Moves:			***	***								****

\*\*\*\*\*

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 PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)  
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Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #11 Pacific Coast Highway at Loynes Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.809  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 79 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Pacific Coast Highway						Loynes Drive					
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	2	1	0	3	1	0	1	1	0	2

Volume Module:

Base Vol:	161	1256	161	72	1353	32	29	334	159	196	513	97
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:	161	1256	161	72	1353	32	29	334	159	196	513	97
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	161	1256	161	72	1353	32	29	334	159	196	513	97
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:	161	1256	161	72	1353	32	29	334	159	196	513	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	1256	161	72	1353	32	29	334	159	196	513	97
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:	161	1256	161	72	1353	32	29	334	159	196	513	97

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	2.66	0.34	1.00	3.00	1.00	1.00	1.35	0.65	1.00	2.00	1.00
Final Sat.:	1600	4255	545	1600	4800	1600	1600	2168	1032	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.30	0.30	0.05	0.28	0.02	0.02	0.15	0.15	0.12	0.16	0.06
Crit Moves:	****				****			****		****		

\*\*\*\*\*

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #12 Studebaker Road at Loynes Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.791  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 75 Level Of Service: C

\*\*\*\*\*

Street Name:	Studebaker Road						Loynes Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
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	2	0	0	2	2	0	0	0	0	0

Volume Module:

Base Vol:	141	1600	0	0	1297	679	369	0	95	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:	141	1600	0	0	1297	679	369	0	95	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	141	1600	0	0	1297	679	369	0	95	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:	141	1600	0	0	1297	679	369	0	95	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	1600	0	0	1297	679	369	0	95	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:	141	1600	0	0	1297	679	369	0	95	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	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	2880	0	3200	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.09	0.50	0.00	0.00	0.41	0.42	0.13	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****					****	****					

\*\*\*\*\*

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #13 Livingston Drive at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.583
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: A

\*\*\*\*\*

Street Name: Livingston Drive 2nd Street
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 Split Phase Split Phase
Rights: Ovl 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: 0 1 0 0 2 0 0 0 1 0 0 1 0 1 0 1 0 1

Volume Module:

Base Vol: 0 153 1010 0 104 35 34 172 0 684 188 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 153 1010 0 104 35 34 172 0 684 188 14
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 153 1010 0 104 35 34 172 0 684 188 14
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: 0 153 1010 0 104 35 34 172 0 684 188 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 153 1010 0 104 35 34 172 0 684 188 14
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: 0 153 1010 0 104 35 34 172 0 684 188 14
OvlAdjVol: 138

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: 0.00 1.00 2.00 0.00 0.75 0.25 0.33 1.67 0.00 1.57 0.43 1.00
Final Sat.: 0 1600 3200 0 1197 403 528 2672 0 2510 690 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.10 0.32 0.00 0.09 0.09 0.06 0.06 0.00 0.27 0.27 0.01
OvlAdjV/S: 0.04
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #14 Bay Shore Avenue at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 1.009
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

\*\*\*\*\*

Street Name: Bay Shore Avenue 2nd Street
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 Prot+Permit
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: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 0 1 0 1

Volume Module:
Base Vol: 9 27 292 181 29 13 12 1300 28 250 1155 254
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: 9 27 292 181 29 13 12 1300 28 250 1155 254
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 9 27 292 181 29 13 12 1300 28 250 1155 254
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: 9 27 292 181 29 13 12 1300 28 250 1155 254
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 9 27 292 181 29 13 12 1300 28 250 1155 254
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: 9 27 292 181 29 13 12 1300 28 250 1155 254

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: 0.03 0.08 0.89 0.81 0.13 0.06 1.00 1.96 0.04 1.00 2.00 1.00
Final Sat.: 44 132 1424 1299 208 93 1600 3133 67 1600 3200 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.20 0.21 0.11 0.14 0.14 0.01 0.42 0.41 0.16 0.36 0.16
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #15 Naples Plaza at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.746  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 67 Level Of Service: C

\*\*\*\*\*

Street Name: Naples Plaza 2nd Street  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Ignore			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	0	0	0	0	0	0	2	0	1	1

Volume Module:

Base Vol:	36	0	21	0	0	0	0	1681	72	77	1668	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:	36	0	21	0	0	0	0	1681	72	77	1668	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	0	21	0	0	0	0	1681	72	77	1668	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	36	0	21	0	0	0	0	1681	0	77	1668	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	0	21	0	0	0	0	1681	0	77	1668	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	36	0	21	0	0	0	0	1681	0	77	1668	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	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.53	0.00	0.05	0.52	0.00
Crit Moves:	****							****		****		

\*\*\*\*\*

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #16 Marina Drive at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.792
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 80 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name (Marina Drive, 2nd Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: 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, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves.

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #17 Pacific Coast Highway at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.876  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 103 Level Of Service: D

\*\*\*\*\*

Street Name:	Pacific Coast Highway						2nd Street								
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			Protected			Protected					
Rights:	Include			Ovl			Include			Ovl					
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:	2	0	2	1	0	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	420	929	306	267	991	415	298	1095	297	332	1195	336	
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:	420	929	306	267	991	415	298	1095	297	332	1195	336	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	420	929	306	267	991	415	298	1095	297	332	1195	336	
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:	420	929	306	267	991	415	298	1095	297	332	1195	336	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	420	929	306	267	991	415	298	1095	297	332	1195	336	
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:	420	929	306	267	991	415	298	1095	297	332	1195	336	
OvlAdjVol:							249						

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00
Lanes:	2.00	2.26	0.74	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2880	3611	1189	2880	4800	1600	2880	4800	1600	2880	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.15	0.26	0.26	0.09	0.21	0.26	0.10	0.23	0.19	0.12	0.25	0.21	
OvlAdjV/S:							0.16						
Crit Moves:	****					****	****			****			

\*\*\*\*\*

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #18 Shopkeeper Road at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.881
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 101 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Shopkeeper Road and 2nd Street with various traffic parameters.

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, FinalVolume.

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

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

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #19 Studebaker Road at 2nd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.947  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 133 Level Of Service: E

\*\*\*\*\*

Street Name:	Studebaker Road						2nd Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Ovl		
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:	0	0	0	0	0	0	2	0	2	0	0	1

Volume Module:

Base Vol:	0	0	0	424	0	932	1137	793	0	0	1026	644
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	424	0	932	1137	793	0	0	1026	644
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	424	0	932	1137	793	0	0	1026	644
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:	0	0	0	424	0	932	1137	793	0	0	1026	644
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	424	0	932	1137	793	0	0	1026	644
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:	0	0	0	424	0	932	1137	793	0	0	1026	644
OvlAdjVol:							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	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	2.00	2.00	2.00	0.00	0.00	3.00	1.00
Final Sat.:	0	0	0	2880	0	3200	2880	3200	0	0	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.29	0.39	0.25	0.00	0.00	0.21	0.40
OvlAdjV/S:							0.00					
Crit Moves:							****					

\*\*\*\*\*

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #20 Seal Beach Boulevard at Westminster Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 117 Level Of Service: E

\*\*\*\*\*

Table with 4 columns: Seal Beach Boulevard, Westminster Avenue, North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with 12 columns and 15 rows including 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, FinalVolume.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 3 rows including Vol/Sat, Crit Moves.

\*\*\*\*\*

Intersection	
Intersection Delay, s/veh	15.8
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↕			↖	↗	↘		↖	↗	
Traffic Vol, veh/h	0	5	6	3	0	138	12	127	0	4	177	81
Future Vol, veh/h	0	5	6	3	0	138	12	127	0	4	177	81
Peak Hour Factor	0.95	0.96	0.96	0.96	0.95	0.96	0.96	0.96	0.95	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	6	3	0	144	13	132	0	4	184	84
Number of Lanes	0	0	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	11.1	11.9	16.1
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	36%	100%	0%	0%	100%	0%
Vol Thru, %	0%	69%	43%	0%	100%	0%	0%	98%
Vol Right, %	0%	31%	21%	0%	0%	100%	0%	2%
Sign Control	Stop							
Traffic Vol by Lane	4	258	14	138	12	127	320	208
LT Vol	4	0	5	138	0	0	320	0
Through Vol	0	177	6	0	12	0	0	204
RT Vol	0	81	3	0	0	127	0	4
Lane Flow Rate	4	269	15	144	12	132	333	217
Geometry Grp	8	8	8	7	7	7	8	8
Degree of Util (X)	0.009	0.502	0.033	0.294	0.024	0.226	0.636	0.382
Departure Headway (Hd)	7.453	6.722	8.15	7.363	6.855	6.143	6.866	6.347
Convergence, Y/N	Yes							
Cap	478	532	442	486	520	582	523	566
Service Time	5.231	4.5	5.85	5.132	4.624	3.912	4.632	4.113
HCM Lane V/C Ratio	0.008	0.506	0.034	0.296	0.023	0.227	0.637	0.383
HCM Control Delay	10.3	16.2	11.1	13.2	9.8	10.7	21	13
HCM Lane LOS	B	C	B	B	A	B	C	B
HCM 95th-tile Q	0	2.8	0.1	1.2	0.1	0.9	4.4	1.8

<b>Intersection</b>				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Lane Configurations		↖	↗	
Traffic Vol, veh/h	0	320	204	4
Future Vol, veh/h	0	320	204	4
Peak Hour Factor	0.95	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	333	213	4
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	17.8
HCM LOS	C

Lanes, Volumes, Timings  
 21: Marina Dr & Studebaker Rd

Existing  
 PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↵	↑	↗	↵	↗		↵	↗	
Traffic Volume (vph)	5	6	3	138	12	127	4	177	81	320	204	4
Future Volume (vph)	5	6	3	138	12	127	4	177	81	320	204	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	50		0	50		0	80		0
Storage Lanes	0		0	1		1	1		0	1		0
Taper Length (ft)	25			90			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971				0.850		0.953			0.997	
Flt Protected		0.982		0.950			0.950			0.950		
Satd. Flow (prot)	0	1776	0	1770	1863	1583	1770	1775	0	1770	1857	0
Flt Permitted		0.982		0.950			0.950			0.950		
Satd. Flow (perm)	0	1776	0	1770	1863	1583	1770	1775	0	1770	1857	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			419			717			1135	
Travel Time (s)		6.7			11.4			19.6			31.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	6	3	144	13	132	4	184	84	333	213	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	144	13	132	4	268	0	333	217	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.3%
ICU Level of Service	B
Analysis Period (min)	15

PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #22 Pacific Coast Highway at Studebaker Road

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.840
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 92 Level Of Service: D
\*\*\*\*\*

Table with 4 columns: Pacific Coast Highway, Studebaker Road, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with 12 columns for traffic volume and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 4 rows for Vol/Sat, OvlAdjV/S, Crit Moves.

**Intersection Level Of Service Report**  
**Intersection 23: Pacific Coast Highway at Marina Drive**

Control Type:	Two-way stop	Delay (sec / veh):	19.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.342

**Intersection Setup**

Name	Pacific Coast Highway		Pacific Coast Highway		Marina Drive	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	⇐		⇐		⇐	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

**Volumes**

Name	Pacific Coast Highway		Pacific Coast Highway		Marina Drive	
Base Volume Input [veh/h]	214	1427	1423	26	0	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	214	1427	1423	26	0	122
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	1.0000	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	365	364	0	0	31
Total Analysis Volume [veh/h]	219	1461	1456	0	0	125
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.48	0.01	0.01	0.00	0.00	0.34
d_M, Delay for Movement [s/veh]	19.70	0.00	0.00	0.00	0.00	19.86
Movement LOS	C	A	A	A		C
95th-Percentile Queue Length [veh]	2.51	0.00	0.00	0.00	0.00	1.48
95th-Percentile Queue Length [ft]	62.78	0.00	0.00	0.00	0.00	37.09
d_A, Approach Delay [s/veh]	2.57		0.00		19.86	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.08					
Intersection LOS	C					

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 (City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #24 Pacific Coast Highway at Main Street/Bolsa Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.702  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 50 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Pacific Coast Highway						Main Street/Bolsa Avenue						
	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			Ovl			
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	1	0	1	0	1	0	1

Volume Module:

Base Vol:	78	1421	14	112	1414	83	74	53	68	19	63	170
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:	78	1421	14	112	1414	83	74	53	68	19	63	170
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	1421	14	112	1414	83	74	53	68	19	63	170
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	1421	14	112	1414	83	74	53	68	19	63	170
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	1421	14	112	1414	83	74	53	68	19	63	170
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	1421	14	112	1414	83	74	53	68	19	63	170
OvlAdjVol:												51

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.06	1.06	1.00	1.06	1.06	1.00	1.06	1.06
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3269	31	1600	3400	1700	1600	1700	1700	1600	1700	1700

Capacity Analysis Module:

Vol/Sat:	0.05	0.43	0.45	0.07	0.42	0.05	0.05	0.03	0.04	0.01	0.04	0.10
OvlAdjV/S:												0.03
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #25 Seal Beach Boulevard at Pacific Coast Highway

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.811  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 69 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Seal Beach Boulevard						Pacific Coast Highway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
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	1	0	2	1	0	2

Volume Module:

Base Vol:	19	146	69	469	190	261	202	1185	45	73	1237	462
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:	19	146	69	469	190	261	202	1185	45	73	1237	462
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	146	69	469	190	261	202	1185	45	73	1237	462
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:	19	146	69	469	190	261	202	1185	45	73	1237	462
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	146	69	469	190	261	202	1185	45	73	1237	462
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:	19	146	69	469	190	261	202	1185	45	73	1237	462
OvlAdjVol:												201

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.06	1.00	1.06	1.06	1.00	1.06	1.06
Lanes:	1.00	1.36	0.64	2.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2273	1027	3200	1700	1700	1600	3400	1700	1600	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.01	0.06	0.07	0.15	0.11	0.15	0.13	0.35	0.03	0.05	0.36	0.27
OvlAdjV/S:												0.12
Crit Moves:		****			****	****				****		

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PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

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Intersection #26 Seal Beach Boulevard at Bolsa Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.492  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 33 Level Of Service: A

\*\*\*\*\*

	Seal Beach Boulevard						Bolsa Avenue					
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			Split Phase			Split Phase		
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	2	1	0	2	0	0	1	0	0	1

Volume Module:

Base Vol:	7	740	16	40	901	290	163	10	29	6	8	22
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:	7	740	16	40	901	290	163	10	29	6	8	22
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	740	16	40	901	290	163	10	29	6	8	22
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:	7	740	16	40	901	290	163	10	29	6	8	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	740	16	40	901	290	163	10	29	6	8	22
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:	7	740	16	40	901	290	163	10	29	6	8	22

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.06	1.06
Lanes:	1.00	2.94	0.06	1.00	2.27	0.73	0.81	0.05	0.14	1.00	1.00	1.00
Final Sat.:	1600	4898	102	1600	3831	1169	1291	79	230	1600	1700	1700

Capacity Analysis Module:

Vol/Sat:	0.00	0.15	0.16	0.03	0.24	0.25	0.13	0.13	0.13	0.00	0.00	0.01
Crit Moves:	****					****		****				****

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PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #27 Santiago Avenue at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.729
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name (Santiago Avenue, 7th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, 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, FinalVolume.

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

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

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PM Existing Traffic Conditions
2-16-3779 2nd & PCH Project, Long Beach
(City of Long Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #28 Pacific Coast Highway at Channel Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.524
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: A

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Pacific Coast Highway and Channel Drive with various traffic signal settings.

Volume Module table showing 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, Final Volume across different approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, Final Sat. for different approaches.

Capacity Analysis Module table showing Vol/Sat, Crit Moves for different approaches.

PM Existing Traffic Conditions  
 2-16-3779 2nd & PCH Project, Long Beach  
 (City of Seal Beach)

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #29 Pacific Coast Highway at 1st Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.758  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 58 Level Of Service: C

\*\*\*\*\*

Street Name:	Pacific Coast Highway						1st Street					
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			Split Phase			Split Phase		
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	2	0	1	1	0	0

Volume Module:

Base Vol:	61	1531	0	3	1724	101	155	0	43	1	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:	61	1531	0	3	1724	101	155	0	43	1	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	1531	0	3	1724	101	155	0	43	1	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:	61	1531	0	3	1724	101	155	0	43	1	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	1531	0	3	1724	101	155	0	43	1	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:	61	1531	0	3	1724	101	155	0	43	1	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.06	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.06	1.06
Lanes:	1.00	2.00	0.00	1.00	1.89	0.11	2.00	0.00	1.00	1.00	0.00	0.00
Final Sat.:	1600	3300	0	1600	3123	177	3200	0	1600	1600	0	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.46	0.00	0.00	0.55	0.57	0.05	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****					****	****			****		

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**Intersection Level Of Service Report**

**Intersection 36: Studebaker Road/SR-22 WB Ramps at College Park Drive**

Control Type:	Two-way stop	Delay (sec / veh):	28.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

**Intersection Setup**

Name	SR-22 WB Ramps		Studebaker Road		College Park Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	┆		┆┆		┆┆	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	SR-22 WB Ramps		Studebaker Road		College Park Drive	
Base Volume Input [veh/h]	1400	81	58	33	4	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1400	81	58	33	4	100
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
Total 15-Minute Volume [veh/h]	359	21	15	8	1	0
Total Analysis Volume [veh/h]	1437	83	60	34	4	0
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.14	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	14.49	0.00	26.69	28.31
Movement LOS	A	A	B	A	D	D
95th-Percentile Queue Length [veh]	0.00	0.00	0.47	0.00	0.07	0.00
95th-Percentile Queue Length [ft]	0.00	0.00	11.76	0.00	1.80	0.00
d_A, Approach Delay [s/veh]	0.00		9.25		26.69	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.60					
Intersection LOS	D					

**Intersection Level Of Service Report**  
**Intersection 37: 1st Street at Marina Drive**

Control Type:	All-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

**Intersection Setup**

Name	1st Street			1st Street			Marina Drive			Marina Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇌⇌⇌			⇌⇌⇌			⇌⇌			⇌⇌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	1st Street			1st Street			Marina Drive			Marina Drive		
Base Volume Input [veh/h]	78	48	23	30	37	23	28	161	93	23	169	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	48	23	30	37	23	28	161	93	23	169	73
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	13	6	8	10	6	7	42	24	6	44	19
Total Analysis Volume [veh/h]	82	51	24	32	39	24	29	169	98	24	178	77
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.58	0.15	0.15	0.12	0.21	0.11	0.11	0.13	0.16	2.03	0.13	1.92
95th-Percentile Queue Length [ft]	14.46	3.70	3.70	3.08	5.19	2.86	2.86	3.16	4.01	50.67	3.30	48.02
Approach Delay [s/veh]	10.38				9.83				11.87		11.82	
Approach LOS	B				A				B		B	
Intersection Delay [s/veh]	11.33											
Intersection LOS	B											