Appendix I: Transportation Impact Analysis

Appendices

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DRAFT

Midtown Specific Plan

Transportation Impact Analysis

Prepared for:

October 2015

OC12-0193

FEHR PEERS

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1. EXECUTIVE SUMMARY

Fehr & Peers has completed a transportation impact analysis for the proposed Midtown Specific Plan in Long Beach, California. The proposed project is located just north of Downtown, bound by Anaheim Street, Wardlow Road, Pacific Avenue, and Atlantic Avenue. The project consists of four unique development districts (Transit Node, Corridor, Medical and Open Space). Also, the project includes closing access points to Long Beach Boulevard with the installation of streetlet parks (parklets).

As part of the transportation impact study, and consistent with Los Angeles County Congestion Management Program (CMP) requirements, the following scenarios were analyzed:

- Existing (2014) Conditions – Consists of existing counts collected at study intersections.
- Existing (2014) Plus Project Conditions – Existing traffic volumes plus project traffic.
- Cumulative Year (2035) No Project Conditions – Annual growth rate factor applied through Year 2035.
- Cumulative Year (2035) Plus Project Conditions – Cumulative Year traffic volumes plus project traffic.

FINDINGS

The proposed project results in impacts to study intersections as identified in Table ES-1. Mitigation measures have been recommended for identified impacts.

TABLE ES-1 INTERSECTION IMPACTS SUMMARY MATRIX

Intersection	Scenario(s) Where Impact Occurs	Possible Mitigation?
1. Long Beach Blvd & Spring St	2035 (PM)	Yes
2. Pacific Ave & Willow St	2035 (PM)	Yes
4. Atlantic Ave & Willow St	2035 (PM)	Yes
13. Atlantic Ave & Spring St	2014 (PM) 2035 (AM) 2035 (PM)	Yes Yes Yes
15. Atlantic Ave & 27th St	2035 (AM) 2035 (PM)	Yes Yes

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INTERSECTION IMPACT LOCATIONS

FIGURE ES-1

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2. INTRODUCTION

PROJECT DESCRIPTION

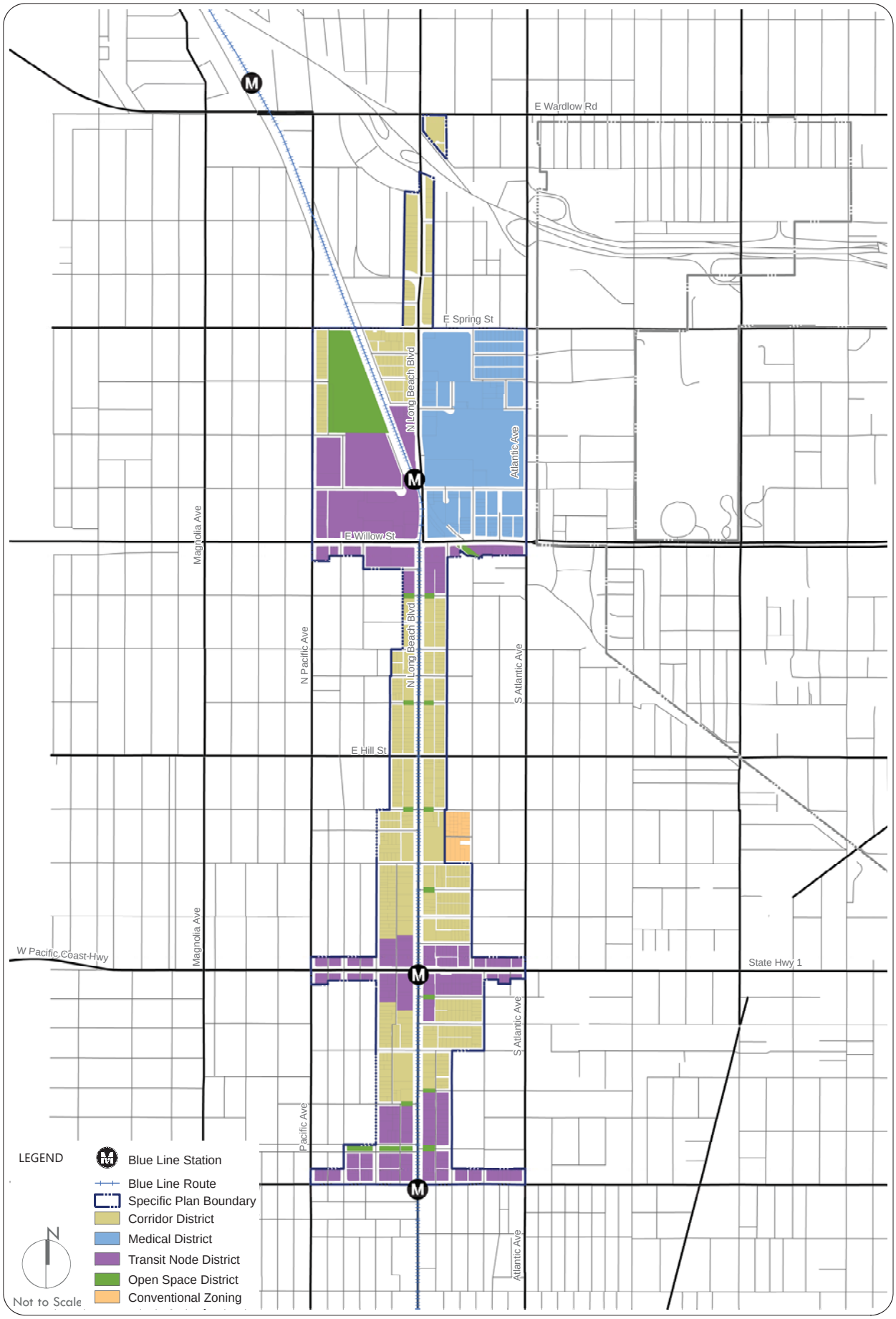
The proposed 370-acre Midtown Specific Plan will redevelop the segment of Long Beach Boulevard between Willow Street and Anaheim Street in the City of Long Beach. The proposed development consists of four development districts, each with its own development standards and land use patterns:

- Transit Node (TN) – The Transit Node District (83 acres) supports compact, transit-oriented mixed-use and residential development centered on the existing three Metro Blue Line stations.
- Corridor (CDR) – The Corridor District (93 acres) is applied to properties along Long Beach Boulevard between Blue Line stations and is intended to provide housing options and neighborhood serving uses within walking distance of a transit node.
- Medical (M) – The Medical District (63 acres) establishes a comprehensive health campus based on the Long Beach Memorial Medical Center's master planning efforts.
- Open Space (OS) – The Open Space District (18 acres) identifies existing areas reserved for community and mini parks, and creates new spaces for wellness parks and streetlet parks (parklets).

Additionally, the project includes the conversion of four acres consisting of two residential blocks around Officer Black Park, to conventional zoning designations. The proposed project also includes the closure of the following roadway segments to vehicular traffic to create parklets:

- 25th Street west of Long Beach Boulevard
- 25th Street east of Long Beach Boulevard
- 23rd Street west of Long Beach Boulevard
- 23rd Street east of Long Beach Boulevard
- 21st Street west of Long Beach Boulevard
- 21st Street east of Long Beach Boulevard
- Rhea Street east of Long Beach Boulevard
- Esther Street east of Long Beach Boulevard
- 15th Street west of Long Beach Boulevard
- 15th Street east of Long Beach Boulevard
- 14th Street east of Long Beach Boulevard

The proposed project increases the number of residential units for the project site to a little under 3,700, approximately 1,700 more than existing conditions. The proposed project also increases potential commercial and employment building space to approximately 3 million square feet, a net increase of approximately 369,000 square feet over existing conditions. In addition, 27 new hospital beds and 81 new hotel rooms would be added, bringing the number of licensed hospital beds from 956 to 983 and the number of hotel rooms from 196 to 277. Detailed descriptions of land use assumptions by district for the existing and proposed conditions are provided in Appendix E. The proposed project is shown on Figure 1.



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PROPOSED ZONING

FIGURE 1

PROJECT STUDY AREA

The study area limits for the project are Pacific Avenue to the west, Wardlow Road to the North, Atlantic Avenue to the east, and Anaheim Street to the south. The project study area was established in accordance with City of Long Beach Traffic Engineering staff and covers the area surrounding Long Beach Boulevard which would be affected by the project.

Fehr & Peers worked with City staff and identified 15 study intersections for analysis in this study. A vicinity map displaying the project location, study area, and analyzed intersections is provided in Figure 2.

The following study intersections were identified for inclusion in this study:

1. Long Beach Boulevard & Spring Street
2. Pacific Avenue & Willow Street
3. Long Beach Boulevard & Willow Street
4. Atlantic Avenue & Willow Street
5. Long Beach Boulevard & Hill Street
6. Pacific Avenue & Pacific Coast Highway (SR-1)
7. Long Beach Boulevard & Pacific Coast Highway (SR-1)
8. Atlantic Avenue & Pacific Coast Highway (SR-1)
9. Pacific Avenue & Anaheim Street
10. Long Beach Boulevard & Anaheim Street
11. Atlantic Avenue & Anaheim Street
12. Atlantic Avenue & Interstate 405 (I-405) Southbound Ramps
13. Atlantic Avenue & Spring Street
14. Atlantic Avenue & Columbia Street
15. Atlantic Avenue & 27th Street

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PROJECT STUDY AREA AND ANALYZED INTERSECTIONS

FIGURE 2

ANALYSIS SCENARIOS

The following analysis scenarios were analyzed consistent with the Los Angeles County Congestion Management Program (CMP) Guidelines:

- Existing (2014) Conditions – Consists of existing (May 2012 and January 2014) counts collected at study intersections and roadway segments.
- Existing (2014) Plus Project Conditions – Consists of Existing Conditions traffic volumes plus traffic generated from the proposed project.
- Cumulative Year (2035) No Project Conditions – Consists of Existing (2014) Conditions traffic volumes plus an annual growth rate factor of 0.71 percent per year through Year 2035.
- Cumulative Year (2035) Plus Project Conditions – Consists of Cumulative Year (2035) No Project Conditions traffic volumes plus traffic generated from the proposed project.

3. EXISTING CONDITIONS

The City of Long Beach is located in Los Angeles County along the Pacific Coast. The Pacific Ocean lies to the south, the Cities of Los Angeles, Carson and Compton border to the west, the Cities of Paramount, Lakewood and Hawaiian Gardens border to the north, the Cities of Cypress, Los Alamitos, and Seal Beach border to the east and the City of Long Beach surrounds the City of Signal Hill. Regional access to Long Beach is provided by Interstate 405 (I-405), Interstate 710 (I-710), State Route 1 (Pacific Coast Highway), State Route 103 (SR-103), State Route 19 (Lakewood Boulevard), Interstate 605 (I-605) and State Route 22 (SR-22).

This chapter discusses the existing transportation conditions in the project study area. This discussion addresses the roadway, transit, and pedestrian networks.

EXISTING ROADWAY FACILITIES

Regional access to Long Beach Boulevard within the study area is provided by the I-405, I-710 and Pacific Coast Highway. Roadways in the study area are classified per the Proposed City of Long Beach Mobility Element and the Los Angeles County Congestion management Plan, and described in detail below.

REGIONAL ROADS

- Pacific Coast Highway (SR-1) – Pacific Coast Highway is classified in the Los Angeles County Congestion Management Plan (CMP) as a State Highway (Arterial) and in the City of Long Beach Mobility Element as a Regional Corridor. The roadway extends from State Route 101 in Leggett, California south along the Pacific Coast over 650 miles before terminating at Interstate 5 in Dana Point, California. Within the study area, the Pacific Coast Highway has an east-west orientation and is a six lane facility divided by a two-way left turn lane. On-street parking is generally permitted with time restraints and other restrictions. The posted speed limit along Pacific Coast Highway within the study limits is 35 miles per hour (mph).

LOCAL ACCESS ROADS

- Long Beach Boulevard – Long Beach Boulevard is classified in the City of Long Beach Mobility Element as a Boulevard. The roadway runs in a north-south direction providing direct access to the I-405, I-710 and Pacific Coast Highway. Long Beach Boulevard begins in Huntington Park as Pacific Boulevard and extends through the Cities of South Gate, Lynwood, and Compton before terminating in Long Beach at Ocean Boulevard. Within the study area Long Beach Boulevard is a four lane facility divided by the Metro Blue Line rail line in the center median. On-street parking is permitted throughout Long Beach Boulevard with some exceptions and the posted speed limit varies between 30-35 mph.

- Atlantic Avenue – Atlantic Avenue is classified in the City of Long Beach Mobility Element as a Major Avenue. The roadway runs in a north-south direction providing access to the I-405 and Pacific Coast Highway. Atlantic Avenue begins in the City of Commerce as Atlantic Boulevard and stretches south through the Cities of Maywood, South Gate, Lynwood and Compton before terminating at Ocean Boulevard in the City of Long Beach. Within the study area Atlantic Avenue is an undivided four lane facility. On-street parking is generally permitted throughout Atlantic Avenue and the posted speed limit varies between 30-35 mph.

- Pacific Avenue – Pacific Avenue is classified as a Major Avenue south of Pacific Coast Highway and as a Minor Avenue north of Pacific Coast Highway in the City of Long Beach Mobility Element as a Major Avenue. The roadway runs in a north-south direction providing access to the I-405 and Pacific Coast Highway. Pacific Avenue begins at the I-405 and stretches south before terminating at Ocean Boulevard in the City of Long Beach. Within the study area Pacific Avenue is a four lane facility divided by either a two-way left turn lane or a raised center median. On-street parking is generally permitted throughout Pacific Avenue and the posted speed limit varies between 30-35 mph.

- Spring Street – Spring Street is classified in the City of Long Beach Mobility Element as a Neighborhood Connector west of Pacific Avenue, a Minor Avenue west of Long Beach Boulevard, and a Major Avenue east of Long Beach Boulevard. The roadway runs in an east-west direction providing access to Long Beach Boulevard and the I-405. Spring Street begins at the Los Angeles River west of Long Beach Boulevard and extends to I-605 where it changes to Cerritos Avenue. Within the study area Spring Street is a four lane facility divided by a two-way left turn lane west of Long Beach Boulevard and by a raised center median east of Long Beach Boulevard. West of Long Beach Boulevard, Spring Street provides on-street bicycle facilities and does not permit on-street parking, while east of Long Beach Boulevard, Spring Street provides a shared bicycle route and permits on-street parking. The posted speed limit on Spring Street is 30 mph.

- Willow Street – Willow Street is classified in the City of Long Beach Mobility Element as a Boulevard. Willow Street begins at SR-103 continuing from Sepulveda Boulevard and turns into Katella Avenue at I-605, providing access to SR-103, I-710, Long Beach Boulevard, I-405 and I-605. Within the study area Willow Street is a 6 lane facility divided by a raised center median except 400 feet east and west of Long Beach Boulevard where the segment is undivided. Limited on-street parking is provided by Willow Street and the posted speed limit varies between 35-40 mph.

- Hill Street – Hill Street is classified in the City of Long Beach Mobility Element as a Neighborhood Connector. Hill Street begins at the Los Angeles River at De Forest Avenue and extends through Long Beach before terminating at Bay View Drive. Within the study area Hill Street is a two lane, undivided facility. On-street parking is generally permitted on Hill Street and the posted speed limit is 25 mph.

- Anaheim Street – Anaheim Street is classified in the City of Long Beach Mobility Element as a Major Avenue. Anaheim Street begins in Harbor City at Western Avenue and terminates in Long Beach at Pacific Coast Highway, providing access to Interstate 110, I-710 and Pacific Coast Highway. Within the study area Anaheim Street is a four lane facility divided by a two-way left turn lane. On-street

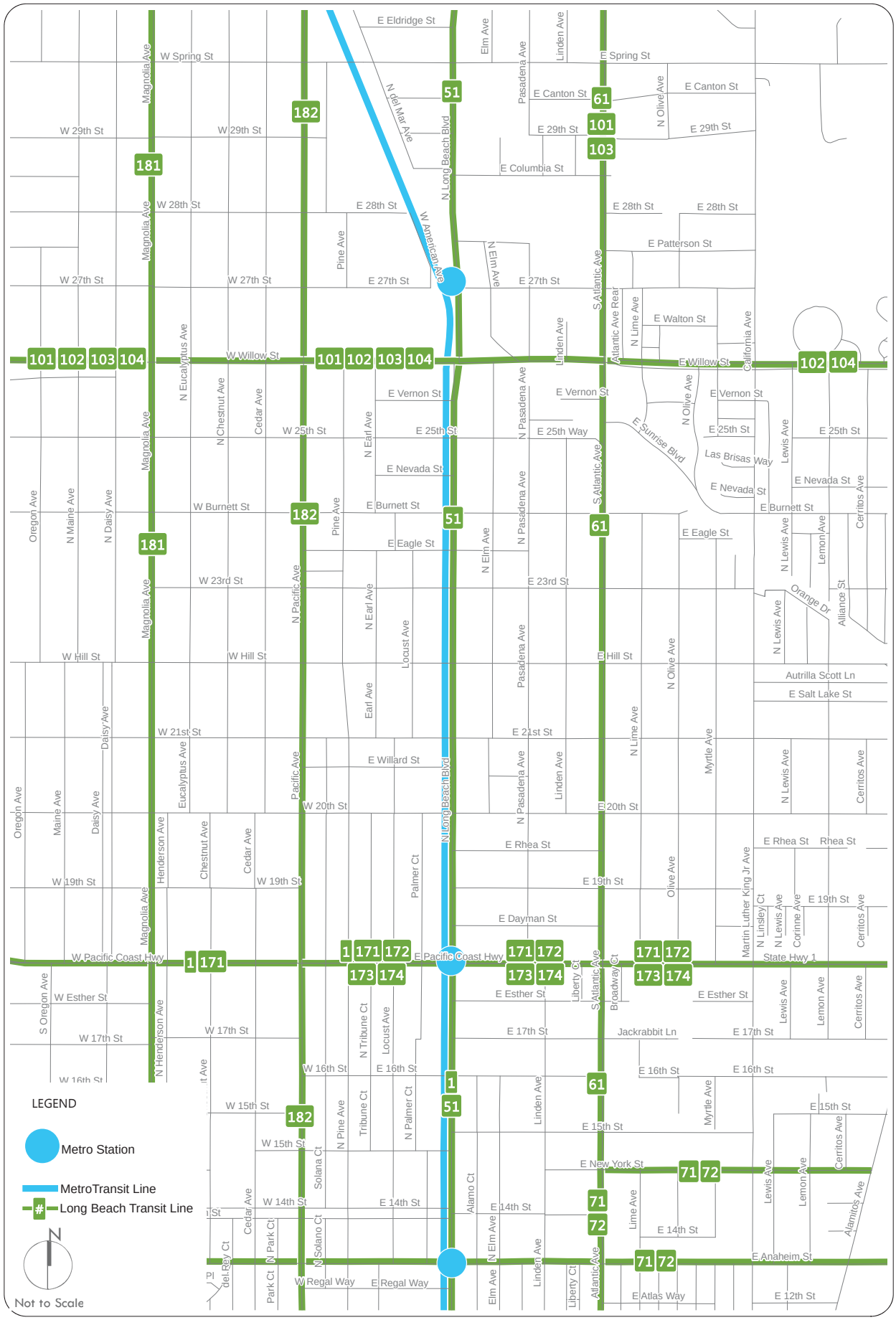
parking on Anaheim Street is generally not permitted with some exceptions and the posted speed limit is 30 mph.

EXISTING TRANSIT FACILITIES

The study area is serviced by multiple Long Beach Transit bus routes and the Metro Rail Blue Line. The City of Long Beach has high bus ridership rates that totaled 1,123,977 average weekday boardings as of June 2012 according to Metro ridership statistics. Metro also has the highest ridership rates in the county along the Blue Line totaling 89,523 average weekday boardings as of June 2012. The routes are shown on Figure 3 and described below.

LONG BEACH TRANSIT

- Route 1 (Easy Ave.) – Route 1 begins at the Transit Gallery on First Street in downtown Long Beach running north along Long Beach Blvd. before going west on Pacific Coast Highway and ending at Wardlow Metro Blue Line Station via Easy Ave. Route 1 operates on 30- to 50-minute headways during weekdays and on 45- to 60-minute headways on weekends.
- Route 51 (Long Beach Blvd. to Artesia Station) – Route 51 serves Long Beach Blvd. beginning at the Transit Gallery in downtown Long Beach and runs north along Long Beach Blvd. to the Artesia Blue Line Station near Compton City College. Route 51 operates on 12- to 30-minute headways during weekdays and on 20- to 30-minute headways on weekends.
- Route 61 (Atlantic Ave. to Artesia Station) – Route 61 mainly serves Atlantic Ave. beginning at the Transit Gallery in downtown Long Beach and runs north along Atlantic Ave. to the Artesia Metro Blue Line Station. Route 61 operates on 12- to 30-minute headways during weekdays and on 20- to 30-minute headways on weekends.
- Route 71 (Alamitos / Orange Ave.) – Route 71 begins at the Transit Gallery and runs north along Alamitos Ave. and Orange Ave. until the Richfield and Garfield intersection. Route 71 operates on 55- to 60-minute headways during weekdays and on 55- to 110-minute headways on weekends.
- Route 72 (Alamitos / Orange Ave. / Hunsaker Ave.) – Route 72 follows the same course as Route 71 with a slight detour at Orange and Artesia. Route 72 operates on 60-minute headways during weekdays and on 90-minute headways on weekends.
- Route 101 (Carson St. / Norwalk Blvd.) – Route 101 begins by running east along Willow Street starting at the Transit Gallery and then runs north along Atlantic Ave. before going east to the Town Center. Route 101 operates on 40- to 60-minute headways during weekdays and on 60-minute headways on Saturdays. It does not operate on Sundays.


LEGEND
Metro Station
MetroTransit Line
Long Beach Transit Line
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W Willow St
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E New York St
W 14th St
E 14th St
W Regal Way
E Regal Way
E Anaheim St
E Atlas Way
E 12th St
Magnolia Ave
N Long Beach Blvd
W American Ave
N del Mar Ave
S Atlantic Ave
Atlantic Ave Rear
N Olive Ave
E Sunrise Blvd
Las Brisas Way
Orange Dr
Alliance St
Cerritos Ave
Lemon Ave
Lewis Ave
N Lewis Ave
California Ave
Linden Ave
Pasadena Ave
N Pasadena Ave
Elm Ave
N Elm Ave
Pine Ave
N Pine Ave
Cedar Ave
N Chestnut Ave
Chestnut Ave
N Eucalyptus Ave
Eucalyptus Ave
Oregon Ave
Maine Ave
N Maine Ave
Daisy Ave
N Daisy Ave
N Earl Ave
Earl Ave
Locust Ave
N Pacific Ave
Pacific Ave
Henderson Ave
N Henderson Ave
S Oregon Ave
Palmer Ct
N Palmer Ct
N Tribune Ct
Tribune Ct
Solana Ct
Alamo Ct
Park Ct
N Park Ct
del Rey Ct
Liberty Ct
Broadway Ct
N Lime Ave
Lime Ave
Myrtle Ave
Olive Ave
Martin Luther King Jr Ave
N Linsley Ct
Corinne Ave
Alamitos Ave
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102
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72

- Route 102 (Willow / Spring) – Route 102 mainly serves Willow Street beginning at the Transit Gallery near downtown Long Beach and running east until Towne Center East. Route 102 operates on 60- to 70-minute headways during weekdays. It does not operate on weekends.
- Route 103 (Carson St. to Lakewood Mall) – Route 103 follows the same course as Route 101 but does not run all the way to Tri City Medical Center and instead runs to Lakewood Center Mall. Route 103 operates on 40- to 70-minute headways during weekdays and on 60-minute headways on Saturdays. It does not operate on Sundays.
- Route 104 (Willow / Spring / Nature Center) – Route 104 follows the same course as Route 102 with a slight detour serving the El Dorado Nature Center. Route 102 operates on 40- to 70-minute headways during weekdays and on 60-minute headways on Saturdays. It does not operate on Sundays.
- Route 171 (PCH to Seal Beach) – Route 171 runs almost entirely along the Pacific Coast Highway from the Villages at Cabrillo to the Market Place near the border of Long Beach and Seal Beach. Route 171 operates on 35- to 40-minute headways during weekdays and on 45- to 50-minute headways on weekends.
- Route 172 (PCH / Palo Verde) – Route 172 begins at the Transit Gallery and runs east along the Pacific Coast Highway and north on Palo Verde to Cerritos. Route 172 operates on 30- to 60-minute headways during weekdays and on 45- to 65-minute headways on weekends.
- Route 173 (PCH / Studebaker) – Route 173 begins at the Transit Gallery and runs east along the Pacific Coast Highway and then north on Studebaker to the Metro Green Line Norwalk Station. Route 173 operates on 30- to 60-minute headways during weekdays and on 45-to 60- minute headways on weekends.
- Route 174 (PCH / Ximeno Ave. Only) – Route 174 begins at the Transit Gallery and runs east along the Pacific Coast Highway until the traffic circle at PCH and Lakewood Blvd. Route 174 operates on a limited schedule with 30- to 60-minute headways during weekdays and on 30- to 60-minute headways on weekends.
- Route 181 (Magnolia Ave.) – Route 181 mainly serves Magnolia Ave. beginning at the Transit Gallery near downtown Long Beach and runs north along Magnolia Ave. to the Wardlow Metro Blue Line Station. Route 181 operates on 30- to 60-minute headways during weekdays and on 60-minute headways on weekends.
- Route 182 (Pacific Ave.) – Route 182 serves Pacific Ave. beginning at the Transit Gallery near downtown Long Beach and runs north along Pacific Ave. to the Wardlow Metro Blue Line Station. Route 182 operates on 30- to 60-minute headways during weekdays and on 60-minute headways on weekends.

METRO BLUE LINE

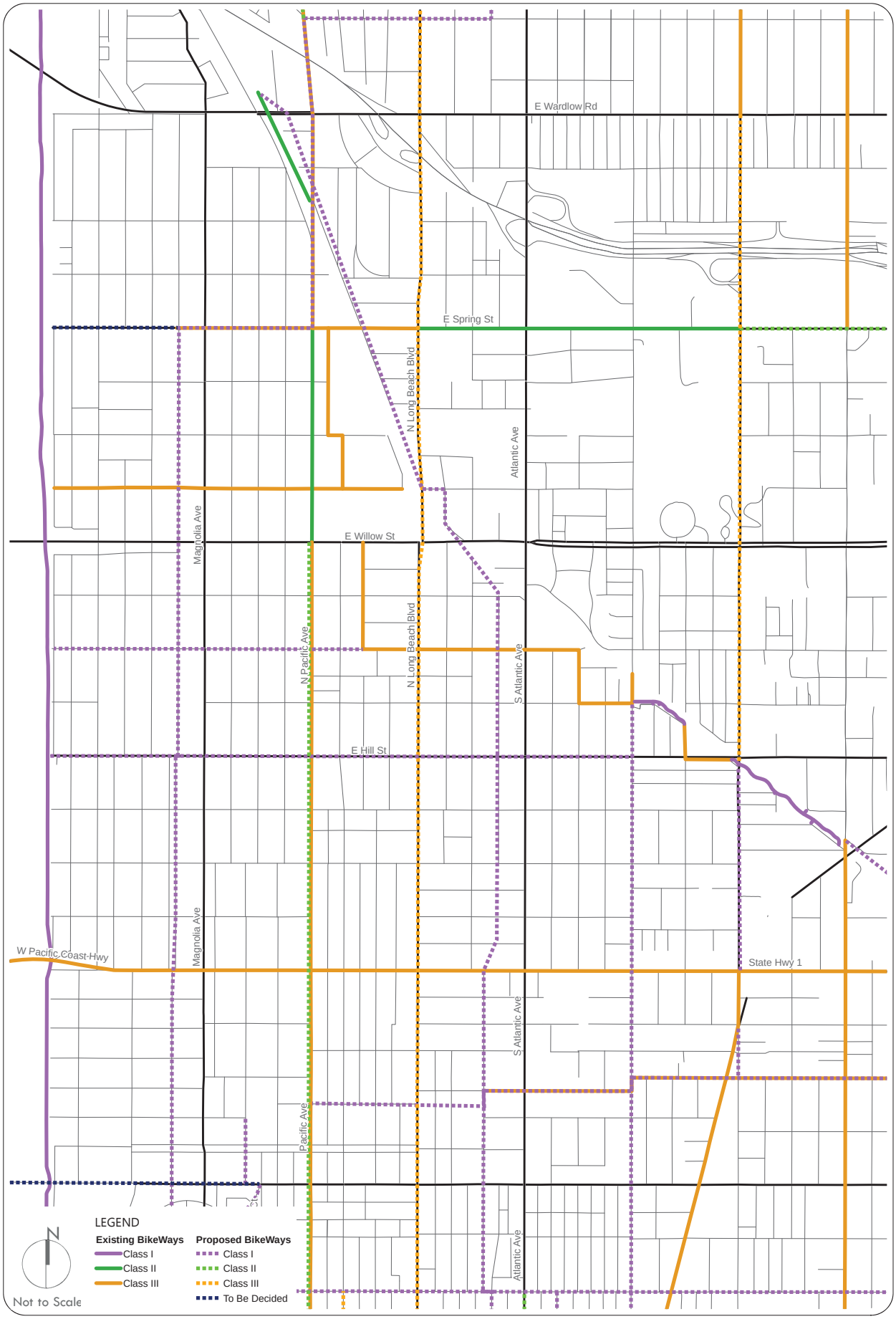
- Metro Blue Line (Downtown LA to Long Beach) – The Metro Blue Line begins at the Transit Gallery and runs north to the 7th Street Metro Center in Downtown Los Angeles. From the Transit Gallery, the Blue Line runs north in the center of Long Beach Boulevard before extending north along streets including Pacific Place, Santa Fe Avenue, Willowbrook Avenue, Graham Avenue, Long Beach Avenue, Washington Boulevard and Flower Street, ending at the 7th Street Metro Station. Within the study area, the Metro Blue Line has stops at Anaheim Street, Pacific Coast Highway and Willow Street. It operates on 6- to 14-minute headways during weekdays and on 9- to 16-minute headways on weekends.

EXISTING BICYCLE FACILITIES

The City of Long Beach is serviced by Class I, II, and III bicycle lanes, bicycle boulevards and separated bicycle lanes (Cycle track). The following is a description of each bicycle facility available in the City of Long Beach:

- Class I bike paths are separated from roadway traffic and allows bicyclist and pedestrian access.
- Class II bicycle facilities are designated lanes alongside vehicular traffic lanes.
- Class III bike routes are roadways that are signed for bicyclists, and sometimes striped with a sharrow marking, but have no designated lane.
- Bicycle boulevards are low speed streets that have been 'optimized' for bicycle traffic through traffic calming and right-of-way assignment. These are typically neighborhood streets that allow local vehicle traffic access but discourage cut-through vehicle traffic. The City of Long Beach has approved the installation of three new bicycle boulevards, which will amount to four total bicycle boulevards that stretch over 15 miles throughout the City.
- Separated bicycle lanes, also known as the "Cycle Track" in the City of Long Beach, are exclusive bicycle facilities with elements of a separated path and on-road bike lane. Cycle Tracks are within the roadway right-of-way but are physically separated from motor traffic. In 2002, the City of Long Beach installed over two miles of Cycle Track in the downtown area.

Existing and future bicycle facilities are shown on Figure 4. Existing morning (7:00 to 9:00 AM) and afternoon (4:00 to 6:00 PM) peak period bicycle counts at 11 analyzed intersections were conducted on May 17, 2012. Bicycle counts were conducted at the remaining four intersections on January 14, 2014. Count sheets are provided in Appendix A. Figure 5 summarizes the existing AM and PM bicycle volumes at the analyzed intersections.



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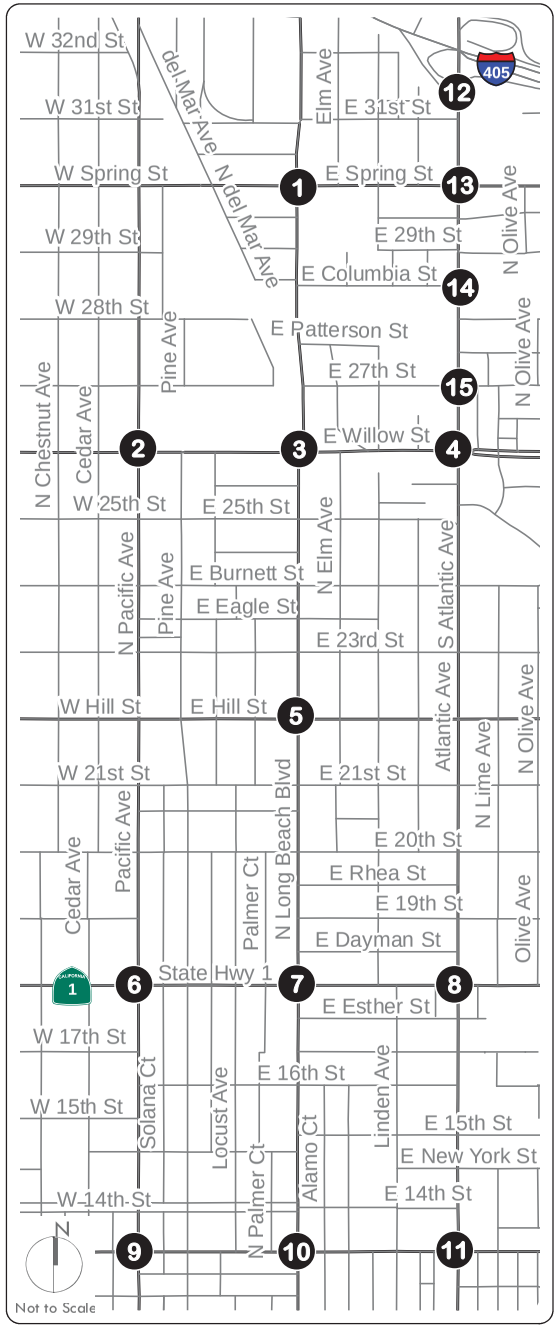
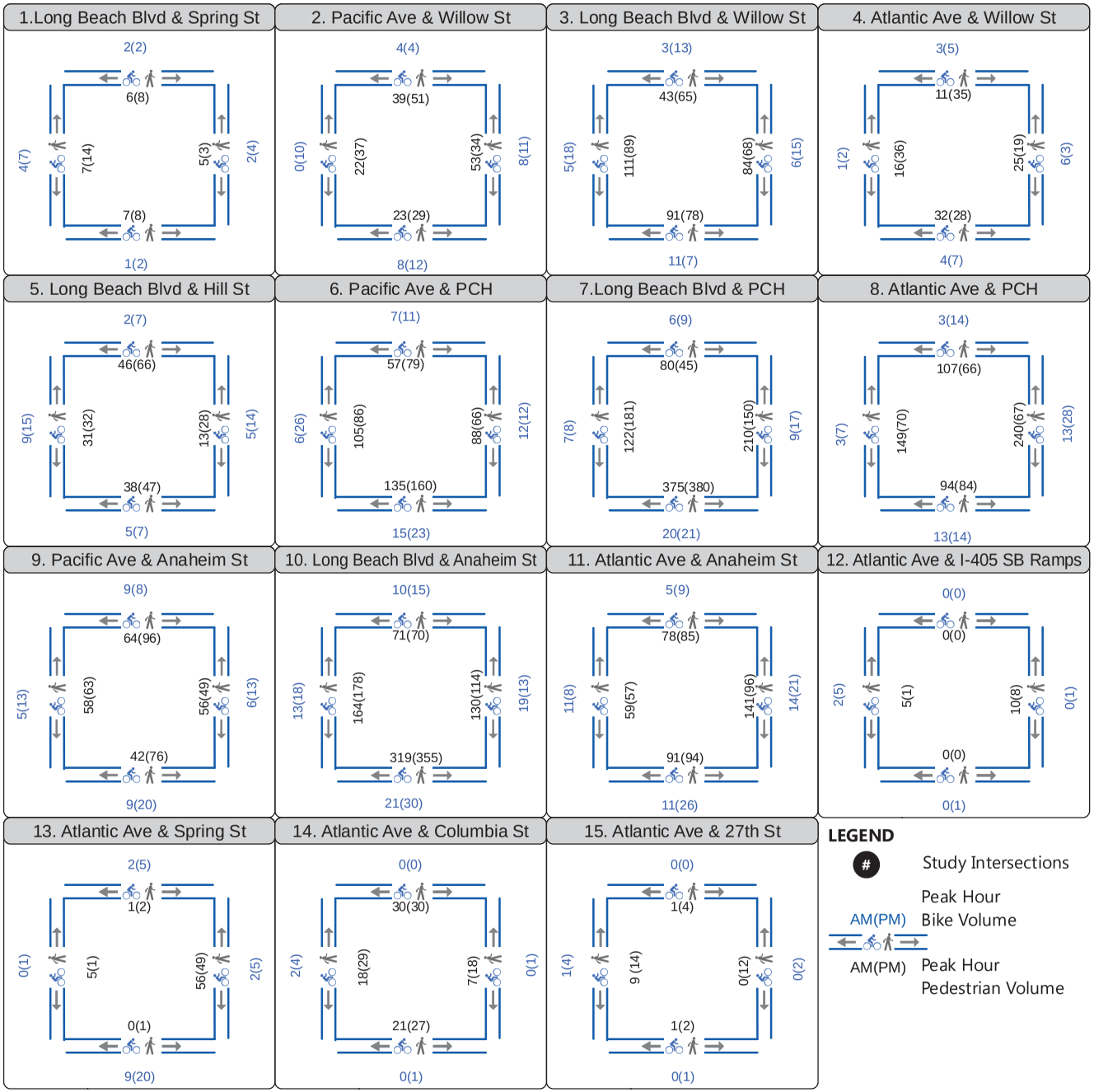
EXISTING AND PROPOSED BIKEWAYS

FIGURE 4





EXISTING PEAK HOUR BIKE AND PEDESTRIAN VOLUMES

FIGURE 5

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EXISTING PEDESTRIAN FACILITIES

Pedestrian facilities throughout the City of Long Beach are well developed along most major roadways. Roadways within the study area have sidewalks on both sides of the street, pedestrian crosswalks, appropriate pedestrian crossing controls and allow for connectivity to local activity centers.

Existing morning (7:00 to 9:00 AM) and afternoon (4:00 to 6:00 PM) peak period pedestrian counts at the 11 analyzed intersections were conducted May 17, 2012. Pedestrian counts were conducted at the remaining four intersections and on January 14, 2014. Count sheets are provided in Appendix A. Figure 5 summarizes the existing AM and PM pedestrian volumes at the analyzed intersections.

EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Existing morning (7:00 to 9:00 AM) and afternoon (4:00 to 6:00 PM) peak period vehicle counts at the 11 analyzed intersections and 24-hour daily traffic counts at ten roadway segments were conducted May 17, 2012. Counts were conducted at the remaining four intersections and four roadway segments on January 14, 2014. Daily traffic counts at the proposed parklet locations were also conducted on January 14, 2014. Count sheets are provided in Appendix A. Field observations and lane configuration data was collected on May 17, 2012 and January 14, 2014. Signal timing information for the signalized study intersections was provided by the City and Caltrans. Signal timing parameters were provided for the AM and PM peak hours and used in the analysis. Figure 6 summarizes the existing AM and PM peak traffic volumes and lane configurations.

EXISTING INTERSECTION OPERATIONS

METHODOLOGY

For signalized intersections, the traffic analysis of this project was evaluated in accordance with the CMP guidelines using the Intersection Capacity Utilization (ICU) methodology. For unsignalized intersections, methodologies consistent with the *Highway Capacity Manual 2010 (HCM 2010)* were applied.

The ICU methodology is considered a standard approach for evaluating signalized intersection operations in Los Angeles County and in the City of Long Beach. It reports the volume-to-capacity (V/C) ratio at the intersection for signalized intersections, which evaluates the critical movements for each signal and compares that to the critical movement capacity of the intersection.

Based on the V/C and delay findings, the methodologies assign a qualitative letter grade that represents the operations of the intersection. These grades range from level of service (LOS) A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for intersections are provided in Table 1.

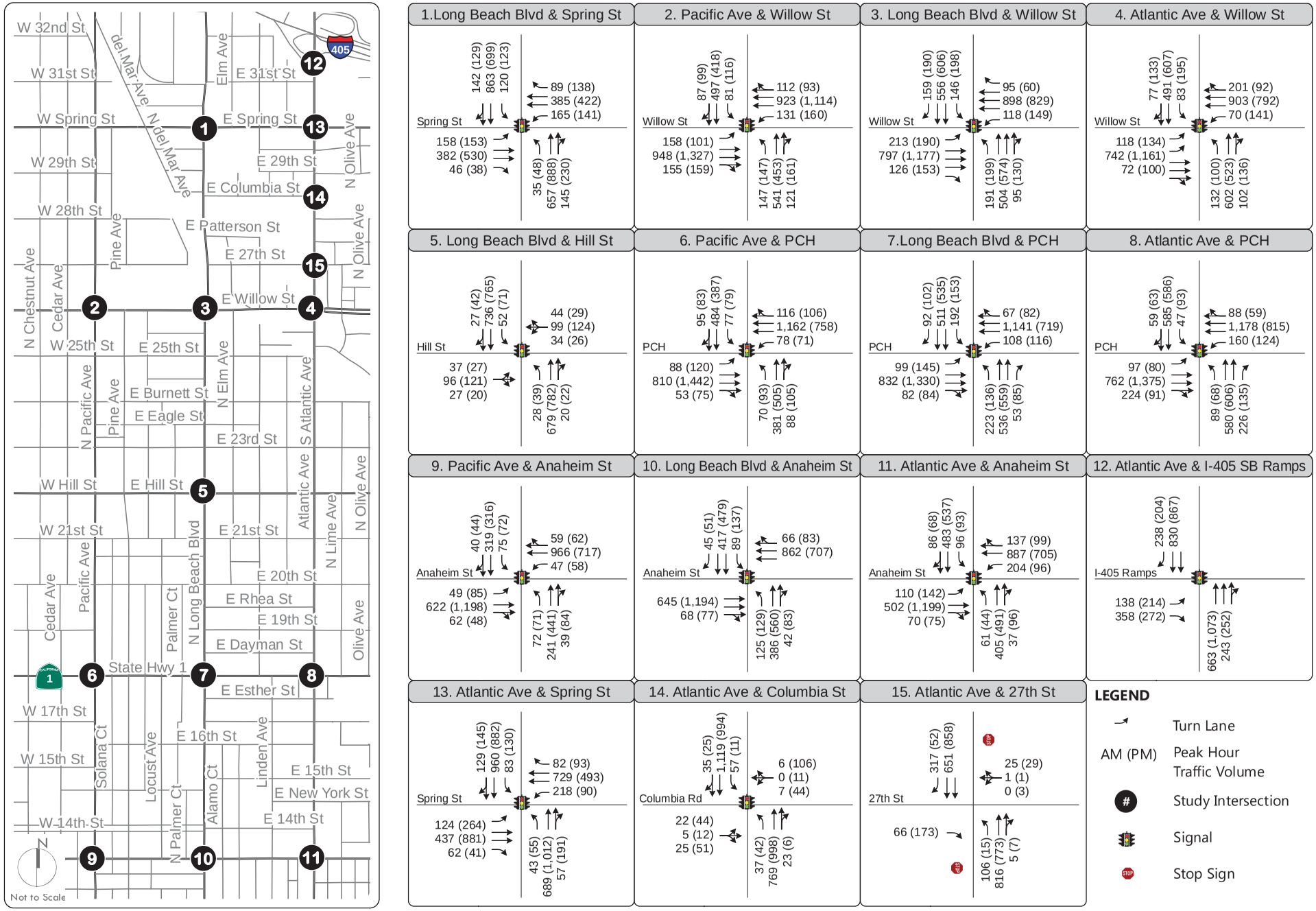
The following parameters, based on the Los Angeles CMP guidelines, were used in the traffic analysis:

- Through lane capacities of 1,600 vehicles per hour per lane, turn lane capacities of 1,600 vehicles per hour per lane, and a ten percent clearance reduction is used.
- A peak hour factor (PHF) of 1.00 is used for the ICU analysis.
- A loss time of ten percent will be applied when calculating V/C.
- A peak hour truck percentage of 2% was applied to represent heavy truck and general traffic characteristics in our study area based on our field visit and knowledge of the study area.

For the one unsignalized side-street stop-controlled intersection, the HCM methodology estimates the longest-delayed turning movement. In cases where there are shared lanes, the average delay in that lane is reported. Table 1 also summarizes the LOS grades for unsignalized intersections.

TABLE 1 INTERSECTION LEVEL OF SERVICE CRITERIA

Level of Service	Description	Signalized Intersections Volume-to-Capacity (V/C) Ratio	Unsignalized Intersections Delay (seconds)
A	Signalized: Operations with very low delay occurring with favorable progression and/or short cycle length. Unsignalized: Little or no delay.	0.000-0.600	≤ 10.0
B	Signalized: Operations with low delay occurring with good progression and/or short cycle lengths. Unsignalized: Short traffic delays.	0.601-0.700	> 10.0 to 15.0
C	Signalized: Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. Unsignalized: Average traffic delays.	0.701-0.800	> 15.0 to 25.0
D	Signalized: Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. Unsignalized: Long traffic delays.	0.801-0.900	> 25.0 to 35.0
E	Signalized: Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. Unsignalized: Very long traffic delays.	0.901-1.000	> 35.0 to 50.0
F	Signalized: Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths. Unsignalized: Extreme traffic delays with intersection capacity exceeded	Greater than 1.000	Greater than 50.0



EXISTING TRAFFIC CONTROLS, LANE CONFIGURATIONS AND PEAK HOUR VOLUMES

FEHR PEERS

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FIGURE 6

EXISTING LEVEL OF SERVICE

Existing traffic volumes, lane configurations collected in the field, and signal timing information provided by City staff were used to analyze operations at the study intersections for existing AM and PM peak hour conditions using the ICU and HCM 2010 methodologies. The results are summarized in Table 2. LOS sheets are provided in Appendix B. As shown in Table 2, all of the study intersections currently operate acceptably at LOS D or better during the peak hours.

TABLE 2 INTERSECTION LEVEL OF SERVICE
EXISTING (2014) CONDITIONS

Intersection	Control	AM Peak		PM Peak	
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS
1. Long Beach Blvd & Spring St	Signal	0.645	B	.780	C
2. Pacific Ave & Willow St	Signal	0.689	B	.774	C
3. Long Beach Blvd & Willow St	Signal	0.713	C	.752	C
4. Atlantic Ave & Willow St	Signal	0.643	B	.779	C
5. Long Beach Blvd & Hill St	Signal	0.490	A	.524	A
6. Pacific Ave & PCH	Signal	0.646	B	.700	C
7. Long Beach Blvd & PCH	Signal	0.713	C	.737	C
8. Atlantic Ave & PCH	Signal	0.681	B	.730	C
9. Pacific Ave & Anaheim St	Signal	0.735	B	.735	C
10. Long Beach Blvd & Anaheim St	Signal	0.502	A	.651	B
11. Atlantic Ave & Anaheim St	Signal	0.705	C	.800	C
12. Atlantic Ave & I-405 SB Ramps	Signal	0.583	A	.546	A
13. Atlantic Ave & Spring St	Signal	0.772	C	.889	D
14. Atlantic Ave & Columbia St	Signal	0.521	A	.573	A
15. Atlantic Ave & 27th St	Side-Street Stop	13.9	B	18.0	C

Notes:
1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.
2. Delay for unsignalized intersections based on application of Highway Capacity Methodology using Synchro software. Delay reported is the worst-case approach delay.

Source: Fehr & Peers, 2014

4. EXISTING (2014) PLUS PROJECT TRAFFIC CONDITIONS

This chapter evaluates the Existing (2014) Plus Project conditions. This scenario includes the addition of traffic generated from the proposed project. This condition is used to evaluate the net change in traffic conditions and to identify potential traffic impacts associated with the proposed project.

PROJECT TRAFFIC VOLUMES

TRIP GENERATION

The proposed project will generate additional vehicular travel in the study area. Given the mixed-use nature of the site, it will not generate traffic in a similar manner as traditional development sites. As such, the trip generation analysis considers the combined effects of the Project's mixed uses, regional location, demographics, and development scale. These factors contribute to a reduction (when compared to national homogeneous development projects) in off-site average weekday vehicle "trips" (e.g., one vehicle trip is when a person drives from their home to school, shopping or their job; their return drive home is counted as another trip). This reduction is due largely to the Project's ability to "internally capture" these trips. That is, most of the reduction in total daily vehicle off-site trips generated by the Project is attributable to those trips beginning and ending on the Project site. (e.g., both a person's home and their job, shopping or local school are on the project site.).

Traditionally, traffic engineers and transportation planners have estimated internalization of project trips using one of two methods. First, they would estimate it based on their professional judgment. Alternatively, professionals relied on the Institute of Transportation Engineers' (ITE) internalization methodology presented in the ITE Trip Generation Handbook. Although this method has been applied in thousands of studies in California, the methodology is limited as it was based on only six surveys conducted in Florida. Additionally, the ITE internalization methodology only accounts for the land use types on the mixed-use site. Given the limited input information (land use amount and type) and the limited range of data (six surveys), the accuracy of the internalization estimates has recently been found to generally under-estimate internalization of trips from mixed-use projects.

Seeing the limited data set and simplified methodology applied in the ITE handbook, the United States Environmental Protection Agency (EPA) commissioned a study to develop a more substantial, statistically superior methodology. This methodology, identified as MXD (or mixed-use development trip generation), begins with ITE rates and develops trip internalization estimates based on a series of factors tied to numerous site attributes. The MXD methodology is described in greater detail below.

MXD Trip Internalization Methodology

The internal capture percentage reported is not an "assumed" number, but rather is a number that was derived using a best practices trip generation model designed specifically for mixed-use development (MXD) projects. The MXD model was developed through collaboration between consultants, the EPA, and an academic research team. The MXD model estimates trip generation and internal capture by adjusting trip generation rates to account for the influence of built environment variables. A variety of research studies have demonstrated that these variables influence vehicle trip generation, most of which are summarized on the EPA's website (http://www.epa.gov/smartgrowth/mxd_tripgeneration.html).

Variables used in the MXD model include general site information such as geographic factors, the land use of the surrounding area, and site/surrounding area demographics. Geographic factors, such as the site of the developed area and intersection density, influence internalization from a spatial standpoint – the denser the area the more likely certain types of trips can be completed within the mixed-use development and without the need to travel externally. Land use factors and demographics, such as employment, average household size, and vehicle ownership, influence how people in the mixed-used development might decide to travel.

A key feature of this project related to trip internalization is the proximity to transit. Accessibility to transit vastly increases transportation choices for those seeking to travel. This feature is also included in the MXD trip generation methodology as applied in this study as it accounts for the total employment located along the transit corridors and estimates the probability of a mode shift toward transit if development occurs within the mixed use site.

The MXD model was developed based on household travel survey data obtained from 239 existing mixed-use developments in six metropolitan regions throughout the U.S., including San Diego and Sacramento. The internal capture percentage calculated for the project is reflective of the varied land uses that would be developed as part of the Project, which would reduce the need to travel beyond the Project site, and is also consistent with the percentage found for other mixed-use developments of similar size and scope.

A set of 16 independent mixed use sites that were not included in the initial model were tested to help validate the model. Among the validation sites, use of the MXD model produced superior statistical performance when comparing the model results to observed data. Specifically, the MXD model had a significantly lower root mean squared error (RMSE) and higher pseudo-R squared than traditional methods when comparing estimated to observed external vehicle trips. Estimates from the ITE Trip Generation Manual had an RMSE of 40% and pseudo-R squared of 0.58 (i.e., the ITE method only explains about 58 percent of the variability in external vehicle trips), modified estimates using ITE's traditional trip

internalization techniques had an RMSE of 32% and pseudo-R squared of 0.73, whereas modified estimates using the MXD model had an RMSE of only 26% and pseudo-R squared of 0.82.

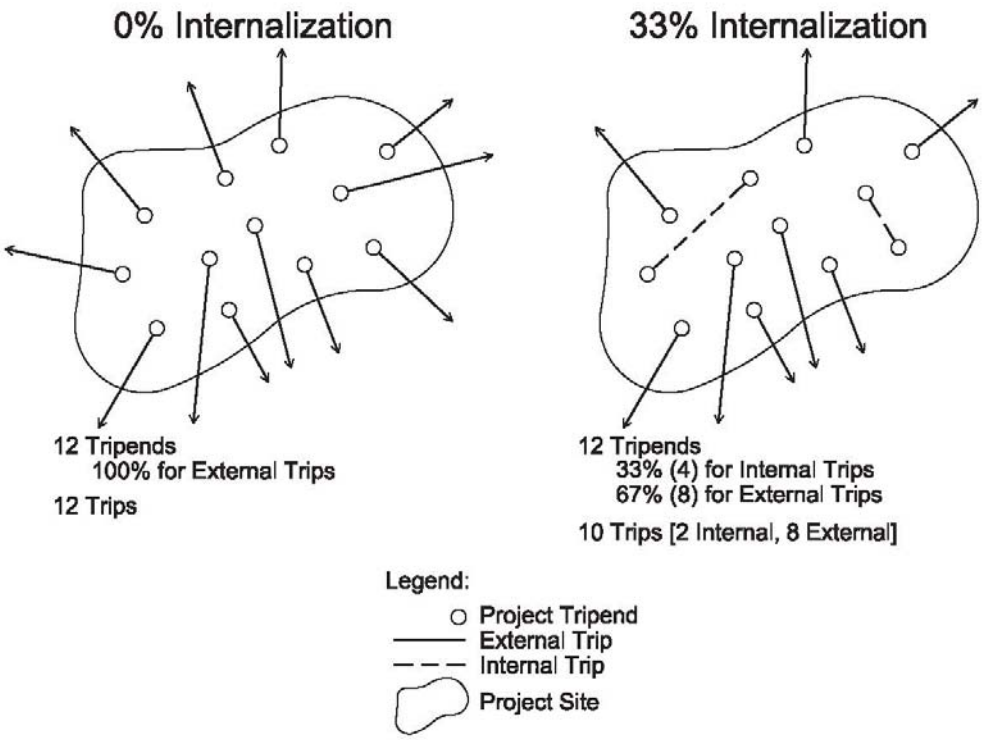
It should also be noted that the MXD model has been developed in cooperation with the EPA and ITE. Please note that ITE is currently reviewing the model for potential inclusion in their updated recommended practice for evaluating MXD projects.

Given the statistical robustness of the MXD model, it was deemed the most appropriate approach for estimating internalization of project trips.

MXD Model Inputs and Trip Generation Estimates

To determine the amount of trips that would be internal to the Project site, an MXD trip generation estimate was prepared. The MXD analysis first begins with gross trip rates identified in the Institute of Transportation Engineers' Trip Generation (9th Edition, 2012). It then incorporates the MXD methodology for "matching" trips to estimate the amount of internalization within the project site.

It also is worth noting that internal capture represents the percentage of Project tripends for trips that would remain internal to the Project site, which differs from the overall percentage of the net number of Project trips that remain internal to the Project site. In layman's terms, since each trip has two tripends (i.e., the beginning of the trip and the end of the trip), if a project generates 100 internalized trip ends, this represents 50 trips that are internal to the Project site (i.e., 100 tripends/2 tripends per trip = 50 trips). As such, when the number of trips is applied to the tripends component of the project, the total internal capture is roughly twice that which would otherwise be accounted for in the trips component. An example of the relationship between tripends and trips is provided in the following illustration:



To develop trip estimates that would be generated by the changes in land use proposed by the Midtown Specific Plan, Fehr & Peers developed trip estimates for the existing land use and the proposed land use in order to find the difference in trips between the two scenarios. This difference in trips is what is considered the project only trip generation estimates.

Table 3 summarizes the anticipated daily, AM, and PM peak hour of adjacent street traffic trips generated by the proposed project by district. As shown in the table, the land use proposed by the project generates fewer trips than the existing land use under certain time periods but overall generates almost 14,000 additional daily trips. MXD+ calculation worksheets for existing and proposed consitions are provided in Appendix F.

TABLE 3 PROJECT TRIP GENERATION ESTIMATES

Zone	Daily	AM Peak		PM Peak	
		In	Out	In	Out
Existing Land Use Plan					
Corridor District 1	8,524	206	189	328	352
Corridor District 2	17,908	414	343	649	697

TABLE 3 PROJECT TRIP GENERATION ESTIMATES

Zone	Daily	AM Peak		PM Peak	
		In	Out	In	Out
Corridor District 3	5,433	298	222	210	245
Medical District 4	10,568	415	147	339	617
Transit Node District 5	30,248	1,146	817	1,044	1,214
Transit Node District 6	18,895	515	482	678	694
Transit Node District 7	10,304	147	96	403	433
Total	**101,881**	**3,140**	**2,295**	**3,651**	**4,252**
Proposed Land Use Plan					
Corridor District 1	9,696	236	255	351	363
Corridor District 2	19,299	338	416	763	713
Corridor District 3	3,149	215	232	182	141
Medical District 4	19,335	758	390	626	947
Transit Node District 5	30,843	1,045	796	1,139	1,274
Transit Node District 6	19,637	626	515	708	747
Transit Node District 7	13,675	310	269	461	475
Total	**115,635**	**3,528**	**2,872**	**4,231**	**4,660**
Difference in Land Use Plans					
Corridor District 1	1,172	30	66	24	11
Corridor District 2	1,391	-76	73	115	16
Corridor District 3	-2,284	-83	10	-28	-103
Medical District 4	8,767	344	243	287	330
Transit Node District 5	595	-101	-20	95	61
Transit Node District 6	742	111	33	30	53
Transit Node District 7	3,371	163	173	58	41
Final Trip Generation Estimate	**13,754**	**388**	**577**	**580**	**409**

Source: Fehr & Peers, 2015

TRIP DISTRIBUTION

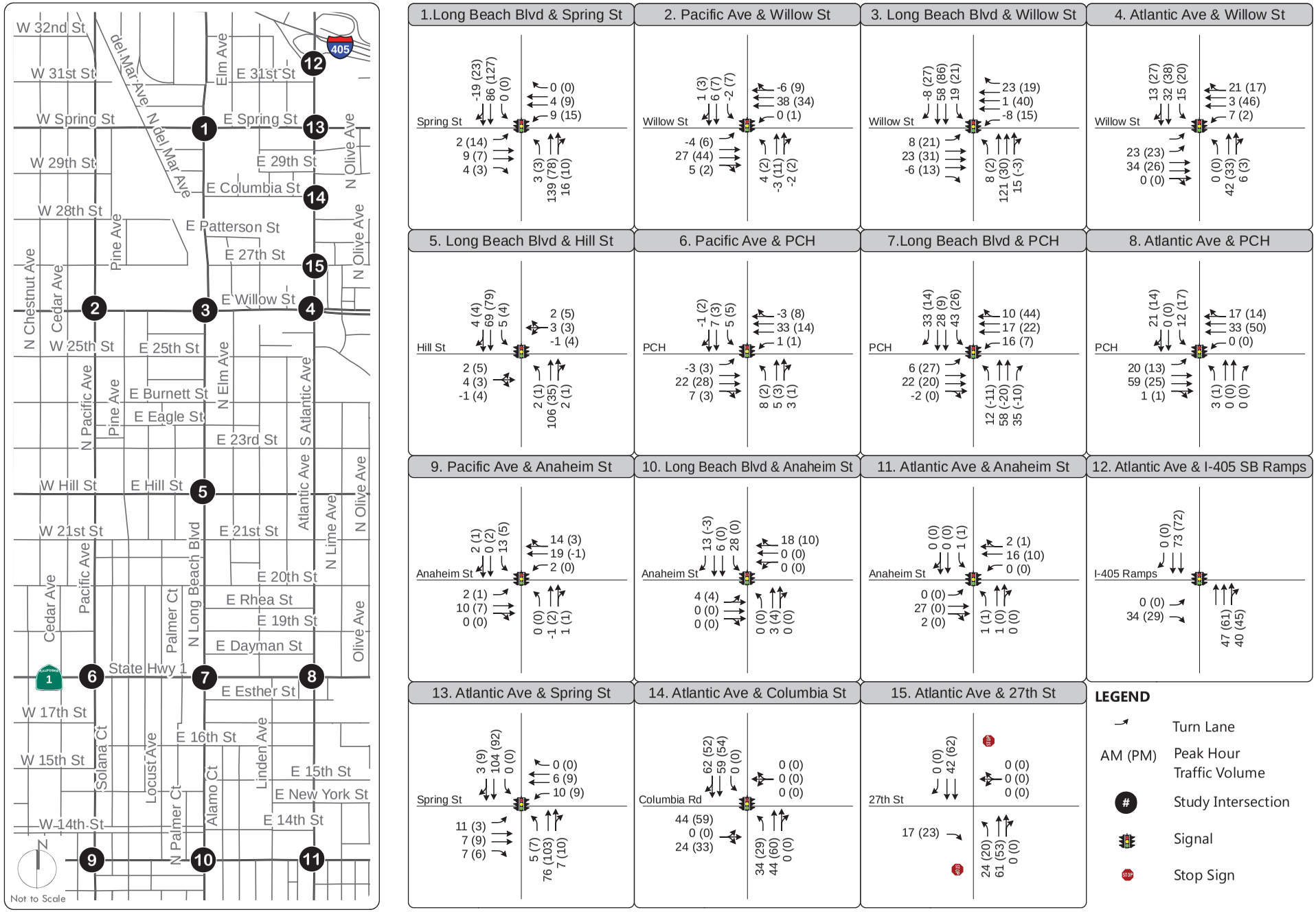
The project trip distribution reflects the likely approach and departure routes to the projects site, as determined through multiple sources such as the location of complementary land uses and existing traffic volumes on study roadways. Additionally, the 2010 Longitudinal Employer-Household Dynamics Origin Destination Employment Statistics were analyzed for the study area, which provide insight into local travel patterns. Trip distribution was assumed at a district level with each district containing a unique project trip distribution. All districts used similar assumptions for regional trip distribution and differences in distribution was typically based off geographic location relative to regional facilities.

TRIP ASSIGNMENT

Based on the trip generation and trip distribution estimates developed and described above, project trips were assigned to the study area roadway network by district. The assignment of "project only" trips for the development is shown on Figure 7. Please note that some movements show negative growth in trips due to the installation of parklets that close roadway access. Traffic volumes from roadways proposed to be converted to parklets were redistributed to the study intersections since motorists will need to find a new route to access each closed location. It should be noted that the redistributed trips associated with the parklets generally don't affect the operations of the study intersections given the relatively low contribution of traffic associated with those roadway closures. Existing Plus Project volumes are shown on Figure 8.

INTERSECTION OPERATIONS

Intersection LOS results for Existing Plus Project Conditions are summarized in Table 4. LOS sheets are provided in Appendix B. As shown in Table 4, most of the study intersections will continue to operate at LOS D or better, an acceptable level, except for the Atlantic Avenue & Spring Street intersection, which will operate at LOS E during the PM peak hour.



FEHR PEERS

PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

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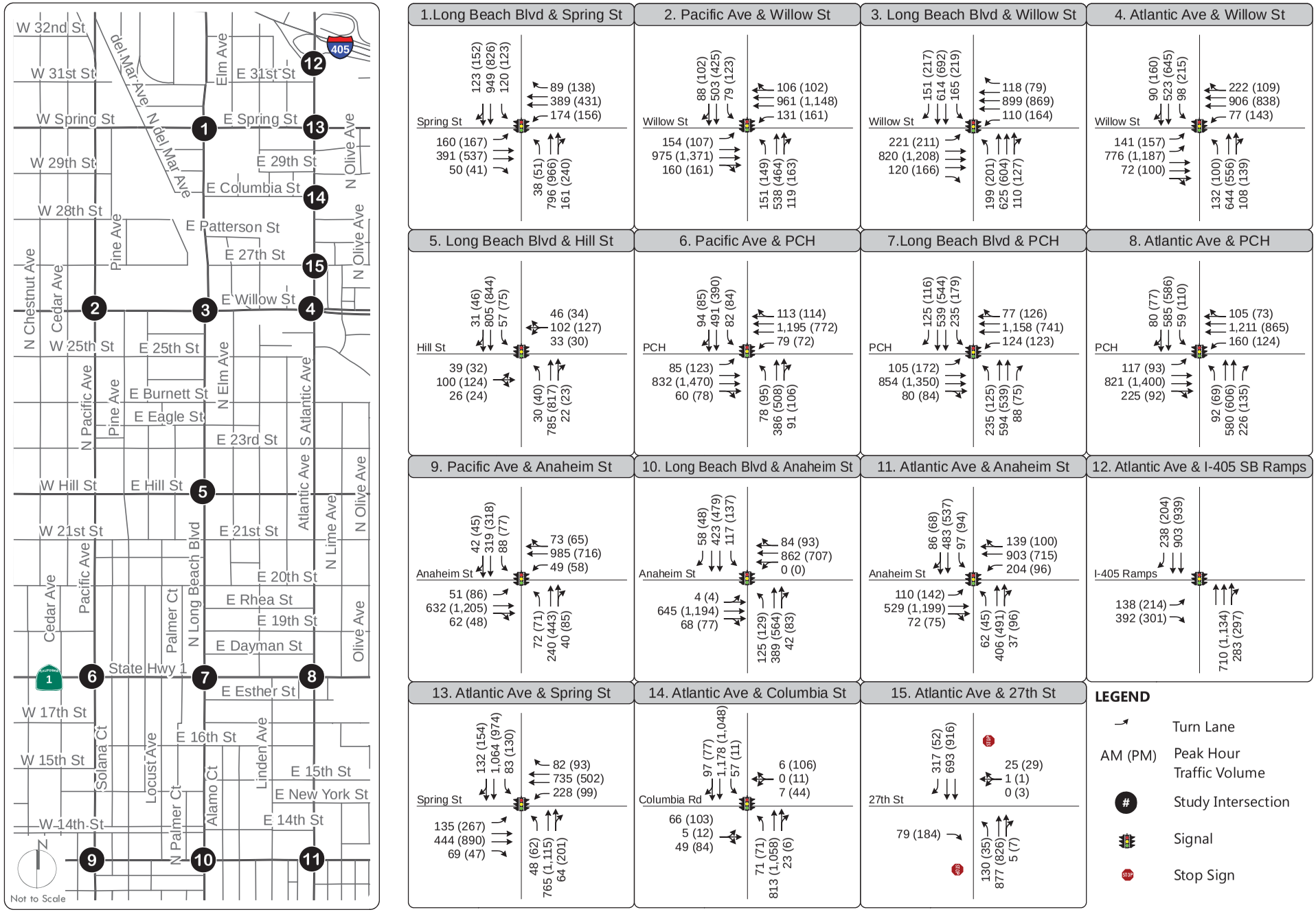
FIGURE 7



EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

FEHR PEERS

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FIGURE 8

**TABLE 4 INTERSECTION LEVEL OF SERVICE
EXISTING (2014) PLUS PROJECT CONDITIONS**

Intersection	Control	AM Peak		PM Peak	
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS
1. Long Beach Blvd & Spring St	Signal	0.705	C	0.819	D
2. Pacific Ave & Willow St	Signal	0.698	B	0.793	C
3. Long Beach Blvd & Willow St	Signal	0.742	C	0.796	C
4. Atlantic Ave & Willow St	Signal	0.680	B	0.809	D
5. Long Beach Blvd & Hill St	Signal	0.525	A	0.549	A
6. Pacific Ave & PCH	Signal	0.657	B	0.712	C
7. Long Beach Blvd & PCH	Signal	0.755	C	0.756	C
8. Atlantic Ave & PCH	Signal	0.713	C	0.746	C
9. Pacific Ave & Anaheim St	Signal	0.605	B	0.741	C
10. Long Beach Blvd & Anaheim St	Signal	0.510	A	0.653	B
11. Atlantic Ave & Anaheim St	Signal	0.711	C	0.800	D
12. Atlantic Ave & I-405 SB Ramps	Signal	0.627	B	0.586	A
13. Atlantic Ave & Spring St	Signal	0.818	D	0.933	E
14. Atlantic Ave & Columbia St	Signal	0.622	B	0.661	B
15. Atlantic Ave & 27th St	Side-Street Stop	15.0	C	21.6	C

Notes:
1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.
2. Delay for unsignalized intersections based on application of Highway Capacity Methodology using Synchro software. Delay reported is the worst-case approach delay.

Source: Fehr & Peers, 2014

INTERSECTION IMPACTS

Significance Criteria

The following level of service significance criteria was employed to determine if the project causes significant traffic impacts to the study area. The criteria are consistent with the City of Long Beach's Mobility Element level of service policy and the Los Angeles County CMP Guidelines.

A significant impact would occur at a study intersection when the project-related traffic causes:

- A signalized intersection to degrade from an acceptable LOS D or better to LOS E or LOS F, or
- The V/C ratio to increase by 0.02 or more at a signalized intersection that operates at LOS E or LOS F, or
- Causes an unsignalized intersection operating at LOS D or better to degrade to LOS E or LOS F and the intersection satisfies the Manual for Uniform Traffic Control Devices (MUTCD) Peak Hour Volume Warrant for Traffic Signal Installation, or
- Adds traffic to an unsignalized intersection operating at an unacceptable LOS E or LOS F such that it satisfies the MUTCD Peak Hour Volume Warrant for traffic signal installation.

Impact Assessment

As shown in Table 5, the addition of project traffic will cause a significant impact at one intersection. The LOS at Atlantic Avenue & Spring Street will degrade from LOS D to LOS E in the PM Peak Hour.

TABLE 5 EXISTING (2014) PLUS PROJECT SIGNIFICANT IMPACTS

Intersection	Peak Hour	Existing (2014) No Project		Existing (2014) Plus Project			Significant Impact?
		V/C[1]	LOS	V/C[1]	LOS	Project Change	
13. Atlantic Ave & Spring St	PM	0.889	D	0.933	E	0.044	Yes

Notes:

1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.

Source: Fehr & Peers, 2014

As previously discussed, the proposed parklet closures would cause motorists to find a new route to access development along the proposed closures. This was accounted for by shifting traffic volumes from the proposed parklet to adjacent study intersections along Long Beach Boulevard. Given the relatively low peak hour traffic volumes on the proposed parklets and the shift in traffic volumes to adjacent intersections along the corridor, the redistribution of these trips is negligible when considering impacts relative to the new trips associated with the proposed land use, as shown in Table 6. For the Existing (2014) Plus Project scenario, most intersections experience little to no impact on V/C ratio or delay and no changes in LOS.

TABLE 6 EXISTING (2014) PLUS PROJECT: NO PARKLETS AND WITH PARKLETS COMPARISON

Intersection	Peak Hour	No Parklets		With Parklets		
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS	Project Change
1. Long Beach Blvd & Spring St	AM	0.705	C	0.705	C	0
	PM	0.819	D	0.819	D	0
2. Pacific Ave & Willow St	AM	0.698	B	0.698	B	0
	PM	0.793	C	0.793	C	0
3. Long Beach Blvd & Willow St	AM	0.734	C	0.742	C	0.008
	PM	0.787	C	0.796	C	0.009
4. Atlantic Ave & Willow St	AM	0.68	B	0.68	B	0
	PM	0.809	D	0.809	D	0
5. Long Beach Blvd & Hill St	AM	0.5	A	0.525	A	0.025
	PM	0.542	A	0.549	A	0.007
6. Pacific Ave & PCH	AM	0.657	B	0.657	B	0
	PM	0.712	C	0.712	C	0
7. Long Beach Blvd & PCH	AM	0.759	C	0.755	C	-0.004
	PM	0.732	C	0.756	C	0.024
8. Atlantic Ave & PCH	AM	0.713	C	0.713	C	0
	PM	0.746	C	0.746	C	0
9. Pacific Ave & Anaheim St	AM	0.605	B	0.605	B	0
	PM	0.741	C	0.741	C	0
10. Long Beach Blvd & Anaheim St	AM	0.534	A	0.51	A	-0.024
	PM	0.666	B	0.653	B	-0.013
11. Atlantic Ave & Anaheim St	AM	0.711	C	0.711	C	0
	PM	0.8	D	0.8	D	0
	AM	0.627	B	0.627	B	0

TABLE 6 EXISTING (2014) PLUS PROJECT: NO PARKLETS AND WITH PARKLETS COMPARISON

Intersection	Peak Hour	No Parklets		With Parklets		
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS	Project Change
12. Atlantic Ave & I-405 SB Ramps	PM	0.586	A	0.586	A	0
13. Atlantic Ave & Spring St	AM	0.818	D	0.818	D	0
	PM	0.933	E	0.933	E	0
14. Atlantic Ave & Columbia St	AM	0.622	B	0.622	B	0
	PM	0.661	B	0.661	B	0
15. Atlantic Ave & 27th St	AM	15	C	15	C	0
	PM	21.6	C	21.6	C	0

Notes:

1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.
2. Delay for unsignalized intersections based on application of Highway Capacity Methodology using Synchro software. Delay reported is the worst-case approach delay.

Source: Fehr & Peers, 2015

5. CUMULATIVE YEAR (2035) NO PROJECT TRAFFIC CONDITIONS

This chapter evaluates the Cumulative Year (2035) No Project conditions. This scenario includes the addition of ambient growth from Existing volumes to Year 2035.

TRAFFIC FORECASTS

Future volumes for Cumulative Year (2035) Conditions were developed using a 0.71 percent per year growth rate consistent with the Los Angeles County CMP Guidelines. The growth rate accounts for pending and approved projects within the City of Long Beach as well as regional growth anticipated by Year 2035. Cumulative Year (2035) No Project AM and PM peak hour traffic volumes for study intersections are shown on Figure 9.

Please note, for this assessment, no intersection capacity enhancement projects were assumed to occur prior to Year 2035.

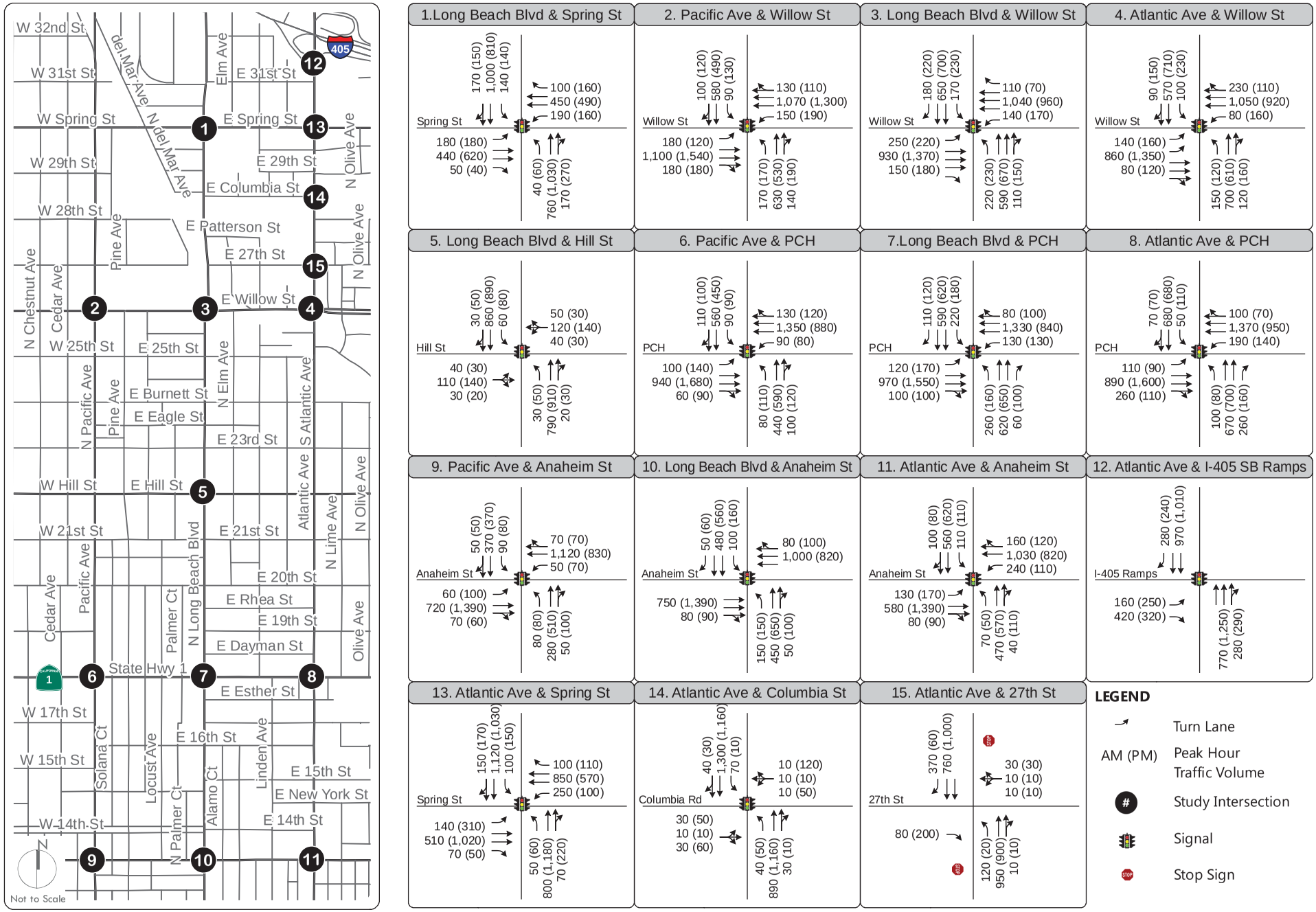
INTERSECTION OPERATIONS

Intersection LOS results for Cumulative Year No Project Conditions are summarized in Table 7. LOS sheets are provided in Appendix B. The following intersections are expected to operate at LOS E or F:

11. Atlantic Ave & Anaheim (PM)

13. Atlantic Ave & Spring St (PM)

15. Atlantic Ave & 27th St (AM and PM)



CUMULATIVE YEAR (2035) NO PROJECT PEAK HOUR TRAFFIC VOLUMES

FEHR PEERS

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FIGURE 9

TABLE 7 INTERSECTION LEVEL OF SERVICE
CUMULATIVE YEAR (2035) NO PROJECT CONDITIONS

Intersection	Control	AM Peak		PM Peak	
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS
1. Long Beach Blvd & Spring St	Signal	0.747	C	0.887	D
2. Pacific Ave & Willow St	Signal	0.781	C	0.883	D
3. Long Beach Blvd & Willow St	Signal	0.814	D	0.854	D
4. Atlantic Ave & Willow St	Signal	0.734	C	0.891	D
5. Long Beach Blvd & Hill St	Signal	0.553	A	0.588	A
6. Pacific Ave & PCH	Signal	0.730	C	0.797	C
7. Long Beach Blvd & PCH	Signal	0.816	D	0.841	D
8. Atlantic Ave & PCH	Signal	0.772	C	0.831	D
9. Pacific Ave & Anaheim St	Signal	0.691	B	0.837	D
10. Long Beach Blvd & Anaheim St	Signal	0.569	A	0.743	C
11. Atlantic Ave & Anaheim St	Signal	0.803	D	0.912	E
12. Atlantic Ave & I-405 SB Ramps	Signal	0.666	B	0.616	B
13. Atlantic Ave & Spring St	Signal	0.881	D	1.012	F
14. Atlantic Ave & Columbia St	Signal	0.594	A	0.647	B
15. Atlantic Ave & 27th St	Side-Street Stop	>50.0	F	>50.0	F

Notes:
1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.
2. Delay for unsignalized intersections based on application of Highway Capacity Methodology using Synchro software. Delay reported is the worst-case approach delay.

Source: Fehr & Peers, 2014

6. CUMULATIVE YEAR (2035) PLUS PROJECT TRAFFIC CONDITIONS

This chapter evaluates the Cumulative Year (2035) Plus Project conditions. This scenario analyzes the intersection conditions with the addition of ambient growth (0.71 percent per year) to Cumulative Year (2035) and traffic generated from the proposed project.

TRAFFIC FORECASTS

To estimate Cumulative Year Plus Project traffic volumes, the project-only volumes were added to Cumulative Year No Project traffic volumes based on the trip generation and trip distribution assumptions summarized previously. The resulting Cumulative Year Plus Project traffic volumes are shown on Figure 10.

INTERSECTION OPERATIONS

Intersection LOS results for Cumulative Year Plus Project Conditions are summarized in Table 8. LOS sheets are provided in Appendix B. The following intersections will perform at LOS E or F under the Cumulative Year Plus Project scenario:

1. Long Beach Blvd & Spring St (PM)

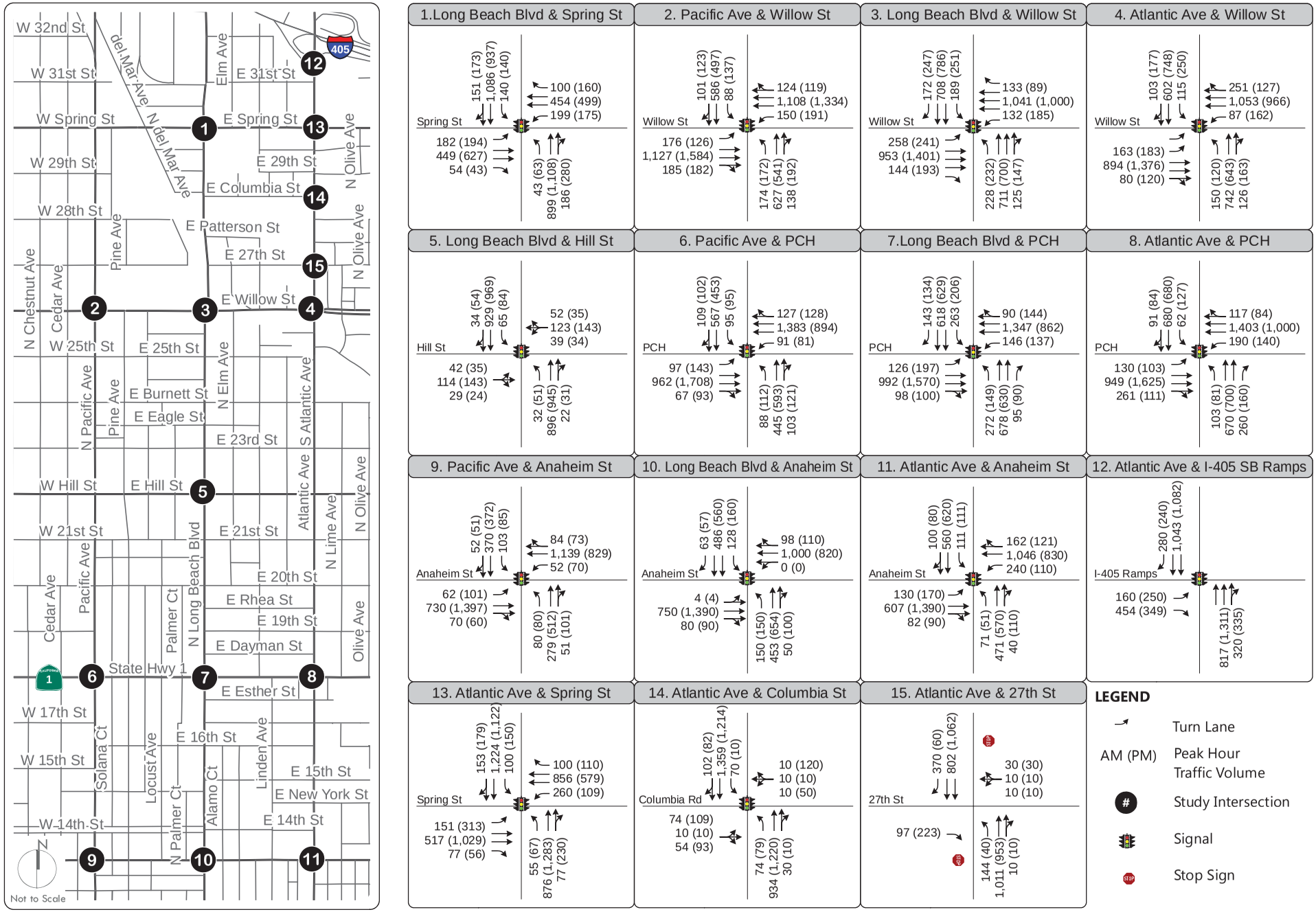
2. Pacific Ave & Willow St (PM)

4. Atlantic Ave & Willow St (PM)

11. Atlantic Ave & Anaheim St (PM)

13. Atlantic Ave & Spring St (AM and PM)

15. Atlantic Ave & 27th St (AM and PM)



CUMULATIVE YEAR (2035) PLUS PROJECT PEAK HOUR VOLUMES

FEHR PEERS

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FIGURE 10

TABLE 8 INTERSECTION LEVEL OF SERVICE
CUMULATIVE YEAR (2035) PLUS PROJECT CONDITIONS

Intersection	Control	AM Peak		PM Peak	
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS
1. Long Beach Blvd & Spring St	Signal	0.791	C	0.927	E
2. Pacific Ave & Willow St	Signal	0.790	C	0.902	E
3. Long Beach Blvd & Willow St	Signal	0.842	D	0.898	D
4. Atlantic Ave & Willow St	Signal	0.771	C	0.921	E
5. Long Beach Blvd & Hill St	Signal	0.587	A	0.612	B
6. Pacific Ave & PCH	Signal	0.741	C	0.808	D
7. Long Beach Blvd & PCH	Signal	0.854	D	0.859	D
8. Atlantic Ave & PCH	Signal	0.803	D	0.847	D
9. Pacific Ave & Anaheim St	Signal	0.703	C	0.844	D
10. Long Beach Blvd & Anaheim St	Signal	0.577	A	0.745	C
11. Atlantic Ave & Anaheim St	Signal	0.809	D	0.913	E
12. Atlantic Ave & I-405 SB Ramps	Signal	0.710	C	0.656	B
13. Atlantic Ave & Spring St	Signal	0.927	E	1.056	F
14. Atlantic Ave & Columbia St	Signal	0.695	B	0.735	C
15. Atlantic Ave & 27th St	Side-Street Stop	>50.0	F	>50.0	F

Notes:
1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.
2. Delay for unsignalized intersections based on application of Highway Capacity Methodology using Synchro software. Delay reported is the worst-case approach delay.

Source: Fehr & Peers, 2014

INTERSECTION IMPACTS

As shown in Table 9, the addition of project traffic will cause a significant impact at 4 signalized intersections in the Cumulative Year (2035). In addition at Atlantic Avenue & 27th Street, the PM peak hour volumes satisfy the MUTCD Peak Hour Volume Warrant for Traffic Signal Installation (provided in Appendix C).

TABLE 9 CUMULATIVE YEAR (2035) PLUS PROJECT SIGNIFICANT IMPACTS

Intersection	Peak Hour	Cumulative Year (2035) No Project		Cumulative Year (2035) Plus Project			Significant Impact?
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	V/C[1] or Delay[2]	Project Change	
1. Long Beach Blvd & Spring St	PM	0.887	D	0.927	E	0.040	Yes
2. Pacific Ave & Willow St	PM	0.883	D	0.902	E	0.019	Yes
4. Atlantic Ave & Willow St	PM	0.891	D	0.921	E	0.030	Yes
11. Atlantic Ave & Anaheim St	PM	0.912	E	0.913	E	0.001	No
13. Atlantic Ave & Spring St	AM PM	0.881 1.012	D F	0.927 1.056	E F	0.046 0.044	Yes
15. Atlantic Ave & 27th St	AM PM	>50.0 >50.0	F F	>50.0 >50.0	F F	>50.0 >50.0	Yes

Notes:
1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.
2. Delay for unsignalized intersections based on application of Highway Capacity Methodology using Synchro software. Delay reported is the worst-case approach delay.

Source: Fehr & Peers, 2014

As previously discussed, the proposed parklet closures would cause motorists to find a new route to access development along the proposed closures. This was accounted for by shifting traffic volumes from the proposed parklet to adjacent study intersections along Long Beach Boulevard. Given the relatively low peak hour traffic volumes on the proposed streetlets and the shift in traffic volumes to adjacent intersections along the corridor, the redistribution of these trips is negligible when considering impacts relative to the new trips associated with the proposed land use, as shown in Table 10. For the Cumulative Year (2035) Plus Project scenario, most intersections experience little to no impact on V/C ratio or delay. LOS is only affected in two instances. With parklets LOS drops from A to B at Long Beach Boulevard and Hill Street in the PM Peak Hour, and improves from B to A at Long Beach Boulevard and Anaheim Street in the AM Peak Hour.

TABLE 10 CUMULATIVE YEAR (2035) PLUS PROJECT: NO PARKLETS AND WITH PARKLETS COMPARISON

Intersection	Peak Hour	No Parklets		With Parklets		
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS	Project Change
1. Long Beach Blvd & Spring St	AM	0.791	C	0.791	C	0
	PM	0.927	E	0.927	E	0
2. Pacific Ave & Willow St	AM	0.79	C	0.79	C	0
	PM	0.902	E	0.902	E	0
3. Long Beach Blvd & Willow St	AM	0.834	D	0.842	D	0.008
	PM	0.889	D	0.898	D	0.009
4. Atlantic Ave & Willow St	AM	0.771	C	0.771	C	0
	PM	0.921	E	0.921	E	0
5. Long Beach Blvd & Hill St	AM	0.563	A	0.587	A	0.024
	PM	0.586	A	0.612	B	0.026
6. Pacific Ave & PCH	AM	0.741	C	0.741	C	0
	PM	0.808	D	0.808	D	0
7. Long Beach Blvd & PCH	AM	0.85	D	0.854	D	0.004
	PM	0.835	D	0.859	D	0.024
8. Atlantic Ave & PCH	AM	0.803	D	0.803	D	0
	PM	0.847	D	0.847	D	0
9. Pacific Ave & Anaheim St	AM	0.703	C	0.703	C	0
	PM	0.844	D	0.844	D	0
10. Long Beach Blvd & Anaheim St	AM	0.601	B	0.577	A	-0.024
	PM	0.757	C	0.745	C	-0.012
11. Atlantic Ave & Anaheim St	AM	0.809	D	0.809	D	0
	PM	0.913	E	0.913	E	0
12. Atlantic Ave & I-405 SB Ramps	AM	0.71	C	0.71	C	0
	PM	0.656	B	0.656	B	0

TABLE 10 CUMULATIVE YEAR (2035) PLUS PROJECT: NO PARKLETS AND WITH PARKLETS COMPARISON

Intersection	Peak Hour	No Parklets		With Parklets		
		V/C[1] or Delay[2]	LOS	V/C[1] or Delay[2]	LOS	Project Change
13. Atlantic Ave & Spring St	AM	0.927	E	0.927	E	0
	PM	1.056	F	1.056	F	0
14. Atlantic Ave & Columbia St	AM	0.695	B	0.695	B	0
	PM	0.735	C	0.735	C	0
15. Atlantic Ave & 27th St	AM	>50.0	F	>50.0	F	0
	PM	>50.0	F	>50.0	F	0

Notes:

3. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.
4. Delay for unsignalized intersections based on application of Highway Capacity Methodology using Synchro software. Delay reported is the worst-case approach delay.

Source: Fehr & Peers, 2015

7. CONGESTION MANAGEMENT PROGRAM ANALYSIS

This section presents an analysis of potential impacts on the regional transportation system. This analysis was conducted in accordance with the procedures outlined in *Congestion Management Program for Los Angeles County* (CMP) (Metro, 2010). The CMP requires that, when an environmental impact report is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities.

REGIONAL TRAFFIC IMPACT ANALYSIS

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic.

Based on this requirement, the only CMP location that requires assessment is the intersection of Pacific Coast Highway at Orange Avenue.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when a certain threshold is exceeded. If the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$), a significant impact would occur. If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$).

DATA COLLECTION

Cities are required to collect counts every other year at CMP monitoring stations. The City of Long Beach provided Fehr & Peers with counts collected at Pacific Coast Highway at Orange Avenue from June 3, 2015.

CMP ASSESSMENT

The Proposed Project is expected to add approximately 121 AM peak hour and 106 PM peak hour trips to the Pacific Coast Highway/Orange Avenue intersection. A 10.1% growth rate was applied to the volumes to forecast Cumulative Year (2035) No Project volumes, consistent with the CMP Impact Analysis Guidelines to grow volumes from 2015 to 2035.

The CMP intersection operates at LOS C or better in both Existing Conditions and Cumulative Conditions analysis. The Proposed Project's vehicle trip contribution to this intersection would not cause the level of service to worsen; the intersection would continue to operate at LOS C or better, as shown in Table 11.

TABLE 11 CMP INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Scenario	AM Peak		PM Peak	
		V/C[1]	LOS	V/C[1]	LOS
Pacific Coast Highway & Orange Avenue	Existing (2015)	0.634	B	0.712	C
	Existing (2015) Plus Project	0.645	B	0.721	C
	Cumulative (2035) No Project	0.699	B	0.774	C
	Cumulative (2035) Plus Project	0.709	C	0.783	C

Notes:
1. V/C for signalized intersections based on application of Intersection Capacity Utilization methodology using Traffix software. V/C = Volume / Capacity Ratio.

Source: Fehr & Peers, 2015

Therefore, the Proposed Project would not result in the Pacific Coast Highway/Orange Avenue intersection exceeding county congestion management agency service standards.

8. MITIGATION MEASURES

This chapter provides a summary of the key findings and project impacts for each scenario analyzed, and recommended mitigation measures to mitigate these impacts.

SUMMARY OF PROJECT IMPACTS

As stated previously, the following level of service significance criteria was employed to determine if the project causes significant traffic impacts to the study area. The criteria are consistent with the City of Long Beach's Mobility Element level of service policy and the Los Angeles County CMP Guidelines.

A significant impact would occur at a study intersection when the project-related traffic causes:

- A signalized intersection to degrade from an acceptable LOS D or better to LOS E or LOS F, or
- The V/C ratio to increase by 0.02 or more at a signalized intersection that operates at LOS E or LOS F, or
- Causes an unsignalized intersection operating at LOS D or better to degrade to LOS E or LOS F and the intersection satisfies the Manual for Uniform Traffic Control Devices (MUTCD) Peak Hour Volume Warrant for Traffic Signal Installation, or
- Adds traffic to an unsignalized intersection operating at an unacceptable LOS E or LOS F such that it satisfies the MUTCD Peak Hour Volume Warrant for traffic signal installation.

Based upon the significance criteria identified, the addition of the project will significantly impact the following locations under each analyzed scenario:

Existing (2014) Plus Project Conditions

- Atlantic Avenue & Spring Street – In the PM peak hour the level of service degrades from LOS D to E.

Cumulative Year (2035) Plus Project Conditions

- Long Beach Boulevard & Spring Street – In the PM peak hour the level of service degrades from LOS D to E.
- Pacific Avenue & Willow Street – In the PM peak hour the level of service degrades from LOS D to E.
- Atlantic Avenue & Willow Street – In the PM peak hour the level of service degrades from LOS D to E.

- Atlantic Avenue & Spring Street – In the AM peak hour, the level of service degrades from LOS D to LOS E. In the PM peak hour level of service remains at LOS F and the V/C ratio increases by 0.044.
- Atlantic Avenue & 27th Street – In the AM and PM peak hours the level of service is LOS F and the MUTCD Peak Hour Volume Warrant for traffic signal installation is met.

RECOMMENDED MITIGATION MEASURES

Improvement measures were developed to minimize the impact of the Project on the study intersections. Mitigation measures were developed in order to bring project operations back to acceptable or pre-project conditions. Implementing the mitigation measures described below, the "with project" scenarios would no longer result in a significant impact. A description of the recommended mitigation measures is provided below. LOS results for mitigation measures are provided in Appendix D.

Existing (2014) Plus Project Conditions

- Atlantic Avenue & Spring Street – PM peak hour
    - Improve the northbound approach by modifying the shared through-right lane to an exclusive through lane and an addition of an exclusive right-turn lane.
    - Implementation of this measure would improve the intersection operations to a V/C ratio of 0.870 and LOS D.
    - The intersection is currently built out to capacity and would require right-of-way acquisition by the City.

Cumulative Year (2035) Plus Project Conditions

- Long Beach Boulevard & Spring Street – PM peak hour
    - Improve the northbound approach by modifying the shared through-right lane to an exclusive through lane and an addition of an exclusive right-turn lane.
    - Given the 74' cross section of Long Beach Boulevard, this measure could be completed with restriping of the approach.
    - Implementation of this measure would improve the intersection operations to a V/C ratio of 0.839 and LOS D.
- Pacific Avenue & Willow Street – PM peak hour
    - Improve the northbound approach by modifying the shared through-right lane to an exclusive through lane and an addition of an exclusive right-turn lane.
    - Given the 76' cross section of Long Beach Boulevard, this measure could be completed with restriping of the approach.

  - Implementation of this measure would improve the intersection operations to a V/C ratio of 0.889 and LOS D.
- Atlantic Avenue & Willow Street – PM peak hour
  - Improve the northbound approach by modifying the shared through-right lane to an exclusive through lane and an addition of an exclusive right-turn lane.
  - Given the 50' cross section of Atlantic Avenue, this measure could be completed with restriping of the approach.
  - Implementation would improve PM peak hour operations to a V/C ratio of 0.877 and LOS D.
- Atlantic Avenue & Spring Street – AM and PM peak hour
  - Improve the northbound approach by modifying the shared through-right lane to an exclusive through lane and an addition of an exclusive right-turn lane, as previously recommended under Existing Plus Project mitigation measures. Also requires improving the southbound approach by modifying the shared through-right lane to an exclusive through lane and an addition of an exclusive right-turn lane.
  - Implementation would improve AM peak hour operations to a V/C ratio of 0.879 and LOS D and PM peak hour operations to a V/C ratio of 0.984 and LOS E.
- Atlantic Avenue & 27th Street – AM and PM peak hour
  - Construct a traffic signal at the intersection.
  - Implementation would improve AM peak hour operations to a V/C ratio of 0.441 and LOS A and PM peak hour operations to a V/C ratio of 0.534 and LOS A.

APPENDIX A: TRAFFIC COUNTS

ITM Peak Hour Summary

Prepared by:

NDS

Long Beach Blvd and Spring St , City of Long Beach

Date: 5/17/2012

Day: Thursday

Project #: CA12_5192_001

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Long Beach Blvd

	Lanes 0	2	1		
AM	142	863	120	904	AM
NOON	0	0	0	0	NOON
PM	129	699	123	1179	PM

Eastbound Approach

Spring St

Lanes	AM	NOON	PM
	562	0	599
1	158	0	153
2	382	0	530
1	46	0	38

Westbound Approach

Lanes	AM	NOON	PM
1	89	0	138
2	385	0	422
1	165	0	141
	647	0	883

CONTROL

Signalized

Northbound Approach

AM	1074	35	657	145	AM
NOON	0	0	0	0	NOON
PM	878	48	888	230	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	1125	904	AM
	0	0	NOON
	951	1179	PM

West Leg AM	NOON	PM		East Leg AM	NOON	PM
562	0	599		639	0	701
586	0	721		647	0	883

	South Leg	
AM	1074	837
NOON	0	0
PM	878	1166

Total Volume Per Leg

	North Leg
AM	2029
NOON	0
PM	2130

West Leg AM	NOON	PM		East Leg AM	NOON	PM
1148	0	1320		1286	0	1584

	South Leg
AM	1911
NOON	0
PM	2044

ITM Peak Hour Summary

Prepared by:

NDS

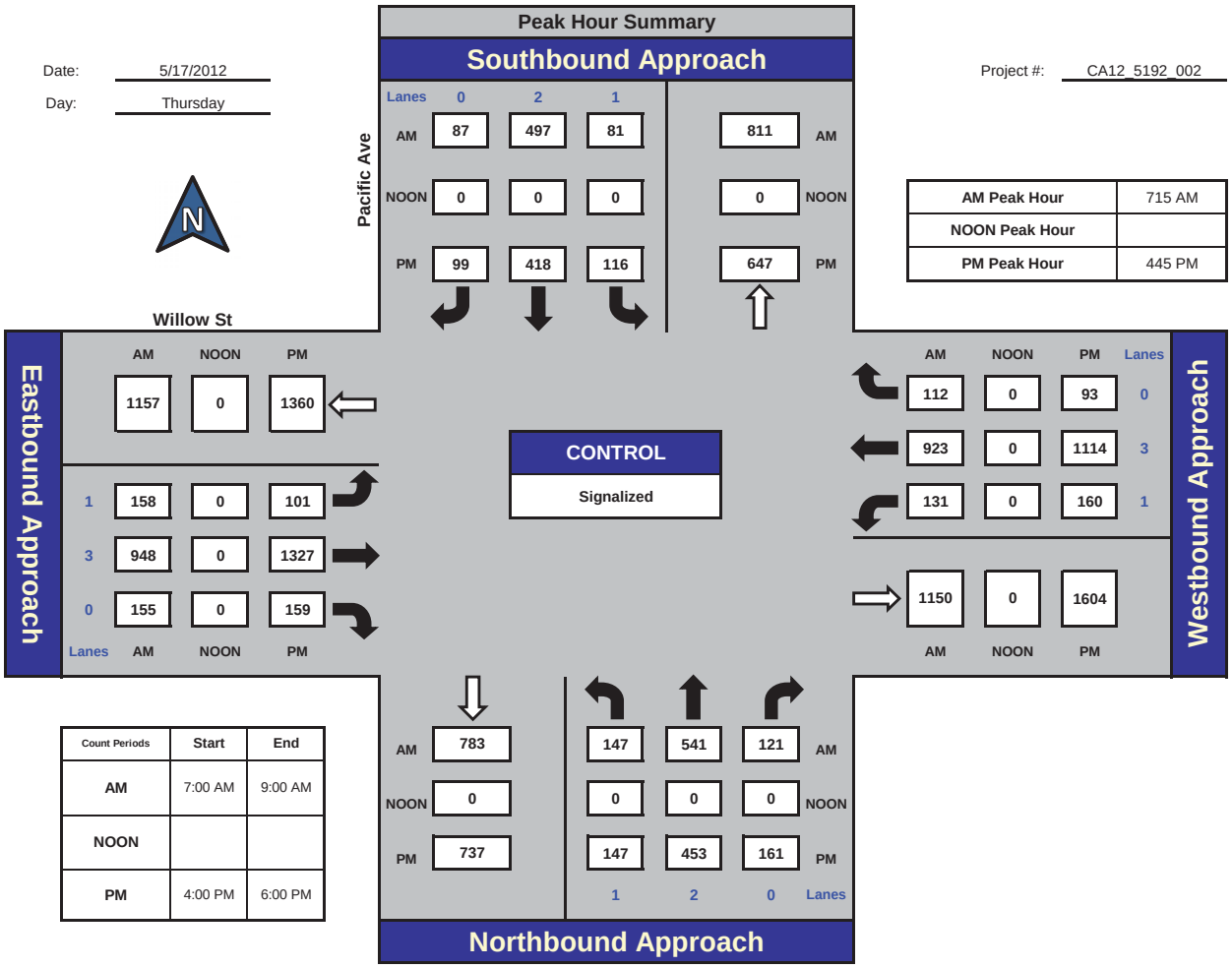
Pacific Ave and Willow St , City of Long Beach

Date: 5/17/2012

Day: Thursday

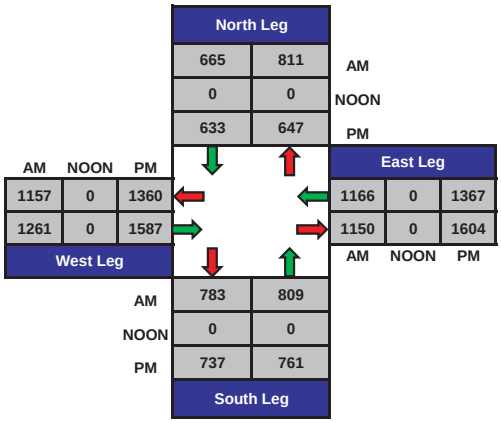
Project #: CA12_5192_002

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	445 PM

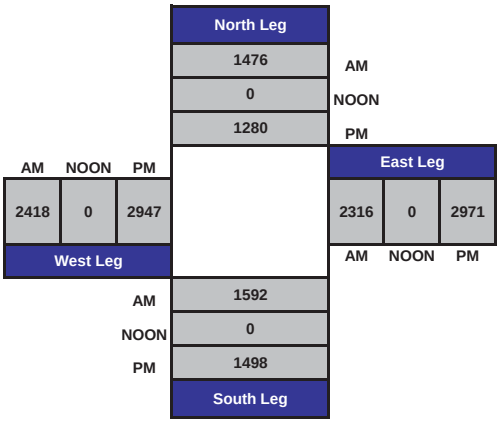


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

NDS

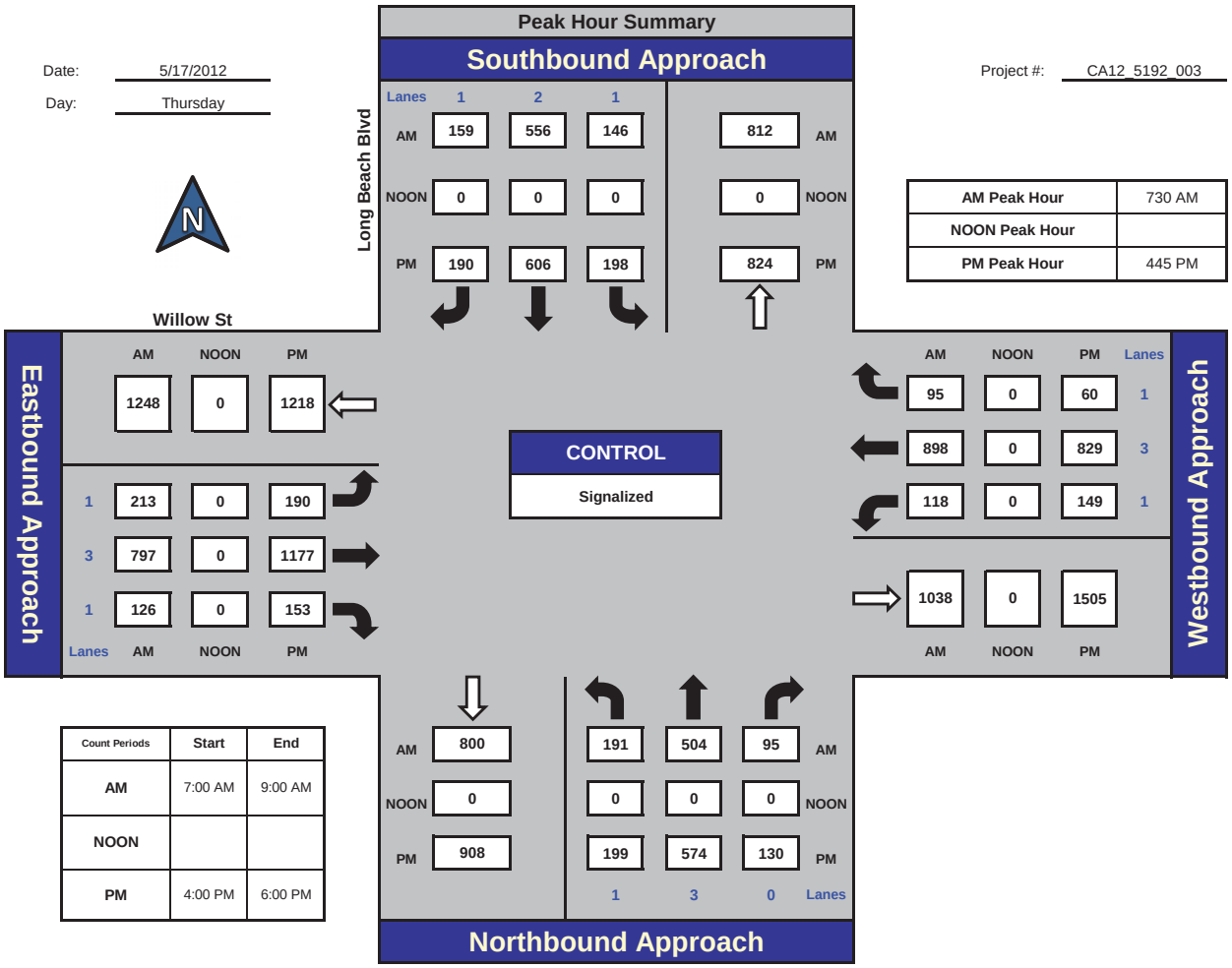
Long Beach Blvd and Willow St , City of Long Beach

Date: 5/17/2012

Day: Thursday

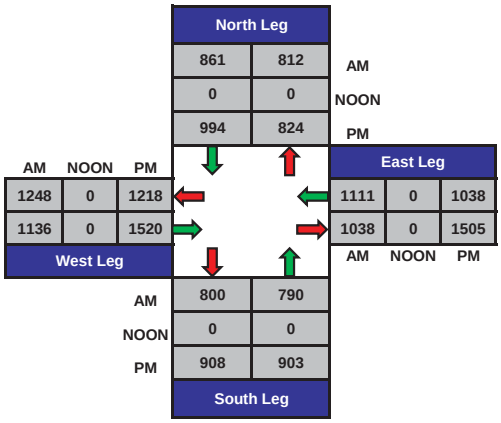
Project #: CA12_5192_003

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM

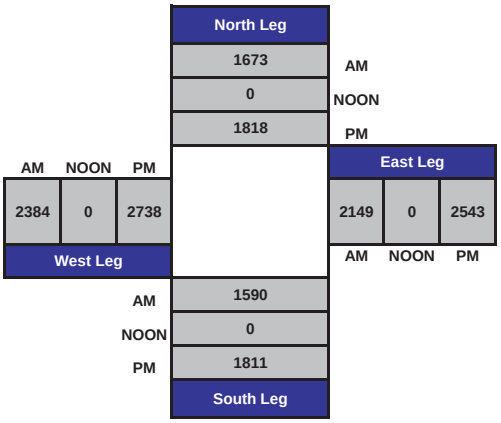


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

NDS

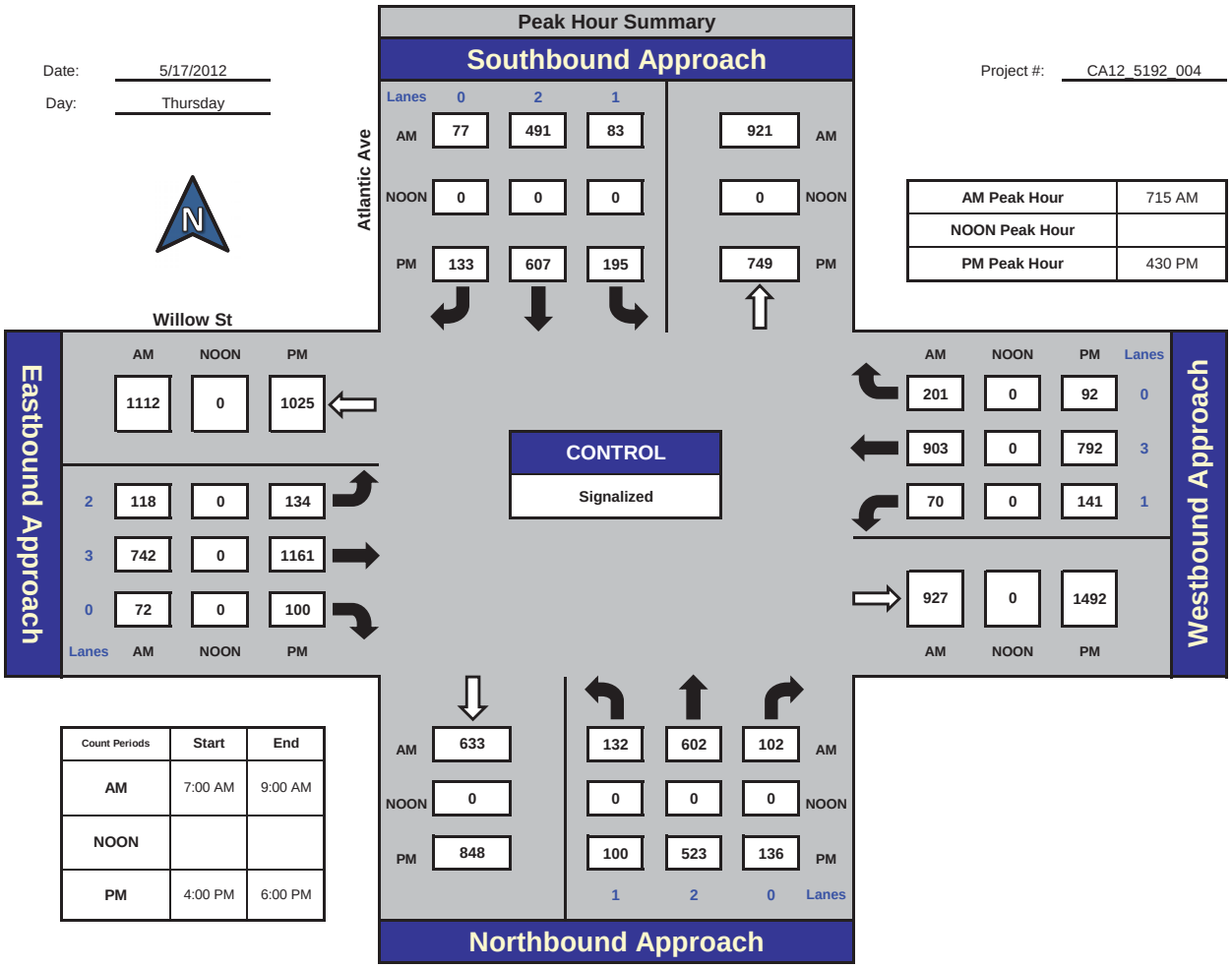
Atlantic Ave and Willow St , City of Long Beach

Date: 5/17/2012

Day: Thursday

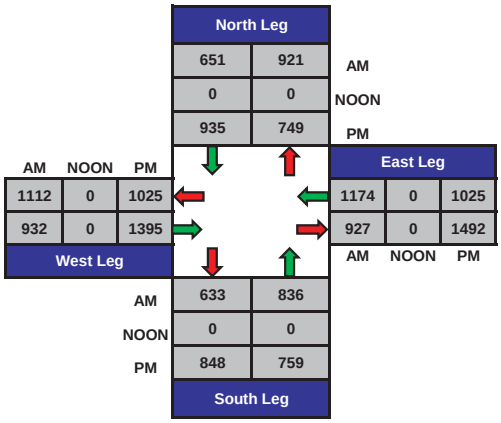
Project #: CA12_5192_004

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

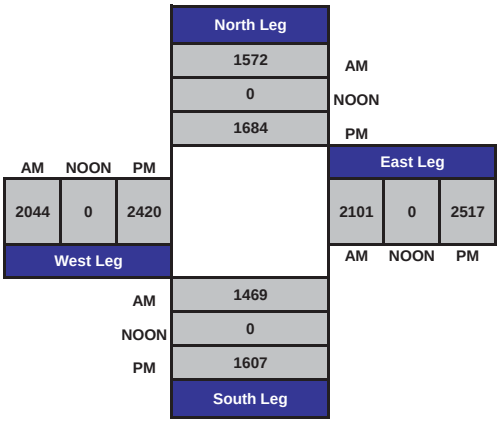


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

NDS

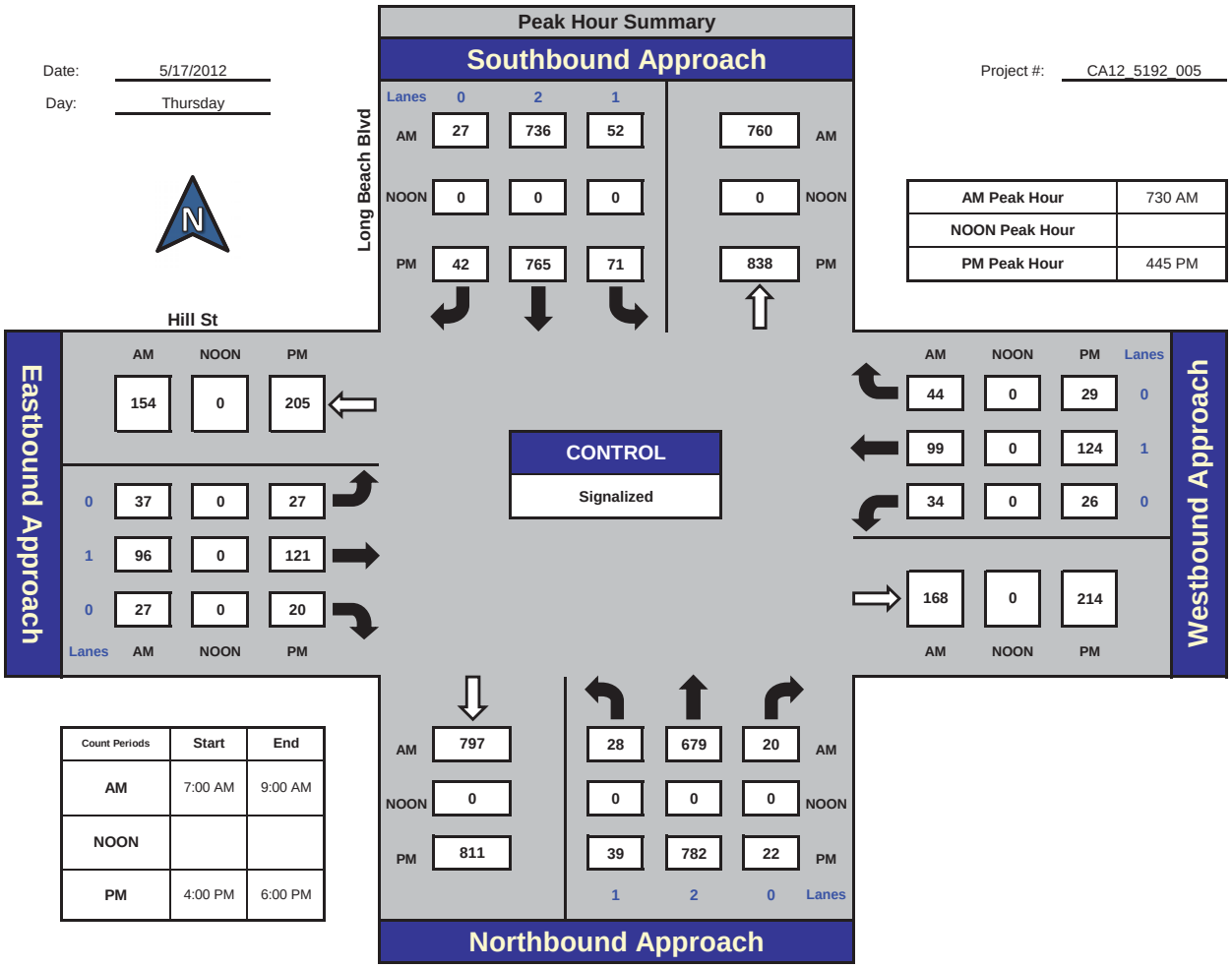
Long Beach Blvd and Hill St , City of Long Beach

Date: 5/17/2012

Day: Thursday

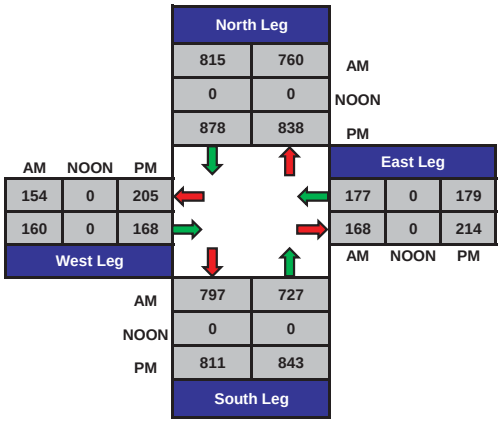
Project #: CA12_5192_005

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM

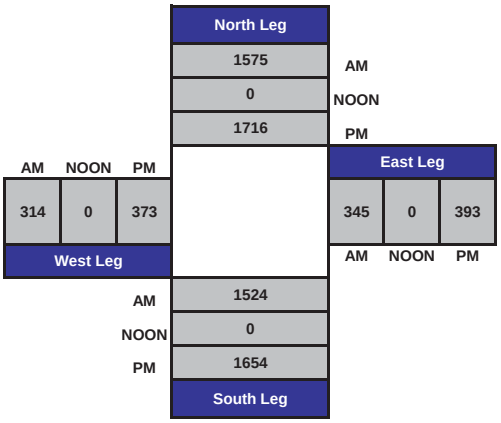


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

NDS

Pacific Ave and Pacific Coast Hwy , City of Long Beach

Date: 5/17/2012

Day: Thursday

Project #: CA12_5192_006

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach

Pacific Ave

Lanes	0	2	1		
AM	95	484	77	585	AM
NOON	0	0	0	0	NOON
PM	83	387	79	731	PM

Eastbound Approach

Pacific Coast Hwy

Lanes	AM	NOON	PM
	1327	0	934
1	88	0	120
3	810	0	1442
0	53	0	75

Westbound Approach

AM	NOON	PM	Lanes
116	0	106	0
1162	0	758	3
78	0	71	1
975	0	1626	

CONTROL

Signalized

Northbound Approach

AM	615	70	381	88	AM
NOON	0	0	0	0	NOON
PM	533	93	505	105	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	656	585	AM
	0	0	NOON
	549	731	PM

West Leg			East Leg		
AM	NOON	PM			
1327	0	934	1356	0	935
951	0	1637	975	0	1626
			AM	NOON	PM

	South Leg	
AM	615	539
NOON	0	0
PM	533	703

Total Volume Per Leg

	North Leg
AM	1241
NOON	0
PM	1280

West Leg			East Leg		
AM	NOON	PM			
2278	0	2571	2331	0	2561
			AM	NOON	PM

	South Leg
AM	1154
NOON	0
PM	1236

ITM Peak Hour Summary

Prepared by:

NDS

Long Beach Blvd and Pacific Coast Hwy , City of Long Beach

Date: 5/17/2012

Day: Thursday

Project #: CA12_5192_007

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	445 PM

Peak Hour Summary

Southbound Approach

Long Beach Blvd

Lanes	1	2	1		
AM	92	511	192	702	AM
NOON	0	0	0	0	NOON
PM	102	535	153	786	PM

Eastbound Approach

Pacific Coast Hwy

Lanes	AM	NOON	PM
	1456	0	957
1	99	0	145
3	832	0	1330
0	82	0	84

Westbound Approach

Lanes	AM	NOON	PM
0	67	0	82
3	1141	0	719
1	108	0	116
	1077	0	1568

CONTROL

Signalized

Northbound Approach

AM	701	223	536	53	AM
NOON	0	0	0	0	NOON
PM	735	136	559	85	PM
		1	2	1	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	795	702	AM
	0	0	NOON
	790	786	PM

West Leg			East Leg		
AM	NOON	PM			
1456	0	957	1316	0	917
1013	0	1559	1077	0	1568
			AM	NOON	PM

	South Leg	
AM	701	812
NOON	0	0
PM	735	780

Total Volume Per Leg

	North Leg
AM	1497
NOON	0
PM	1576

West Leg			East Leg		
AM	NOON	PM			
2469	0	2516	2393	0	2485
			AM	NOON	PM

	South Leg
AM	1513
NOON	0
PM	1515

ITM Peak Hour Summary

Prepared by:

NDS

Atlantic Ave and Pacific Coast Hwy , City of Long Beach

Date: 5/17/2012

Day: Thursday

Project #: CA12_5192_008

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach

Atlantic Ave

Lanes	0	2	1		
AM	59	585	47	765	AM
NOON	0	0	0	0	NOON
PM	63	586	93	745	PM

Eastbound Approach

Pacific Coast Hwy

Lanes	AM	NOON	PM
	1326	0	946
1	97	0	80
3	762	0	1375
0	224	0	91

Westbound Approach

Lanes	AM	NOON	PM
0	88	0	59
3	1178	0	815
1	160	0	124
	1035	0	1603

Northbound Approach

	1	2	1	Lanes
AM	969	89	580	226	AM
NOON	0	0	0	0	NOON
PM	801	68	606	135	PM

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	691	765	AM
	0	0	NOON
	742	745	PM

West Leg	AM	NOON	PM	East Leg	AM	NOON	PM
AM	1326	0	946	AM	1426	0	998
NOON	1083	0	1546	NOON	1035	0	1603

	South Leg	
AM	969	895
NOON	0	0
PM	801	809

Total Volume Per Leg

	North Leg
AM	1456
NOON	0
PM	1487

West Leg	AM	NOON	PM	East Leg	AM	NOON	PM
	2409	0	2492		2461	0	2601

	South Leg
AM	1864
NOON	0
PM	1610

ITM Peak Hour Summary

Prepared by:

NDS

Pacific Ave and Anaheim St , City of Long Beach

Date: 5/17/2012

Day: Thursday

Project #: CA12_5192_009

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach

Pacific Ave

Lanes	0	2	1		
AM	40	319	75	349	AM
NOON	0	0	0	0	NOON
PM	44	316	72	588	PM

Eastbound Approach

Anaheim St

Lanes	AM	NOON	PM
	1078	0	832
1	49	0	85
2	622	0	1198
0	62	0	48

Westbound Approach

Lanes	AM	NOON	PM
0	59	0	62
2	966	0	717
1	47	0	58
	736	0	1354

Northbound Approach

AM	428	72	241	39	AM
NOON	0	0	0	0	NOON
PM	422	71	441	84	PM
		1	2	0	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	434	349	AM
	0	0	NOON
	432	588	PM

West Leg	AM	NOON	PM
	1078	0	832
	733	0	1331

East Leg	AM	NOON	PM
	1072	0	837
	736	0	1354

	South Leg	
AM	428	352
NOON	0	0
PM	422	596

Total Volume Per Leg

	North Leg
AM	783
NOON	0
PM	1020

West Leg	AM	NOON	PM
	1811	0	2163

East Leg	AM	NOON	PM
	1808	0	2191

	South Leg
AM	780
NOON	0
PM	1018

ITM Peak Hour Summary

Prepared by:

NDS

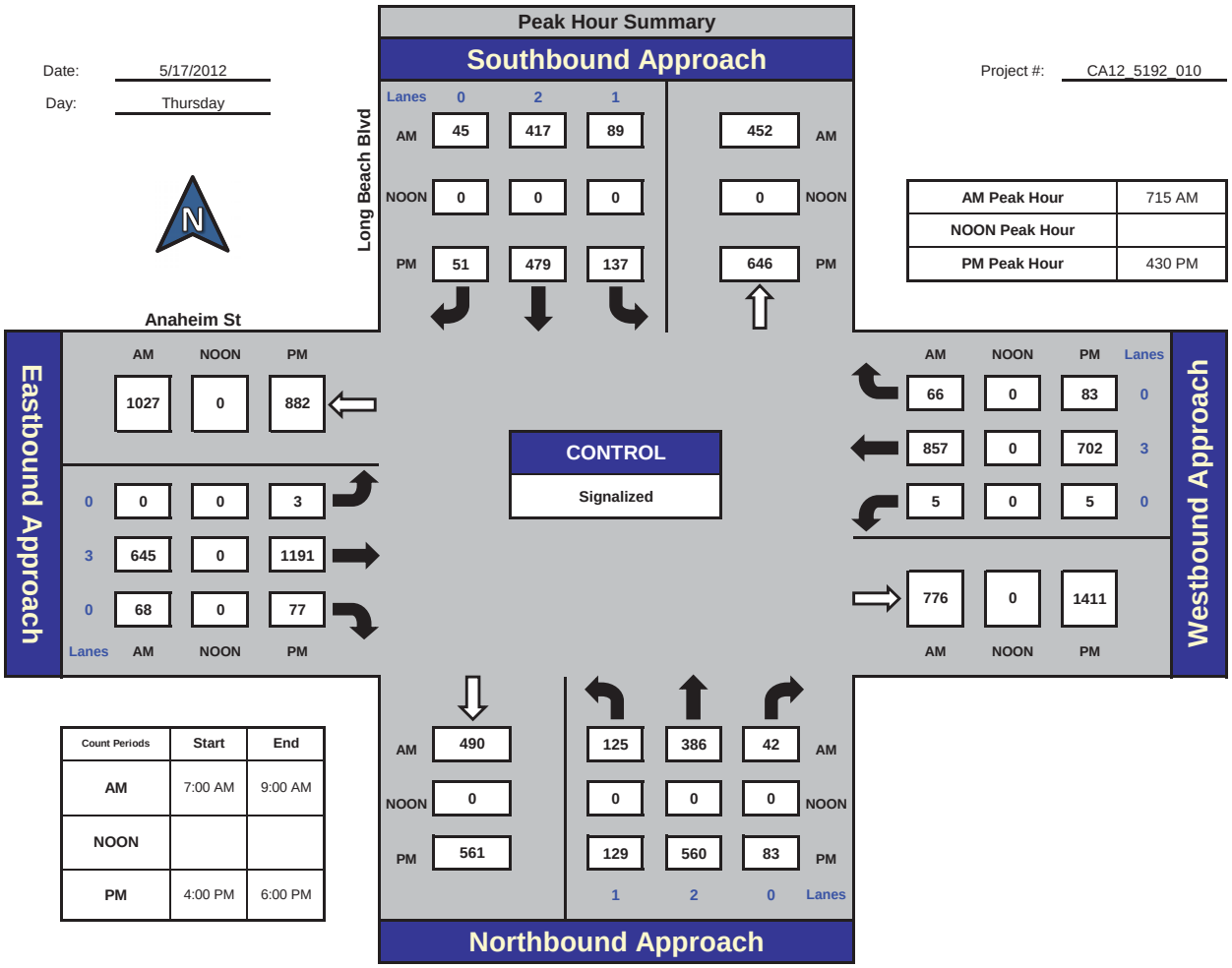
Long Beach Blvd and Anaheim St , City of Long Beach

Date: 5/17/2012

Day: Thursday

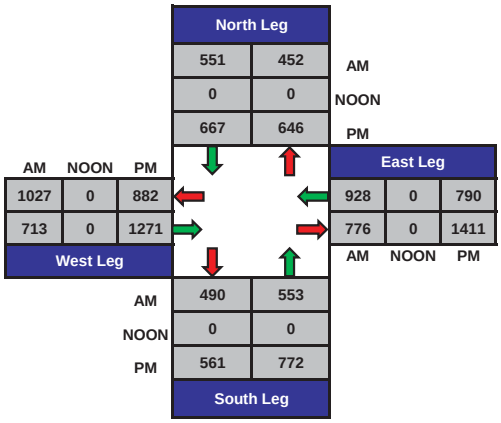
Project #: CA12_5192_010

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

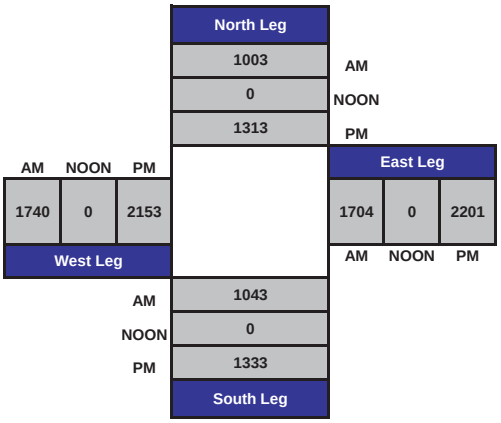


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

NDS

Atlantic Ave and Anaheim St , City of Long Beach

Date: 5/17/2012

Day: Thursday

Project #: CA12_5192_011

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach (Atlantic Ave)

Lanes	0	2	1		
AM	86	483	96	652	AM
NOON	0	0	0	0	NOON
PM	68	537	93	732	PM

Eastbound Approach (Anaheim St)

Lanes	AM	NOON	PM
	1034	0	817
1	110	0	142
2	502	0	1199
0	70	0	75

Westbound Approach

AM	NOON	PM	Lanes
137	0	99	0
887	0	705	2
204	0	96	1
635	0	1388	

Northbound Approach

	1	2	0	Lanes
AM	757	61	405	37	AM
NOON	0	0	0	0	NOON
PM	708	44	491	96	PM

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	665	652	AM
	0	0	NOON
	698	732	PM

West Leg	AM	NOON	PM
	1034	0	817
	682	0	1416

East Leg	AM	NOON	PM
	1228	0	900
	635	0	1388

	South Leg	
AM	757	503
NOON	0	0
PM	708	631

Total Volume Per Leg

	North Leg
AM	1317
NOON	0
PM	1430

West Leg	AM	NOON	PM
	1716	0	2233

East Leg	AM	NOON	PM
	1863	0	2288

	South Leg
AM	1260
NOON	0
PM	1339

ITM Peak Hour Summary

Prepared by:

NDS

Atlantic Ave and I-405 SB Ramps , Long Beach

Date: 1/14/2014

Day: Tuesday

Project #: 14-5007-001

City: Long Beach

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM

Peak Hour Summary

Southbound Approach (Atlantic Ave)

	Lanes 1	2	0		
AM	238	830	0	801	AM
NOON	0	0	0	0	NOON
PM	204	867	0	1287	PM

Eastbound Approach (I-405 SB Ramps)

Lanes	AM	NOON	PM
	238	0	204
1	138	0	214
0	0	0	0
1	358	0	272

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
0	0	0	0
0	0	0	0
243	0	252	

CONTROL: Signalized

Northbound Approach

AM	1188	0	663	243	AM
NOON	0	0	0	0	NOON
PM	1139	0	1073	252	PM
		0	3	0	Lanes

Count Periods	Start	End
AM		
NOON		
PM		

Total Ins & Outs

	North Leg		
	1068	801	AM
	0	0	NOON
	1071	1287	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
238	0	204	0	0	0
496	0	486	243	0	252

	South Leg	
AM	1188	906
NOON	0	0
PM	1139	1325

Total Volume Per Leg

	North Leg
AM	1869
NOON	0
PM	2358

West Leg AM	NOON	PM	East Leg AM	NOON	PM
734	0	690	243	0	252

	South Leg
AM	2094
NOON	0
PM	2464

ITM Peak Hour Summary

Prepared by:

NDS

Atlantic Ave and Spring St , Long Beach

Date:	1/14/2014
Day:	Tuesday

Project #:	14-5007-002
City:	Long Beach

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach (Atlantic Ave)

Lanes	0	2	1		
AM	129	960	83	895	AM
NOON	0	0	0	0	NOON
PM	145	882	130	1369	PM

Eastbound Approach (Spring St)

Lanes	AM	NOON	PM
	901	0	693
1	124	0	264
2	437	0	881
1	62	0	41

Westbound Approach

Lanes	AM	NOON	PM
1	82	0	93
2	729	0	493
1	218	0	90
	577	0	1202

CONTROL

Signalized

Northbound Approach

AM	1240	43	689	57	AM
NOON	0	0	0	0	NOON
PM	1013	55	1012	191	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	1172	895	AM
	0	0	NOON
	1157	1369	PM

West Leg				East Leg		
AM	NOON	PM				
901	0	693		1029	0	676
623	0	1186		577	0	1202
				AM	NOON	PM

	South Leg	
AM	1240	789
NOON	0	0
PM	1013	1258

Total Volume Per Leg

	North Leg
	2067 AM
	0 NOON
	2526 PM

West Leg				East Leg		
AM	NOON	PM				
1524	0	1879		1606	0	1878
				AM	NOON	PM

	South Leg
AM	2029
NOON	0
PM	2271

ITM Peak Hour Summary

Prepared by:

NDS

Atlantic Ave and Columbia St , Long Beach

Date:	1/14/2014
Day:	Tuesday

Project #:	14-5007-003
City:	Long Beach

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach (Atlantic Ave)

Lanes	0	2	1		
AM	35	1119	57	797	AM
NOON	0	0	0	0	NOON
PM	25	994	11	1148	PM

Eastbound Approach (Columbia St)

Lanes	AM	NOON	PM
	72	0	78
0	22	0	44
1	5	0	12
0	25	0	51

Westbound Approach

Lanes	AM	NOON	PM
0	6	0	106
1	0	0	11
0	7	0	44
	85	0	29

Northbound Approach

					Lanes
AM	1151	37	769	23	AM
NOON	0	0	0	0	NOON
PM	1089	42	998	6	PM
		1	2	0	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	1211	797	AM
	0	0	NOON
	1030	1148	PM

West Leg	AM	NOON	PM
	72	0	78
	52	0	107

East Leg	AM	NOON	PM
	13	0	161
	85	0	29

	South Leg	
AM	1151	829
NOON	0	0
PM	1089	1046

Total Volume Per Leg

	North Leg
AM	2008
NOON	0
PM	2178

West Leg	AM	NOON	PM
	124	0	185

East Leg	AM	NOON	PM
	98	0	190

	South Leg
AM	1980
NOON	0
PM	2135

ITM Peak Hour Summary

Prepared by:

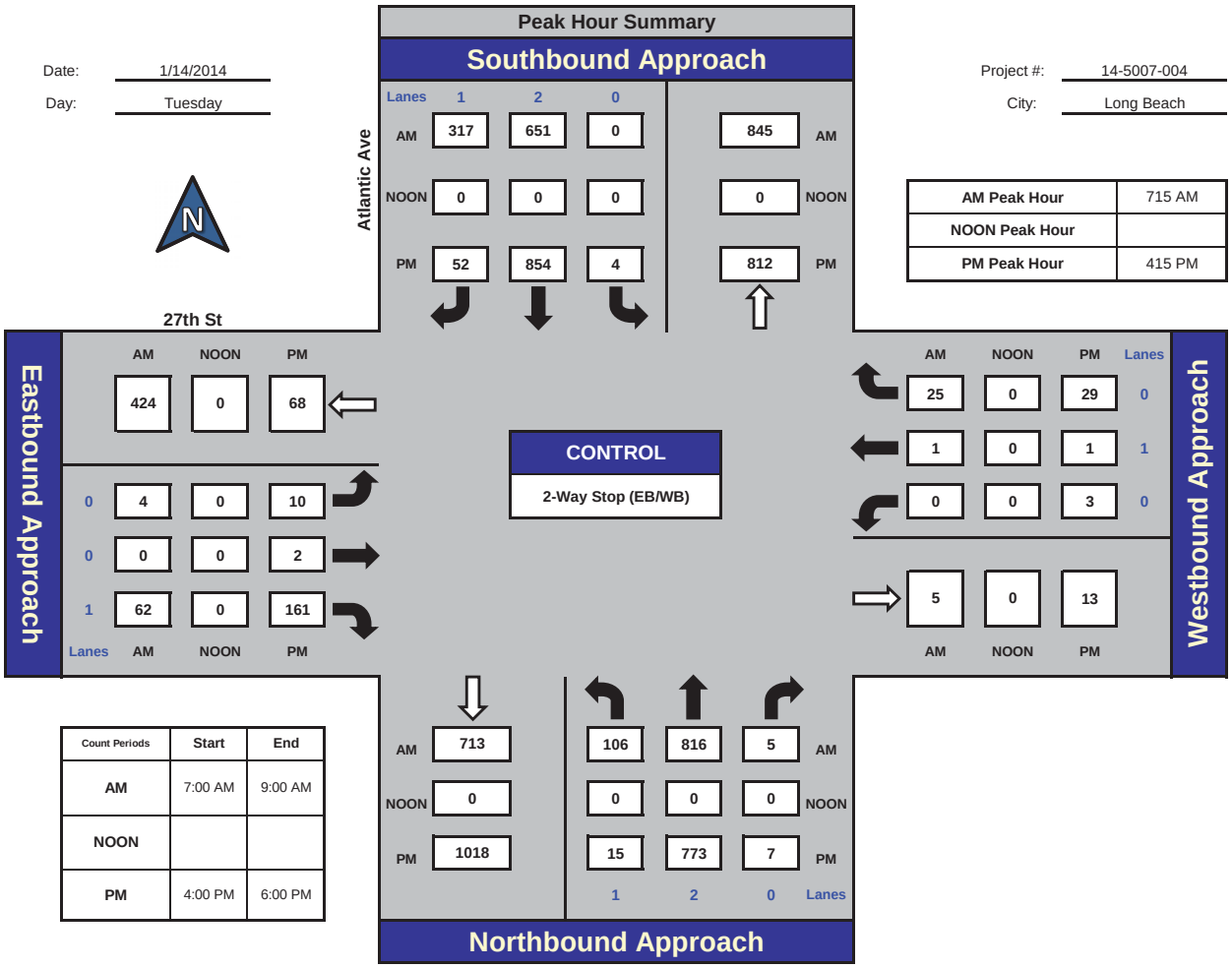
NDS

Atlantic Ave and 27th St , Long Beach

Date:	1/14/2014
Day:	Tuesday

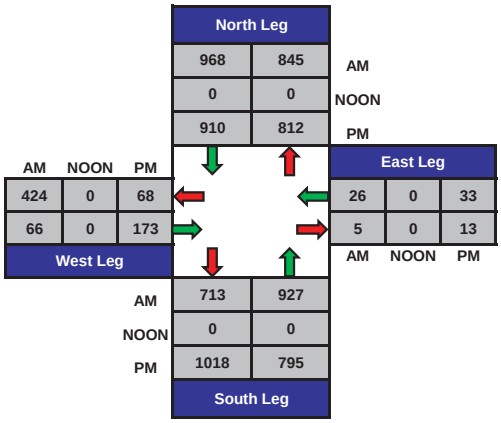
Project #:	14-5007-004
City:	Long Beach

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	415 PM

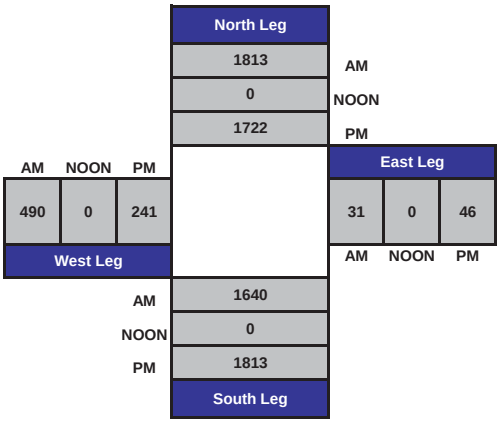


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Prepared by NDS/ATD

VOLUME

Long Beach Blvd between 36th St & 35th St

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_001

DAILY TOTALS	NB	SB	EB	WB	Total
	15,296	15,076	0	0	30,372

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	34		13						47		12:00	225		216						441	
00:15	31		15						46		12:15	226		225						451	
00:30	24		13						37		12:30	229		229						458	
00:45	24	113	14	55					38	168	12:45	283	963	276	946					559	1909
01:00	24		10						34		13:00	210		246						456	
01:15	22		20						42		13:15	246		254						500	
01:30	12		15						27		13:30	233		206						439	
01:45	19	77	9	54					28	131	13:45	204	893	274	980					478	1873
02:00	16		8						24		14:00	246		257						503	
02:15	7		12						19		14:15	248		251						499	
02:30	16		15						31		14:30	258		230						488	
02:45	8	47	8	43					16	90	14:45	260	1012	325	1063					585	2075
03:00	16		13						29		15:00	246		242						488	
03:15	9		12						21		15:15	287		282						569	
03:30	11		11						22		15:30	294		247						541	
03:45	8	44	15	51					23	95	15:45	267	1094	262	1033					529	2127
04:00	14		11						25		16:00	317		263						580	
04:15	18		10						28		16:15	293		296						589	
04:30	17		26						43		16:30	289		271						560	
04:45	25	74	38	85					63	159	16:45	292	1191	259	1089					551	2280
05:00	30		39						69		17:00	291		295						586	
05:15	36		58						94		17:15	356		325						681	
05:30	31		82						113		17:30	317		245						562	
05:45	51	148	103	282					154	430	17:45	300	1264	247	1112					547	2376
06:00	65		97						162		18:00	229		240						469	
06:15	90		107						197		18:15	240		222						462	
06:30	111		156						267		18:30	257		170						427	
06:45	124	390	183	543					307	933	18:45	218	944	198	830					416	1774
07:00	143		250						393		19:00	178		195						373	
07:15	192		303						495		19:15	165		147						312	
07:30	229		361						590		19:30	168		139						307	
07:45	295	859	398	1312					693	2171	19:45	142	653	136	617					278	1270
08:00	272		365						637		20:00	146		119						265	
08:15	225		288						513		20:15	121		135						256	
08:30	259		233						492		20:30	141		143						284	
08:45	284	1040	242	1128					526	2168	20:45	148	556	125	522					273	1078
09:00	234		219						453		21:00	116		83						199	
09:15	219		211						430		21:15	141		94						235	
09:30	233		210						443		21:30	108		60						168	
09:45	240	926	216	856					456	1782	21:45	103	468	81	318					184	786
10:00	262		191						453		22:00	87		77						164	
10:15	254		202						456		22:15	79		75						154	
10:30	262		212						474		22:30	56		74						130	
10:45	231	1009	217	822					448	1831	22:45	72	294	44	270					116	564
11:00	228		224						452		23:00	85		52						137	
11:15	288		233						521		23:15	48		33						81	
11:30	237		214						451		23:30	43		36						79	
11:45	275	1028	246	917					521	1945	23:45	33	209	27	148					60	357
TOTALS		5755		6148						11903	TOTALS		9541		8928						18469
SPLIT %		48.3%		51.7%						39.2%	SPLIT %		51.7%		48.3%						60.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	15,296	15,076	0	0	30,372

AM Peak Hour	07:45	07:15			07:30	PM Peak Hour	17:00	16:30			16:45
AM Pk Volume	1051	1427			2433	PM Pk Volume	1264	1150			2380
Pk Hr Factor	0.891	0.896			0.878	Pk Hr Factor	0.888	0.885			0.874
7 - 9 Volume	1899	2440	0	0	4339	4 - 6 Volume	2455	2201	0	0	4656
7 - 9 Peak Hour	07:45	07:15			07:30	4 - 6 Peak Hour	17:00	16:30			16:45
7 - 9 Pk Volume	1051	1427	0	0	2433	4 - 6 Pk Volume	1264	1150	0	0	2380
Pk Hr Factor	0.891	0.896	0.000	0.000	0.878	Pk Hr Factor	0.888	0.885	0.000	0.000	0.874

Prepared by NDS/ATD

VOLUME

Pacific Ave between 29th St & 28th St

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_002

DAILY TOTALS	NB	SB	EB	WB	Total
	8,074	6,629	0	0	14,703

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	19		17						36		12:00	117		85						202	
00:15	12		14						26		12:15	114		109						223	
00:30	19		8						27		12:30	146		94						240	
00:45	14	64	10	49					24	113	12:45	136	513	83	371					219	884
01:00	17		18						35		13:00	115		93						208	
01:15	4		6						10		13:15	116		91						207	
01:30	9		10						19		13:30	116		101						217	
01:45	13	43	5	39					18	82	13:45	103	450	91	376					194	826
02:00	7		7						14		14:00	117		99						216	
02:15	9		9						18		14:15	116		109						225	
02:30	8		8						16		14:30	156		97						253	
02:45	5	29	8	32					13	61	14:45	152	541	139	444					291	985
03:00	3		4						7		15:00	147		134						281	
03:15	9		3						12		15:15	156		99						255	
03:30	8		10						18		15:30	139		100						239	
03:45	9	29	6	23					15	52	15:45	143	585	141	474					284	1059
04:00	12		2						14		16:00	165		129						294	
04:15	14		6						20		16:15	135		112						247	
04:30	21		9						30		16:30	161		104						265	
04:45	23	70	14	31					37	101	16:45	154	615	122	467					276	1082
05:00	30		12						42		17:00	181		114						295	
05:15	36		20						56		17:15	196		127						323	
05:30	53		15						68		17:30	167		133						300	
05:45	52	171	33	80					85	251	17:45	150	694	133	507					283	1201
06:00	49		41						90		18:00	153		104						257	
06:15	77		58						135		18:15	121		108						229	
06:30	93		67						160		18:30	94		97						191	
06:45	122	341	91	257					213	598	18:45	122	490	98	407					220	897
07:00	108		97						205		19:00	103		74						177	
07:15	132		100						232		19:15	94		96						190	
07:30	177		129						306		19:30	96		88						184	
07:45	151	568	130	456					281	1024	19:45	89	382	61	319					150	701
08:00	138		132						270		20:00	82		60						142	
08:15	108		126						234		20:15	78		60						138	
08:30	91		132						223		20:30	69		77						146	
08:45	116	453	132	522					248	975	20:45	77	306	64	261					141	567
09:00	98		90						188		21:00	84		52						136	
09:15	95		106						201		21:15	57		54						111	
09:30	120		77						197		21:30	56		60						116	
09:45	101	414	95	368					196	782	21:45	45	242	46	212					91	454
10:00	88		81						169		22:00	47		32						79	
10:15	114		90						204		22:15	44		45						89	
10:30	83		77						160		22:30	44		42						86	
10:45	94	379	89	337					183	716	22:45	21	156	42	161					63	317
11:00	104		82						186		23:00	30		33						63	
11:15	131		93						224		23:15	23		19						42	
11:30	110		94						204		23:30	21		12						33	
11:45	107	452	86	355					193	807	23:45	13	87	17	81					30	168
TOTALS		3013		2549						5562	TOTALS		5061		4080						9141
SPLIT %		54.2%		45.8%						37.8%	SPLIT %		55.4%		44.6%						62.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	8,074	6,629	0	0	14,703

AM Peak Hour	07:15	08:00			07:30	PM Peak Hour	16:45	17:00			17:00
AM Pk Volume	598	522			1091	PM Pk Volume	698	507			1201
Pk Hr Factor	0.845	0.989			0.891	Pk Hr Factor	0.890	0.953			0.930
7 - 9 Volume	1021	978	0	0	1999	4 - 6 Volume	1309	974	0	0	2283
7 - 9 Peak Hour	07:15	08:00			07:30	4 - 6 Peak Hour	16:45	17:00			17:00
7 - 9 Pk Volume	598	522	0	0	1091	4 - 6 Pk Volume	698	507	0	0	1201
Pk Hr Factor	0.845	0.989	0.000	0.000	0.891	Pk Hr Factor	0.890	0.953	0.000	0.000	0.930

Prepared by NDS/ATD

VOLUME

Atlantic Ave between 29th St & 28th St

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_003

DAILY TOTALS	NB	SB	EB	WB	Total
	12,949	13,724	0	0	26,673

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	31		22						53		12:00	191		195						386	
00:15	19		27						46		12:15	231		214						445	
00:30	21		21						42		12:30	233		203						436	
00:45	25	96	19	89					44	185	12:45	197	852	209	821					406	1673
01:00	18		21						39		13:00	191		241						432	
01:15	8		15						23		13:15	213		245						458	
01:30	17		20						37		13:30	216		259						475	
01:45	15	58	14	70					29	128	13:45	246	866	240	985					486	1851
02:00	9		12						21		14:00	257		236						493	
02:15	11		12						23		14:15	204		230						434	
02:30	12		10						22		14:30	225		221						446	
02:45	9	41	14	48					23	89	14:45	254	940	268	955					522	1895
03:00	3		7						10		15:00	247		243						490	
03:15	5		8						13		15:15	271		243						514	
03:30	11		12						23		15:30	239		283						522	
03:45	17	36	7	34					24	70	15:45	262	1019	240	1009					502	2028
04:00	17		11						28		16:00	244		224						468	
04:15	21		12						33		16:15	265		229						494	
04:30	32		14						46		16:30	273		247						520	
04:45	15	85	24	61					39	146	16:45	271	1053	226	926					497	1979
05:00	27		29						56		17:00	266		207						473	
05:15	38		45						83		17:15	225		215						440	
05:30	50		53						103		17:30	238		200						438	
05:45	54	169	98	225					152	394	17:45	203	932	224	846					427	1778
06:00	73		69						142		18:00	174		202						376	
06:15	85		119						204		18:15	168		239						407	
06:30	93		160						253		18:30	162		216						378	
06:45	130	381	197	545					327	926	18:45	175	679	243	900					418	1579
07:00	116		144						260		19:00	172		180						352	
07:15	162		218						380		19:15	156		152						308	
07:30	183		248						431		19:30	150		155						305	
07:45	240	701	225	835					465	1536	19:45	137	615	163	650					300	1265
08:00	184		204						388		20:00	121		130						251	
08:15	167		234						401		20:15	119		139						258	
08:30	163		229						392		20:30	114		148						262	
08:45	167	681	226	893					393	1574	20:45	124	478	157	574					281	1052
09:00	189		191						380		21:00	109		102						211	
09:15	173		189						362		21:15	104		128						232	
09:30	208		211						419		21:30	92		95						187	
09:45	202	772	197	788					399	1560	21:45	70	375	103	428					173	803
10:00	205		182						387		22:00	59		94						153	
10:15	202		184						386		22:15	75		96						171	
10:30	189		180						369		22:30	68		94						162	
10:45	208	804	212	758					420	1562	22:45	56	258	80	364					136	622
11:00	215		193						408		23:00	52		51						103	
11:15	237		185						422		23:15	31		48						79	
11:30	213		176						389		23:30	42		47						89	
11:45	236	901	185	739					421	1640	23:45	32	157	35	181					67	338
TOTALS		4725		5085						9810	TOTALS		8224		8639						16863
SPLIT %		48.2%		51.8%						36.8%	SPLIT %		48.8%		51.2%						63.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	12,949	13,724	0	0	26,673

AM Peak Hour	11:00	07:30			11:45	PM Peak Hour	16:15	14:45			14:45
AM Pk Volume	901	911			1688	PM Pk Volume	1075	1037			2048
Pk Hr Factor	0.950	0.918			0.948	Pk Hr Factor	0.984	0.916			0.981
7 - 9 Volume	1382	1728	0	0	3110	4 - 6 Volume	1985	1772	0	0	3757
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	16:15	16:00			16:15
7 - 9 Pk Volume	774	911	0	0	1685	4 - 6 Pk Volume	1075	926	0	0	1984
Pk Hr Factor	0.806	0.918	0.000	0.000	0.906	Pk Hr Factor	0.984	0.937	0.000	0.000	0.954

Prepared by NDS/ATD

VOLUME

Pacific Ave between 20th St & 19th St

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_004

DAILY TOTALS	NB	SB	EB	WB	Total
	8,234	7,817	0	0	16,051

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	9		20						29		12:00	141		105						246	
00:15	14		11						25		12:15	137		118						255	
00:30	10		15						25		12:30	118		110						228	
00:45	12	45	11	57					23	102	12:45	133	529	148	481					281	1010
01:00	15		14						29		13:00	126		132						258	
01:15	9		8						17		13:15	140		126						266	
01:30	9		4						13		13:30	121		151						272	
01:45	14	47	9	35					23	82	13:45	137	524	136	545					273	1069
02:00	5		5						10		14:00	135		120						255	
02:15	12		6						18		14:15	133		134						267	
02:30	11		12						23		14:30	167		154						321	
02:45	8	36	3	26					11	62	14:45	172	607	152	560					324	1167
03:00	10		15						25		15:00	168		168						336	
03:15	5		3						8		15:15	168		142						310	
03:30	10		5						15		15:30	162		120						282	
03:45	4	29	3	26					7	55	15:45	165	663	135	565					300	1228
04:00	9		6						15		16:00	190		137						327	
04:15	12		5						17		16:15	142		148						290	
04:30	13		14						27		16:30	172		119						291	
04:45	18	52	11	36					29	88	16:45	184	688	152	556					336	1244
05:00	15		8						23		17:00	219		131						350	
05:15	25		19						44		17:15	201		149						350	
05:30	31		17						48		17:30	166		154						320	
05:45	37	108	21	65					58	173	17:45	154	740	122	556					276	1296
06:00	34		29						63		18:00	146		124						270	
06:15	51		48						99		18:15	115		126						241	
06:30	60		51						111		18:30	93		135						228	
06:45	69	214	82	210					151	424	18:45	99	453	116	501					215	954
07:00	82		77						159		19:00	87		102						189	
07:15	105		116						221		19:15	96		95						191	
07:30	149		186						335		19:30	90		83						173	
07:45	169	505	162	541					331	1046	19:45	76	349	84	364					160	713
08:00	142		129						271		20:00	95		77						172	
08:15	117		127						244		20:15	102		68						170	
08:30	83		127						210		20:30	66		66						132	
08:45	99	441	132	515					231	956	20:45	62	325	64	275					126	600
09:00	87		121						208		21:00	67		72						139	
09:15	106		128						234		21:15	81		62						143	
09:30	125		104						229		21:30	56		59						115	
09:45	96	414	100	453					196	867	21:45	40	244	56	249					96	493
10:00	103		113						216		22:00	51		58						109	
10:15	128		122						250		22:15	39		41						80	
10:30	115		119						234		22:30	40		42						82	
10:45	115	461	122	476					237	937	22:45	34	164	29	170					63	334
11:00	142		127						269		23:00	26		31						57	
11:15	118		119						237		23:15	17		28						45	
11:30	129		101						230		23:30	27		19						46	
11:45	116	505	116	463					232	968	23:45	21	91	14	92					35	183
TOTALS		2857		2903						5760	TOTALS		5377		4914						10291
SPLIT %		49.6%		50.4%						35.9%	SPLIT %		52.2%		47.8%						64.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	8,234	7,817	0	0	16,051

AM Peak Hour	07:30	07:30			07:30	PM Peak Hour	16:30	14:30			16:45
AM Pk Volume	577	604			1181	PM Pk Volume	776	616			1356
Pk Hr Factor	0.854	0.812			0.881	Pk Hr Factor	0.886	0.917			0.969
7 - 9 Volume	946	1056	0	0	2002	4 - 6 Volume	1428	1112	0	0	2540
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	16:30	16:45			16:45
7 - 9 Pk Volume	577	604	0	0	1181	4 - 6 Pk Volume	776	586	0	0	1356
Pk Hr Factor	0.854	0.812	0.000	0.000	0.881	Pk Hr Factor	0.886	0.951	0.000	0.000	0.969

Prepared by NDS/ATD

VOLUME

Atlantic Ave between 20th St & 19th St

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_005

DAILY TOTALS	NB	SB	EB	WB	Total
	11,178	10,468	0	0	21,646

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	30		30						60		12:00	201		193						394	
00:15	28		17						45		12:15	184		192						376	
00:30	27		11						38		12:30	205		218						423	
00:45	26	111	15	73					41	184	12:45	179	769	194	797					373	1566
01:00	20		16						36		13:00	211		183						394	
01:15	19		19						38		13:15	200		172						372	
01:30	17		11						28		13:30	203		175						378	
01:45	21	77	13	59					34	136	13:45	214	828	184	714					398	1542
02:00	18		13						31		14:00	223		205						428	
02:15	8		10						18		14:15	180		177						357	
02:30	17		15						32		14:30	183		196						379	
02:45	14	57	11	49					25	106	14:45	212	798	190	768					402	1566
03:00	12		11						23		15:00	224		216						440	
03:15	17		6						23		15:15	187		198						385	
03:30	8		7						15		15:30	193		184						377	
03:45	5	42	7	31					12	73	15:45	199	803	161	759					360	1562
04:00	12		8						20		16:00	194		188						382	
04:15	13		11						24		16:15	199		173						372	
04:30	12		11						23		16:30	190		190						380	
04:45	21	58	19	49					40	107	16:45	172	755	190	741					362	1496
05:00	23		18						41		17:00	208		221						429	
05:15	28		23						51		17:15	182		177						359	
05:30	29		29						58		17:30	205		231						436	
05:45	45	125	45	115					90	240	17:45	154	749	180	809					334	1558
06:00	63		50						113		18:00	204		186						390	
06:15	88		52						140		18:15	127		160						287	
06:30	81		65						146		18:30	162		163						325	
06:45	96	328	86	253					182	581	18:45	123	616	156	665					279	1281
07:00	140		97						237		19:00	126		127						253	
07:15	122		157						279		19:15	122		137						259	
07:30	208		238						446		19:30	107		128						235	
07:45	227	697	170	662					397	1359	19:45	122	477	107	499					229	976
08:00	200		155						355		20:00	122		108						230	
08:15	147		151						298		20:15	104		93						197	
08:30	161		134						295		20:30	86		112						198	
08:45	130	638	127	567					257	1205	20:45	105	417	95	408					200	825
09:00	130		130						260		21:00	113		99						212	
09:15	148		124						272		21:15	96		103						199	
09:30	168		117						285		21:30	77		73						150	
09:45	162	608	126	497					288	1105	21:45	94	380	75	350					169	730
10:00	144		137						281		22:00	65		64						129	
10:15	148		126						274		22:15	54		67						121	
10:30	148		137						285		22:30	66		58						124	
10:45	180	620	119	519					299	1139	22:45	72	257	42	231					114	488
11:00	188		152						340		23:00	52		48						100	
11:15	196		164						360		23:15	52		36						88	
11:30	210		189						399		23:30	40		30						70	
11:45	191	785	203	708					394	1493	23:45	39	183	31	145					70	328
TOTALS		4146		3582						7728	TOTALS		7032		6886						13918
SPLIT %		53.6%		46.4%						35.7%	SPLIT %		50.5%		49.5%						64.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	11,178	10,468	0	0	21,646

AM Peak Hour	11:15	11:45			11:45	PM Peak Hour	13:15	16:45			14:30
AM Pk Volume	798	806			1587	PM Pk Volume	840	819			1606
Pk Hr Factor	0.950	0.924			0.938	Pk Hr Factor	0.942	0.886			0.913
7 - 9 Volume	1335	1229	0	0	2564	4 - 6 Volume	1504	1550	0	0	3054
7 - 9 Peak Hour	07:30	07:15			07:30	4 - 6 Peak Hour	16:15	16:45			16:45
7 - 9 Pk Volume	782	720	0	0	1496	4 - 6 Pk Volume	769	819	0	0	1586
Pk Hr Factor	0.861	0.756	0.000	0.000	0.839	Pk Hr Factor	0.924	0.886	0.000	0.000	0.909

Prepared by NDS/ATD

VOLUME

Pacific Coast Hwy between Magnolia Ave & Chestnut Ave

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_006

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	17,505	18,046	35,551

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			41		46		87		12:00			240		254		494	
00:15			51		61		112		12:15			232		264		496	
00:30			51		34		85		12:30			237		252		489	
00:45			42	185	46	187	88	372	12:45			238	947	278	1048	516	1995
01:00			34		33		67		13:00			251		252		503	
01:15			36		33		69		13:15			249		254		503	
01:30			53		48		101		13:30			230		252		482	
01:45			33	156	48	162	81	318	13:45			252	982	253	1011	505	1993
02:00			34		33		67		14:00			259		283		542	
02:15			43		40		83		14:15			271		264		535	
02:30			38		25		63		14:30			305		230		535	
02:45			32	147	36	134	68	281	14:45			360	1195	245	1022	605	2217
03:00			23		22		45		15:00			355		273		628	
03:15			27		32		59		15:15			356		273		629	
03:30			16		42		58		15:30			367		270		637	
03:45			24	90	42	138	66	228	15:45			366	1444	246	1062	612	2506
04:00			23		45		68		16:00			368		237		605	
04:15			25		53		78		16:15			405		276		681	
04:30			32		74		106		16:30			402		266		668	
04:45			41	121	96	268	137	389	16:45			418	1593	239	1018	657	2611
05:00			39		92		131		17:00			415		226		641	
05:15			48		133		181		17:15			379		262		641	
05:30			59		229		288		17:30			362		249		611	
05:45			57	203	200	654	257	857	17:45			348	1504	228	965	576	2469
06:00			94		216		310		18:00			307		224		531	
06:15			105		286		391		18:15			303		242		545	
06:30			119		327		446		18:30			285		244		529	
06:45			163	481	291	1120	454	1601	18:45			256	1151	225	935	481	2086
07:00			170		323		493		19:00			223		198		421	
07:15			236		368		604		19:15			222		219		441	
07:30			290		407		697		19:30			214		186		400	
07:45			231	927	364	1462	595	2389	19:45			187	846	201	804	388	1650
08:00			207		378		585		20:00			154		161		315	
08:15			216		300		516		20:15			204		168		372	
08:30			222		244		466		20:30			148		154		302	
08:45			219	864	254	1176	473	2040	20:45			170	676	131	614	301	1290
09:00			191		251		442		21:00			155		166		321	
09:15			215		256		471		21:15			153		209		362	
09:30			209		252		461		21:30			138		175		313	
09:45			206	821	222	981	428	1802	21:45			140	586	129	679	269	1265
10:00			210		207		417		22:00			124		142		266	
10:15			217		219		436		22:15			127		141		268	
10:30			213		222		435		22:30			96		125		221	
10:45			217	857	227	875	444	1732	22:45			91	438	90	498	181	936
11:00			259		215		474		23:00			78		98		176	
11:15			224		237		461		23:15			84		76		160	
11:30			233		233		466		23:30			66		85		151	
11:45			281	997	232	917	513	1914	23:45			66	294	57	316	123	610
TOTALS				5849		8074		13923	TOTALS				11656		9972		21628
SPLIT %				42.0%		58.0%		39.2%	SPLIT %				53.9%		46.1%		60.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	17,505	18,046	35,551

AM Peak Hour			11:00	07:15	07:15	PM Peak Hour			16:15	15:00	16:15
AM Pk Volume			997	1517	2481	PM Pk Volume			1640	1062	2647
Pk Hr Factor			0.887	0.932	0.890	Pk Hr Factor			0.981	0.973	0.972
7 - 9 Volume	0	0	1791	2638	4429	4 - 6 Volume	0	0	3097	1983	5080
7 - 9 Peak Hour			07:15	07:15	07:15	4 - 6 Peak Hour			16:15	16:00	16:15
7 - 9 Pk Volume	0	0	964	1517	2481	4 - 6 Pk Volume	0	0	1640	1018	2647
Pk Hr Factor	0.000	0.000	0.831	0.932	0.890	Pk Hr Factor	0.000	0.000	0.981	0.922	0.972

Prepared by NDS/ATD

VOLUME

Pacific Coast Hwy between Myrtle Ave & Martin Luther King Jr Ave

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_007

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	17,316	17,011	34,327

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			37		47		84		12:00			261		241		502	
00:15			55		51		106		12:15			206		246		452	
00:30			41		41		82		12:30			220		222		442	
00:45			36	169	44	183	80	352	12:45			225	912	254	963	479	1875
01:00			38		39		77		13:00			245		238		483	
01:15			34		33		67		13:15			257		247		504	
01:30			29		47		76		13:30			239		277		516	
01:45			30	131	44	163	74	294	13:45			302	1043	278	1040	580	2083
02:00			37		32		69		14:00			243		247		490	
02:15			48		39		87		14:15			290		248		538	
02:30			38		21		59		14:30			279		274		553	
02:45			34	157	28	120	62	277	14:45			346	1158	283	1052	629	2210
03:00			18		15		33		15:00			355		251		606	
03:15			18		27		45		15:15			347		259		606	
03:30			24		32		56		15:30			347		256		603	
03:45			28	88	27	101	55	189	15:45			337	1386	245	1011	582	2397
04:00			22		46		68		16:00			348		266		614	
04:15			28		26		54		16:15			365		271		636	
04:30			34		42		76		16:30			388		245		633	
04:45			44	128	53	167	97	295	16:45			382	1483	238	1020	620	2503
05:00			33		61		94		17:00			399		253		652	
05:15			66		87		153		17:15			386		258		644	
05:30			73		115		188		17:30			387		245		632	
05:45			54	226	139	402	193	628	17:45			352	1524	239	995	591	2519
06:00			69		145		214		18:00			334		242		576	
06:15			123		185		308		18:15			309		234		543	
06:30			124		232		356		18:30			276		223		499	
06:45			160	476	268	830	428	1306	18:45			239	1158	233	932	472	2090
07:00			202		272		474		19:00			242		223		465	
07:15			210		338		548		19:15			200		196		396	
07:30			250		396		646		19:30			203		160		363	
07:45			332	994	403	1409	735	2403	19:45			185	830	167	746	352	1576
08:00			201		312		513		20:00			171		184		355	
08:15			234		285		519		20:15			187		166		353	
08:30			235		297		532		20:30			174		161		335	
08:45			210	880	285	1179	495	2059	20:45			168	700	153	664	321	1364
09:00			189		219		408		21:00			135		146		281	
09:15			217		230		447		21:15			156		161		317	
09:30			193		240		433		21:30			140		157		297	
09:45			223	822	214	903	437	1725	21:45			118	549	128	592	246	1141
10:00			202		216		418		22:00			119		126		245	
10:15			218		220		438		22:15			117		104		221	
10:30			199		232		431		22:30			113		108		221	
10:45			222	841	227	895	449	1736	22:45			84	433	86	424	170	857
11:00			227		228		455		23:00			79		89		168	
11:15			244		244		488		23:15			60		95		155	
11:30			241		242		483		23:30			62		53		115	
11:45			263	975	218	932	481	1907	23:45			52	253	51	288	103	541
TOTALS				5887		7284		13171	TOTALS				11429		9727		21156
SPLIT %				44.7%		55.3%		38.4%	SPLIT %				54.0%		46.0%		61.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	17,316	17,011	34,327

AM Peak Hour			07:30	07:15	07:15	PM Peak Hour			16:30	14:30	16:30
AM Pk Volume			1017	1449	2442	PM Pk Volume			1555	1067	2549
Pk Hr Factor			0.766	0.899	0.831	Pk Hr Factor			0.974	0.943	0.977
7 - 9 Volume	0	0	1874	2588	4462	4 - 6 Volume	0	0	3007	2015	5022
7 - 9 Peak Hour			07:30	07:15	07:15	4 - 6 Peak Hour			16:30	16:00	16:30
7 - 9 Pk Volume	0	0	1017	1449	2442	4 - 6 Pk Volume	0	0	1555	1020	2549
Pk Hr Factor	0.000	0.000	0.766	0.899	0.831	Pk Hr Factor	0.000	0.000	0.974	0.941	0.977

Prepared by NDS/ATD

VOLUME

Pacific Ave between 16th Ave & 15th Ave

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_008

DAILY TOTALS	NB	SB	EB	WB	Total
	6,421	6,531	0	0	12,952

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	12		22						34		12:00	110		70						180	
00:15	8		11						19		12:15	96		94						190	
00:30	21		12						33		12:30	81		84						165	
00:45	17	58	11	56					28	114	12:45	90	377	113	361					203	738
01:00	15		10						25		13:00	86		95						181	
01:15	7		6						13		13:15	110		99						209	
01:30	8		8						16		13:30	95		110						205	
01:45	8	38	5	29					13	67	13:45	83	374	105	409					188	783
02:00	7		7						14		14:00	108		73						181	
02:15	11		6						17		14:15	103		118						221	
02:30	12		5						17		14:30	105		120						225	
02:45	11	41	6	24					17	65	14:45	140	456	144	455					284	911
03:00	8		6						14		15:00	115		136						251	
03:15	3		5						8		15:15	114		120						234	
03:30	2		4						6		15:30	125		106						231	
03:45	1	14	2	17					3	31	15:45	126	480	114	476					240	956
04:00	5		6						11		16:00	149		130						279	
04:15	5		5						10		16:15	106		136						242	
04:30	11		9						20		16:30	146		109						255	
04:45	7	28	4	24					11	52	16:45	126	527	127	502					253	1029
05:00	12		6						18		17:00	173		116						289	
05:15	22		11						33		17:15	155		117						272	
05:30	27		12						39		17:30	129		124						253	
05:45	32	93	24	53					56	146	17:45	108	565	131	488					239	1053
06:00	44		20						64		18:00	129		104						233	
06:15	53		35						88		18:15	104		109						213	
06:30	57		42						99		18:30	82		97						179	
06:45	62	216	69	166					131	382	18:45	89	404	103	413					192	817
07:00	63		45						108		19:00	89		95						184	
07:15	82		80						162		19:15	73		91						164	
07:30	121		156						277		19:30	73		79						152	
07:45	107	373	146	427					253	800	19:45	53	288	58	323					111	611
08:00	95		136						231		20:00	65		66						131	
08:15	90		115						205		20:15	84		58						142	
08:30	82		125						207		20:30	67		62						129	
08:45	77	344	112	488					189	832	20:45	45	261	64	250					109	511
09:00	65		90						155		21:00	52		60						112	
09:15	79		118						197		21:15	82		56						138	
09:30	83		61						144		21:30	55		67						122	
09:45	79	306	83	352					162	658	21:45	52	241	57	240					109	481
10:00	84		107						191		22:00	37		42						79	
10:15	89		92						181		22:15	35		38						73	
10:30	81		80						161		22:30	30		30						60	
10:45	89	343	92	371					181	714	22:45	32	134	24	134					56	268
11:00	99		88						187		23:00	24		28						52	
11:15	90		91						181		23:15	19		42						61	
11:30	97		91						188		23:30	27		19						46	
11:45	91	377	94	364					185	741	23:45	13	83	20	109					33	192
TOTALS		2231		2371						4602	TOTALS		4190		4160						8350
SPLIT %		48.5%		51.5%						35.5%	SPLIT %		50.2%		49.8%						64.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	6,421	6,531	0	0	12,952

AM Peak Hour	07:30	07:30			07:30	PM Peak Hour	16:30	14:30			16:30
AM Pk Volume	413	553			966	PM Pk Volume	600	520			1069
Pk Hr Factor	0.853	0.886			0.872	Pk Hr Factor	0.867	0.903			0.925
7 - 9 Volume	717	915	0	0	1632	4 - 6 Volume	1092	990	0	0	2082
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	16:30	16:00			16:30
7 - 9 Pk Volume	413	553	0	0	966	4 - 6 Pk Volume	600	502	0	0	1069
Pk Hr Factor	0.853	0.886	0.000	0.000	0.872	Pk Hr Factor	0.867	0.923	0.000	0.000	0.925

Prepared by NDS/ATD

VOLUME

Atlantic Ave between 16th Ave & 15th Ave

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_009

DAILY TOTALS	NB	SB	EB	WB	Total
	9,734	9,938	0	0	19,672

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	15		16						31		12:00	151		155						306	
00:15	18		25						43		12:15	155		152						307	
00:30	22		14						36		12:30	147		147						294	
00:45	20	75	12	67					32	142	12:45	143	596	145	599					288	1195
01:00	13		10						23		13:00	132		147						279	
01:15	11		10						21		13:15	163		140						303	
01:30	7		10						17		13:30	179		162						341	
01:45	8	39	8	38					16	77	13:45	198	672	182	631					380	1303
02:00	9		12						21		14:00	168		201						369	
02:15	10		7						17		14:15	167		186						353	
02:30	14		9						23		14:30	184		184						368	
02:45	5	38	5	33					10	71	14:45	202	721	177	748					379	1469
03:00	2		10						12		15:00	195		182						377	
03:15	5		9						14		15:15	196		176						372	
03:30	5		4						9		15:30	210		174						384	
03:45	11	23	7	30					18	53	15:45	207	808	217	749					424	1557
04:00	10		8						18		16:00	191		180						371	
04:15	12		11						23		16:15	180		180						360	
04:30	22		9						31		16:30	176		159						335	
04:45	11	55	15	43					26	98	16:45	175	722	189	708					364	1430
05:00	16		13						29		17:00	194		174						368	
05:15	25		18						43		17:15	199		186						385	
05:30	32		20						52		17:30	171		173						344	
05:45	35	108	36	87					71	195	17:45	168	732	193	726					361	1458
06:00	40		41						81		18:00	150		185						335	
06:15	54		64						118		18:15	156		215						371	
06:30	65		72						137		18:30	135		168						303	
06:45	97	256	111	288					208	544	18:45	126	567	140	708					266	1275
07:00	109		109						218		19:00	115		144						259	
07:15	170		128						298		19:15	115		149						264	
07:30	233		160						393		19:30	95		111						206	
07:45	235	747	226	623					461	1370	19:45	92	417	105	509					197	926
08:00	156		160						316		20:00	104		114						218	
08:15	131		146						277		20:15	86		88						174	
08:30	120		144						264		20:30	81		117						198	
08:45	138	545	145	595					283	1140	20:45	86	357	95	414					181	771
09:00	131		119						250		21:00	89		78						167	
09:15	113		145						258		21:15	85		67						152	
09:30	141		142						283		21:30	59		72						131	
09:45	128	513	135	541					263	1054	21:45	52	285	93	310					145	595
10:00	143		146						289		22:00	49		65						114	
10:15	140		121						261		22:15	56		66						122	
10:30	132		150						282		22:30	52		47						99	
10:45	140	555	134	551					274	1106	22:45	41	198	36	214					77	412
11:00	131		139						270		23:00	35		44						79	
11:15	143		148						291		23:15	28		29						57	
11:30	169		163						332		23:30	22		28						50	
11:45	148	591	153	603					301	1194	23:45	29	114	22	123					51	237
TOTALS		3545		3499						7044	TOTALS		6189		6439						12628
SPLIT %		50.3%		49.7%						35.8%	SPLIT %		49.0%		51.0%						64.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,734	9,938	0	0	19,672

AM Peak Hour	07:15	07:30			07:15	PM Peak Hour	15:00	17:30			15:00
AM Pk Volume	794	692			1468	PM Pk Volume	808	766			1557
Pk Hr Factor	0.845	0.765			0.796	Pk Hr Factor	0.962	0.891			0.918
7 - 9 Volume	1292	1218	0	0	2510	4 - 6 Volume	1454	1434	0	0	2888
7 - 9 Peak Hour	07:15	07:30			07:15	4 - 6 Peak Hour	16:30	17:00			16:45
7 - 9 Pk Volume	794	692	0	0	1468	4 - 6 Pk Volume	744	726	0	0	1461
Pk Hr Factor	0.845	0.765	0.000	0.000	0.796	Pk Hr Factor	0.935	0.940	0.000	0.000	0.949

Prepared by NDS/ATD

VOLUME

Long Beach Blvd between 11th St & 10th St

Day: Thursday
Date: 5/17/2012

City: Long Beach
Project #: CA12_5193_010

DAILY TOTALS	NB	SB	EB	WB	Total
	9,781	8,054	0	0	17,835

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	25		24						49		12:00	166		147						313	
00:15	23		14						37		12:15	174		132						306	
00:30	23		13						36		12:30	156		133						289	
00:45	31	102	16	67					47	169	12:45	151	647	134	546					285	1193
01:00	24		13						37		13:00	183		141						324	
01:15	16		13						29		13:15	178		119						297	
01:30	19		9						28		13:30	165		118						283	
01:45	22	81	13	48					35	129	13:45	168	694	138	516					306	1210
02:00	15		13						28		14:00	163		129						292	
02:15	15		14						29		14:15	172		135						307	
02:30	12		7						19		14:30	166		134						300	
02:45	14	56	8	42					22	98	14:45	150	651	153	551					303	1202
03:00	6		2						8		15:00	181		153						334	
03:15	6		13						19		15:15	180		154						334	
03:30	14		4						18		15:30	191		139						330	
03:45	16	42	5	24					21	66	15:45	164	716	139	585					303	1301
04:00	13		4						17		16:00	187		158						345	
04:15	11		10						21		16:15	186		142						328	
04:30	18		9						27		16:30	172		146						318	
04:45	16	58	19	42					35	100	16:45	196	741	143	589					339	1330
05:00	28		17						45		17:00	160		160						320	
05:15	29		21						50		17:15	197		132						329	
05:30	42		21						63		17:30	145		158						303	
05:45	45	144	37	96					82	240	17:45	151	653	163	613					314	1266
06:00	59		33						92		18:00	166		147						313	
06:15	81		42						123		18:15	125		106						231	
06:30	65		41						106		18:30	120		114						234	
06:45	88	293	64	180					152	473	18:45	125	536	120	487					245	1023
07:00	104		75						179		19:00	111		127						238	
07:15	122		99						221		19:15	112		97						209	
07:30	135		124						259		19:30	100		77						177	
07:45	145	506	146	444					291	950	19:45	105	428	94	395					199	823
08:00	142		141						283		20:00	110		98						208	
08:15	133		136						269		20:15	87		74						161	
08:30	129		139						268		20:30	69		78						147	
08:45	121	525	119	535					240	1060	20:45	99	365	68	318					167	683
09:00	126		117						243		21:00	101		69						170	
09:15	130		104						234		21:15	92		64						156	
09:30	157		106						263		21:30	86		61						147	
09:45	137	550	131	458					268	1008	21:45	73	352	66	260					139	612
10:00	132		115						247		22:00	64		36						100	
10:15	126		128						254		22:15	59		49						108	
10:30	149		136						285		22:30	69		46						115	
10:45	155	562	107	486					262	1048	22:45	52	244	37	168					89	412
11:00	171		123						294		23:00	52		28						80	
11:15	142		126						268		23:15	40		27						67	
11:30	173		127						300		23:30	37		14						51	
11:45	192	678	141	517					333	1195	23:45	28	157	18	87					46	244
TOTALS		3597		2939						6536	TOTALS		6184		5115						11299
SPLIT %		55.0%		45.0%						36.6%	SPLIT %		54.7%		45.3%						63.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,781	8,054	0	0	17,835

AM Peak Hour	11:30	07:45			11:30	PM Peak Hour	16:00	17:00			16:00
AM Pk Volume	705	562			1252	PM Pk Volume	741	613			1330
Pk Hr Factor	0.918	0.962			0.940	Pk Hr Factor	0.945	0.940			0.964
7 - 9 Volume	1031	979	0	0	2010	4 - 6 Volume	1394	1202	0	0	2596
7 - 9 Peak Hour	07:30	07:45			07:45	4 - 6 Peak Hour	16:00	17:00			16:00
7 - 9 Pk Volume	555	562	0	0	1111	4 - 6 Pk Volume	741	613	0	0	1330
Pk Hr Factor	0.957	0.962	0.000	0.000	0.954	Pk Hr Factor	0.945	0.940	0.000	0.000	0.964

Prepared by NDS/ATD

VOLUME

Atlantic Ave N/o Wardlow Rd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5008_001

DAILY TOTALS	NB	SB	EB	WB	Total
	12,365	12,159	0	0	24,524

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	18		7						25		12:00	208		215						423	
00:15	9		16						25		12:15	241		224						465	
00:30	13		11						24		12:30	217		239						456	
00:45	11	51	12	46					23	97	12:45	210	876	216	894					426	1770
01:00	11		14						25		13:00	210		226						436	
01:15	11		8						19		13:15	226		216						442	
01:30	6		12						18		13:30	225		206						431	
01:45	5	33	7	41					12	74	13:45	223	884	208	856					431	1740
02:00	6		6						12		14:00	209		231						440	
02:15	3		8						11		14:15	227		226						453	
02:30	4		6						10		14:30	208		221						429	
02:45	8	21	3	23					11	44	14:45	246	890	226	904					472	1794
03:00	8		3						11		15:00	240		204						444	
03:15	4		2						6		15:15	254		193						447	
03:30	9		5						14		15:30	281		206						487	
03:45	12	33	7	17					19	50	15:45	276	1051	241	844					517	1895
04:00	4		9						13		16:00	249		259						508	
04:15	8		15						23		16:15	256		199						455	
04:30	6		15						21		16:30	243		229						472	
04:45	13	31	18	57					31	88	16:45	288	1036	199	886					487	1922
05:00	11		26						37		17:00	255		238						493	
05:15	13		54						67		17:15	282		212						494	
05:30	31		58						89		17:30	281		207						488	
05:45	24	79	73	211					97	290	17:45	305	1123	231	888					536	2011
06:00	31		94						125		18:00	220		204						424	
06:15	43		77						120		18:15	233		208						441	
06:30	60		118						178		18:30	231		192						423	
06:45	77	211	144	433					221	644	18:45	178	862	184	788					362	1650
07:00	91		158						249		19:00	201		161						362	
07:15	89		201						290		19:15	179		139						318	
07:30	140		202						342		19:30	141		133						274	
07:45	176	496	217	778					393	1274	19:45	130	651	119	552					249	1203
08:00	157		181						338		20:00	140		113						253	
08:15	156		188						344		20:15	92		125						217	
08:30	167		167						334		20:30	96		103						199	
08:45	203	683	214	750					417	1433	20:45	92	420	86	427					178	847
09:00	158		181						339		21:00	104		82						186	
09:15	188		139						327		21:15	87		82						169	
09:30	181		176						357		21:30	92		64						156	
09:45	197	724	159	655					356	1379	21:45	62	345	65	293					127	638
10:00	163		188						351		22:00	50		60						110	
10:15	189		164						353		22:15	60		50						110	
10:30	196		185						381		22:30	49		39						88	
10:45	173	721	181	718					354	1439	22:45	45	204	33	182					78	386
11:00	199		198						397		23:00	31		30						61	
11:15	199		201						400		23:15	17		22						39	
11:30	224		200						424		23:30	18		28						46	
11:45	230	852	214	813					444	1665	23:45	22	88	23	103					45	191
TOTALS		3935		4542						8477	TOTALS		8430		7617						16047
SPLIT %		46.4%		53.6%						34.6%	SPLIT %		52.5%		47.5%						65.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	12,365	12,159	0	0	24,524

AM Peak Hour	11:30	11:45			11:45	PM Peak Hour	17:00	15:45			17:00
AM Pk Volume	903	892			1788	PM Pk Volume	1123	928			2011
Pk Hr Factor	0.937	0.933			0.961	Pk Hr Factor	0.920	0.896			0.938
7 - 9 Volume	1179	1528	0	0	2707	4 - 6 Volume	2159	1774	0	0	3933
7 - 9 Peak Hour	08:00	07:15			08:00	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	683	801	0	0	1433	4 - 6 Pk Volume	1123	888	0	0	2011
Pk Hr Factor	0.841	0.923	0.000	0.000	0.859	Pk Hr Factor	0.920	0.933	0.000	0.000	0.938

Prepared by NDS/ATD

VOLUME

Spring St E/o Atlantic Ave

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5008_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	9,090	9,756	18,846

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			13		19		32		12:00			155		130		285	
00:15			10		21		31		12:15			139		157		296	
00:30			7		26		33		12:30			112		142		254	
00:45			6	36	8	74	14	110	12:45			142	548	155	584	297	1132
01:00			2		11		13		13:00			131		167		298	
01:15			6		6		12		13:15			146		167		313	
01:30			2		4		6		13:30			129		176		305	
01:45			4	14	9	30	13	44	13:45			147	553	141	651	288	1204
02:00			3		11		14		14:00			167		137		304	
02:15			4		11		15		14:15			163		145		308	
02:30			1		3		4		14:30			176		160		336	
02:45			1	9	11	36	12	45	14:45			179	685	160	602	339	1287
03:00			4		10		14		15:00			181		161		342	
03:15			3		4		7		15:15			168		153		321	
03:30			6		5		11		15:30			209		155		364	
03:45			5	18	5	24	10	42	15:45			225	783	163	632	388	1415
04:00			5		3		8		16:00			273		187		460	
04:15			10		4		14		16:15			236		164		400	
04:30			10		8		18		16:30			266		148		414	
04:45			18	43	12	27	30	70	16:45			286	1061	140	639	426	1700
05:00			15		13		28		17:00			324		178		502	
05:15			25		17		42		17:15			310		210		520	
05:30			31		49		80		17:30			260		193		453	
05:45			37	108	40	119	77	227	17:45			198	1092	140	721	338	1813
06:00			24		59		83		18:00			193		156		349	
06:15			36		73		109		18:15			146		146		292	
06:30			45		106		151		18:30			109		104		213	
06:45			85	190	175	413	260	603	18:45			87	535	133	539	220	1074
07:00			104		178		282		19:00			76		105		181	
07:15			157		234		391		19:15			85		105		190	
07:30			134		265		399		19:30			107		88		195	
07:45			175	570	258	935	433	1505	19:45			70	338	95	393	165	731
08:00			118		264		382		20:00			93		79		172	
08:15			112		251		363		20:15			56		75		131	
08:30			115		233		348		20:30			58		71		129	
08:45			103	448	239	987	342	1435	20:45			39	246	67	292	106	538
09:00			98		195		293		21:00			44		54		98	
09:15			104		169		273		21:15			57		65		122	
09:30			113		147		260		21:30			41		52		93	
09:45			125	440	126	637	251	1077	21:45			47	189	39	210	86	399
10:00			97		109		206		22:00			28		49		77	
10:15			103		113		216		22:15			32		44		76	
10:30			117		119		236		22:30			23		35		58	
10:45			118	435	103	444	221	879	22:45			23	106	21	149	44	255
11:00			127		118		245		23:00			37		39		76	
11:15			128		128		256		23:15			22		25		47	
11:30			138		122		260		23:30			19		30		49	
11:45			153	546	132	500	285	1046	23:45			19	97	24	118	43	215
TOTALS				2857		4226		7083	TOTALS			11	6233		5530		11763
SPLIT %				40.3%		59.7%		37.6%	SPLIT %				53.0%		47.0%		62.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	9,090	9,756	18,846

AM Peak Hour			11:30	07:30	07:15	PM Peak Hour			16:30	16:45	16:45
AM Pk Volume			585	1038	1605	PM Pk Volume			1186	721	1901
Pk Hr Factor			0.944	0.979	0.927	Pk Hr Factor			0.915	0.858	0.914
7 - 9 Volume	0	0	1018	1922	2940	4 - 6 Volume	0	0	2153	1360	3513
7 - 9 Peak Hour			07:15	07:30	07:15	4 - 6 Peak Hour			16:30	16:45	16:45
7 - 9 Pk Volume	0	0	584	1038	1605	4 - 6 Pk Volume	0	0	1186	721	1901
Pk Hr Factor	0.000	0.000	0.834	0.979	0.927	Pk Hr Factor	0.000	0.000	0.915	0.858	0.914

Prepared by NDS/ATD

VOLUME

Willow St E/o Atlantic Ave

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5008_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,632	13,641	26,273

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			12		17		29		12:00			231		229		460	
00:15			12		26		38		12:15			240		211		451	
00:30			13		21		34		12:30			224		232		456	
00:45			10	47	15	79	25	126	12:45			207	902	219	891	426	1793
01:00			13		7		20		13:00			237		217		454	
01:15			7		13		20		13:15			181		227		408	
01:30			10		11		21		13:30			211		215		426	
01:45			5	35	20	51	25	86	13:45			249	878	240	899	489	1777
02:00			3		10		13		14:00			211		207		418	
02:15			3		8		11		14:15			255		210		465	
02:30			7		6		13		14:30			223		228		451	
02:45			3	16	4	28	7	44	14:45			257	946	221	866	478	1812
03:00			7		6		13		15:00			287		233		520	
03:15			6		8		14		15:15			271		248		519	
03:30			12		7		19		15:30			289		243		532	
03:45			12	37	5	26	17	63	15:45			338	1185	251	975	589	2160
04:00			12		7		19		16:00			310		266		576	
04:15			12		12		24		16:15			347		238		585	
04:30			11		22		33		16:30			323		241		564	
04:45			27	62	28	69	55	131	16:45			359	1339	239	984	598	2323
05:00			12		29		41		17:00			341		267		608	
05:15			33		54		87		17:15			360		257		617	
05:30			52		67		119		17:30			327		260		587	
05:45			60	157	94	244	154	401	17:45			264	1292	264	1048	528	2340
06:00			43		132		175		18:00			233		217		450	
06:15			68		136		204		18:15			183		193		376	
06:30			105		206		311		18:30			152		186		338	
06:45			110	326	207	681	317	1007	18:45			144	712	159	755	303	1467
07:00			116		226		342		19:00			122		155		277	
07:15			168		289		457		19:15			106		153		259	
07:30			174		306		480		19:30			101		128		229	
07:45			228	686	309	1130	537	1816	19:45			95	424	109	545	204	969
08:00			183		294		477		20:00			81		126		207	
08:15			181		267		448		20:15			73		86		159	
08:30			188		265		453		20:30			66		104		170	
08:45			171	723	229	1055	400	1778	20:45			42	262	84	400	126	662
09:00			173		204		377		21:00			45		95		140	
09:15			157		210		367		21:15			41		93		134	
09:30			174		181		355		21:30			41		81		122	
09:45			172	676	171	766	343	1442	21:45			40	167	57	326	97	493
10:00			168		174		342		22:00			39		55		94	
10:15			187		171		358		22:15			33		43		76	
10:30			152		199		351		22:30			33		35		68	
10:45			204	711	193	737	397	1448	22:45			28	133	36	169	64	302
11:00			189		167		356		23:00			31		33		64	
11:15			207		198		405		23:15			29		29		58	
11:30			217		207		424		23:30			23		33		56	
11:45			198	811	219	791	417	1602	23:45			22	105	31	126	53	231
TOTALS				4287		5657		9944	TOTALS				8345		7984		16329
SPLIT %				43.1%		56.9%		37.8%	SPLIT %				51.1%		48.9%		62.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,632	13,641	26,273

AM Peak Hour			11:45	07:15	07:15	PM Peak Hour			16:45	17:00	16:45
AM Pk Volume			893	1198	1951	PM Pk Volume			1387	1048	2410
Pk Hr Factor			0.930	0.969	0.908	Pk Hr Factor			0.963	0.981	0.976
7 - 9 Volume	0	0	1409	2185	3594	4 - 6 Volume	0	0	2631	2032	4663
7 - 9 Peak Hour			07:45	07:15	07:15	4 - 6 Peak Hour			16:45	17:00	16:45
7 - 9 Pk Volume	0	0	780	1198	1951	4 - 6 Pk Volume	0	0	1387	1048	2410
Pk Hr Factor	0.000	0.000	0.855	0.969	0.908	Pk Hr Factor	0.000	0.000	0.963	0.981	0.976

Prepared by NDS/ATD

VOLUME

Atlantic Ave S/o Willow St

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5008_004

DAILY TOTALS	NB	SB	EB	WB	Total
	9,817	10,079	0	0	19,896

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	9		12						21		12:00	173		155						328	
00:15	7		25						32		12:15	158		174						332	
00:30	14		15						29		12:30	154		159						313	
00:45	7	37	13	65					20	102	12:45	143	628	160	648					303	1276
01:00	9		6						15		13:00	159		171						330	
01:15	3		13						16		13:15	169		159						328	
01:30	7		7						14		13:30	175		157						332	
01:45	6	25	9	35					15	60	13:45	161	664	161	648					322	1312
02:00	10		7						17		14:00	178		179						357	
02:15	7		12						19		14:15	166		178						344	
02:30	5		9						14		14:30	178		197						375	
02:45	8	30	8	36					16	66	14:45	203	725	183	737					386	1462
03:00	16		4						20		15:00	203		208						411	
03:15	7		10						17		15:15	180		189						369	
03:30	17		6						23		15:30	173		189						362	
03:45	17	57	7	27					24	84	15:45	191	747	221	807					412	1554
04:00	14		9						23		16:00	186		223						409	
04:15	22		8						30		16:15	177		190						367	
04:30	34		12						46		16:30	171		212						383	
04:45	37	107	12	41					49	148	16:45	188	722	184	809					372	1531
05:00	30		16						46		17:00	194		238						432	
05:15	54		34						88		17:15	188		196						384	
05:30	93		31						124		17:30	178		206						384	
05:45	91	268	24	105					115	373	17:45	165	725	222	862					387	1587
06:00	66		38						104		18:00	157		221						378	
06:15	91		40						131		18:15	152		176						328	
06:30	120		69						189		18:30	129		163						292	
06:45	135	412	79	226					214	638	18:45	139	577	165	725					304	1302
07:00	123		117						240		19:00	106		146						252	
07:15	189		176						365		19:15	93		144						237	
07:30	214		196						410		19:30	109		129						238	
07:45	225	751	112	601					337	1352	19:45	79	387	94	513					173	900
08:00	148		123						271		20:00	75		106						181	
08:15	136		109						245		20:15	66		90						156	
08:30	152		114						266		20:30	72		105						177	
08:45	133	569	147	493					280	1062	20:45	61	274	90	391					151	665
09:00	132		143						275		21:00	63		83						146	
09:15	125		111						236		21:15	68		94						162	
09:30	146		124						270		21:30	62		78						140	
09:45	144	547	125	503					269	1050	21:45	37	230	59	314					96	544
10:00	117		140						257		22:00	50		75						125	
10:15	121		133						254		22:15	36		60						96	
10:30	111		126						237		22:30	52		60						112	
10:45	138	487	152	551					290	1038	22:45	33	171	55	250					88	421
11:00	144		136						280		23:00	33		51						84	
11:15	150		141						291		23:15	32		30						62	
11:30	137		128						265		23:30	17		35						52	
11:45	149	580	138	543					287	1123	23:45	15	97	33	149					48	246
TOTALS		3870		3226						7096	TOTALS		5947		6853						12800
SPLIT %		54.5%		45.5%						35.7%	SPLIT %		46.5%		53.5%						64.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,817	10,079	0	0	19,896

AM Peak Hour	07:15	11:45			07:15	PM Peak Hour	14:30	17:00			17:00
AM Pk Volume	776	626			1383	PM Pk Volume	764	862			1587
Pk Hr Factor	0.862	0.899			0.843	Pk Hr Factor	0.941	0.905			0.918
7 - 9 Volume	1320	1094	0	0	2414	4 - 6 Volume	1447	1671	0	0	3118
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	16:45	17:00			17:00
7 - 9 Pk Volume	776	607	0	0	1383	4 - 6 Pk Volume	748	862	0	0	1587
Pk Hr Factor	0.862	0.774	0.000	0.000	0.843	Pk Hr Factor	0.964	0.905	0.000	0.000	0.918

Prepared by NDS/ATD

VOLUME

25th St W/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	257	416	673

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		0		0		12:00			3		8		11	
00:15			0		0		0		12:15			4		12		16	
00:30			2		0		2		12:30			7		11		18	
00:45			1	3	1	1	2	4	12:45			6	20	7	38	13	58
01:00			0		0		0		13:00			5		14		19	
01:15			0		1		1		13:15			6		12		18	
01:30			0		0		0		13:30			3		6		9	
01:45			1	1	1	2	2	3	13:45			2	16	12	44	14	60
02:00			2		0		2		14:00			4		8		12	
02:15			1		0		1		14:15			2		5		7	
02:30			0		0		0		14:30			4		6		10	
02:45			0	3	0		0	3	14:45			8	18	9	28	17	46
03:00			0		0		0		15:00			6		9		15	
03:15			0		0		0		15:15			7		9		16	
03:30			0		0		0		15:30			7		8		15	
03:45			0		0		0		15:45			5	25	5	31	10	56
04:00			0		0		0		16:00			6		8		14	
04:15			0		0		0		16:15			4		9		13	
04:30			0		0		0		16:30			4		9		13	
04:45			0		0		0		16:45			5	19	9	35	14	54
05:00			2		0		2		17:00			5		10		15	
05:15			0		0		0		17:15			5		12		17	
05:30			0		0		0		17:30			3		3		6	
05:45			1	3	0		1	3	17:45			2	15	8	33	10	48
06:00			0		1		1		18:00			7		12		19	
06:15			1		0		1		18:15			5		11		16	
06:30			3		1		4		18:30			3		6		9	
06:45			3	7	0	2	3	9	18:45			3	18	9	38	12	56
07:00			2		0		2		19:00			3		4		7	
07:15			4		1		5		19:15			4		5		9	
07:30			5		0		5		19:30			3		3		6	
07:45			4	15	5	6	9	21	19:45			3	13	8	20	11	33
08:00			3		4		7		20:00			2		7		9	
08:15			4		1		5		20:15			1		7		8	
08:30			6		5		11		20:30			3		5		8	
08:45			4	17	5	15	9	32	20:45			4	10	9	28	13	38
09:00			5		5		10		21:00			2		6		8	
09:15			1		2		3		21:15			7		5		12	
09:30			0		3		3		21:30			1		3		4	
09:45			2	8	5	15	7	23	21:45			1	11	2	16	3	27
10:00			2		9		11		22:00			3		2		5	
10:15			3		2		5		22:15			1		2		3	
10:30			6		6		12		22:30			2		4		6	
10:45			5	16	6	23	11	39	22:45			0	6	0	8	0	14
11:00			0		5		5		23:00			1		2		3	
11:15			1		9		10		23:15			1		1		2	
11:30			5		6		11		23:30			1		0		1	
11:45			3	9	10	30	13	39	23:45			1	4	0	3	1	7
TOTALS				82		94		176	TOTALS				175		322		497
SPLIT %				46.6%		53.4%		26.2%	SPLIT %				35.2%		64.8%		73.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	257	416	673

AM Peak Hour			08:15	11:45	11:45	PM Peak Hour			14:45	12:15	12:30
AM Pk Volume			19	41	58	PM Pk Volume			28	44	68
Pk Hr Factor			0.792	0.854	0.806	Pk Hr Factor			0.875	0.786	0.895
7 - 9 Volume	0	0	32	21	53	4 - 6 Volume	0	0	34	68	102
7 - 9 Peak Hour			07:45	07:45	07:45	4 - 6 Peak Hour			16:00	16:30	16:30
7 - 9 Pk Volume	0	0	17	15	32	4 - 6 Pk Volume	0	0	19	40	59
Pk Hr Factor	0.000	0.000	0.708	0.750	0.727	Pk Hr Factor	0.000	0.000	0.792	0.833	0.868

Prepared by NDS/ATD

VOLUME

25th St E/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	299	396	695

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		1		3		12:00			5		13		18	
00:15			2		3		5		12:15			4		6		10	
00:30			2		0		2		12:30			2		4		6	
00:45			0	6	1	5	1	11	12:45			2	13	6	29	8	42
01:00			0		0		0		13:00			11		2		13	
01:15			1		0		1		13:15			3		6		9	
01:30			0		0		0		13:30			3		10		13	
01:45			0	1	1	1	1	2	13:45			3	20	4	22	7	42
02:00			1		0		1		14:00			1		8		9	
02:15			0		0		0		14:15			7		9		16	
02:30			0		2		2		14:30			5		4		9	
02:45			0	1	0	2	0	3	14:45			2	15	3	24	5	39
03:00			1		0		1		15:00			4		5		9	
03:15			0		2		2		15:15			6		4		10	
03:30			0		0		0		15:30			4		6		10	
03:45			0	1	0	2	0	3	15:45			4	18	5	20	9	38
04:00			0		0		0		16:00			7		8		15	
04:15			0		1		1		16:15			6		10		16	
04:30			0		1		1		16:30			12		6		18	
04:45			0		1	3	1	3	16:45			7	32	8	32	15	64
05:00			0		2		2		17:00			5		10		15	
05:15			1		3		4		17:15			5		5		10	
05:30			1		4		5		17:30			6		3		9	
05:45			2	4	5	14	7	18	17:45			3	19	5	23	8	42
06:00			4		1		5		18:00			4		4		8	
06:15			5		9		14		18:15			3		3		6	
06:30			16		7		23		18:30			3		5		8	
06:45			19	44	6	23	25	67	18:45			1	11	2	14	3	25
07:00			9		10		19		19:00			3		6		9	
07:15			2		6		8		19:15			0		5		5	
07:30			1		5		6		19:30			3		3		6	
07:45			2	14	6	27	8	41	19:45			4	10	6	20	10	30
08:00			3		5		8		20:00			4		3		7	
08:15			2		10		12		20:15			0		5		5	
08:30			2		6		8		20:30			3		4		7	
08:45			8	15	7	28	15	43	20:45			1	8	3	15	4	23
09:00			9		9		18		21:00			1		3		4	
09:15			6		5		11		21:15			1		2		3	
09:30			7		6		13		21:30			2		5		7	
09:45			8	30	3	23	11	53	21:45			2	6	3	13	5	19
10:00			4		5		9		22:00			2		3		5	
10:15			3		4		7		22:15			1		2		3	
10:30			2		6		8		22:30			2		1		3	
10:45			5	14	5	20	10	34	22:45			1	6	1	7	2	13
11:00			2		4		6		23:00			0		2		2	
11:15			0		4		4		23:15			0		1		1	
11:30			3		9		12		23:30			2		4		6	
11:45			3	8	5	22	8	30	23:45			1	3	0	7	1	10
TOTALS				138		170		308	TOTALS				161		226		387
SPLIT %				44.8%		55.2%		44.3%	SPLIT %				41.6%		58.4%		55.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	299	396	695

AM Peak Hour			06:15	11:30	06:15	PM Peak Hour			16:00	16:15	16:00
AM Pk Volume			49	33	81	PM Pk Volume			32	34	64
Pk Hr Factor			0.645	0.635	0.810	Pk Hr Factor			0.667	0.850	0.889
7 - 9 Volume	0	0	29	55	84	4 - 6 Volume	0	0	51	55	106
7 - 9 Peak Hour			08:00	08:00	08:00	4 - 6 Peak Hour			16:00	16:15	16:00
7 - 9 Pk Volume	0	0	15	28	43	4 - 6 Pk Volume	0	0	32	34	64
Pk Hr Factor	0.000	0.000	0.469	0.700	0.717	Pk Hr Factor	0.000	0.000	0.667	0.850	0.889

Prepared by NDS/ATD

VOLUME

23rd St W/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	235	395	630

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		4		4		12:00			4		1		5	
00:15			0		3		3		12:15			4		7		11	
00:30			1		0		1		12:30			2		6		8	
00:45			0	1	0	7	0	8	12:45			1	11	11	25	12	36
01:00			0		1		1		13:00			7		9		16	
01:15			0		1		1		13:15			5		4		9	
01:30			0		0		0		13:30			3		11		14	
01:45			0		0	2	0	2	13:45			5	20	6	30	11	50
02:00			0		2		2		14:00			1		7		8	
02:15			0		0		0		14:15			5		13		18	
02:30			0		0		0		14:30			7		7		14	
02:45			0		1	3	1	3	14:45			3	16	6	33	9	49
03:00			0		1		1		15:00			2		7		9	
03:15			0		0		0		15:15			1		5		6	
03:30			0		0		0		15:30			0		8		8	
03:45			0		0	1	0	1	15:45			8	11	8	28	16	39
04:00			0		0		0		16:00			3		9		12	
04:15			0		0		0		16:15			2		6		8	
04:30			0		1		1		16:30			1		9		10	
04:45			0		0	1	0	1	16:45			9	15	7	31	16	46
05:00			0		0		0		17:00			6		8		14	
05:15			1		0		1		17:15			1		5		6	
05:30			2		1		3		17:30			4		10		14	
05:45			0	3	0	1	0	4	17:45			6	17	11	34	17	51
06:00			2		2		4		18:00			7		4		11	
06:15			1		2		3		18:15			7		15		22	
06:30			3		0		3		18:30			8		6		14	
06:45			1	7	1	5	2	12	18:45			5	27	9	34	14	61
07:00			7		2		9		19:00			3		10		13	
07:15			4		2		6		19:15			3		8		11	
07:30			3		4		7		19:30			2		2		4	
07:45			3	17	3	11	6	28	19:45			2	10	2	22	4	32
08:00			5		5		10		20:00			1		4		5	
08:15			5		2		7		20:15			2		8		10	
08:30			2		3		5		20:30			2		6		8	
08:45			6	18	4	14	10	32	20:45			2	7	5	23	7	30
09:00			6		10		16		21:00			0		4		4	
09:15			1		4		5		21:15			1		1		2	
09:30			1		7		8		21:30			4		4		8	
09:45			5	13	6	27	11	40	21:45			1	6	4	13	5	19
10:00			3		6		9		22:00			0		0		0	
10:15			2		6		8		22:15			1		2		3	
10:30			3		6		9		22:30			1		1		2	
10:45			0	8	4	22	4	30	22:45			2	4	3	6	5	10
11:00			3		7		10		23:00			0		4		4	
11:15			6		3		9		23:15			2		1		3	
11:30			6		2		8		23:30			1		1		2	
11:45			4	19	2	14	6	33	23:45			2	5	2	8	4	13
TOTALS				86		108		194	TOTALS				149		287		436
SPLIT %				44.3%		55.7%		30.8%	SPLIT %				34.2%		65.8%		69.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	235	395	630

AM Peak Hour			11:15	09:00	09:00	PM Peak Hour			17:45	17:30	17:30
AM Pk Volume			20	27	40	PM Pk Volume			28	40	64
Pk Hr Factor			0.833	0.675	0.625	Pk Hr Factor			0.875	0.667	0.727
7 - 9 Volume	0	0	35	25	60	4 - 6 Volume	0	0	32	65	97
7 - 9 Peak Hour			08:00	07:15	08:00	4 - 6 Peak Hour			16:45	17:00	17:00
7 - 9 Pk Volume	0	0	18	14	32	4 - 6 Pk Volume	0	0	20	34	51
Pk Hr Factor	0.000	0.000	0.750	0.700	0.800	Pk Hr Factor	0.000	0.000	0.556	0.773	0.750

Prepared by NDS/ATD

VOLUME

23rd St E/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	182	283	465

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		3		4		12:00			8		2		10	
00:15			0		1		1		12:15			1		4		5	
00:30			0		1		1		12:30			5		5		10	
00:45			0	1	0	5	0	6	12:45			2	16	10	21	12	37
01:00			0		0		0		13:00			1		5		6	
01:15			0		0		0		13:15			3		5		8	
01:30			0		0		0		13:30			1		6		7	
01:45			0		0		0		13:45			4	9	0	16	4	25
02:00			0		0		0		14:00			2		5		7	
02:15			0		0		0		14:15			5		4		9	
02:30			0		0		0		14:30			2		3		5	
02:45			0		0		0		14:45			5	14	2	14	7	28
03:00			0		1		1		15:00			1		3		4	
03:15			0		0		0		15:15			1		6		7	
03:30			0		0		0		15:30			2		3		5	
03:45			0		0	1	0	1	15:45			5	9	10	22	15	31
04:00			0		1		1		16:00			2		8		10	
04:15			0		1		1		16:15			4		3		7	
04:30			0		0		0		16:30			4		11		15	
04:45			0		1	3	1	3	16:45			4	14	4	26	8	40
05:00			1		2		3		17:00			3		6		9	
05:15			0		1		1		17:15			5		3		8	
05:30			1		3		4		17:30			3		1		4	
05:45			0	2	3	9	3	11	17:45			4	15	3	13	7	28
06:00			2		0		2		18:00			1		2		3	
06:15			2		4		6		18:15			1		0		1	
06:30			0		3		3		18:30			3		2		5	
06:45			0	4	2	9	2	13	18:45			1	6	2	6	3	12
07:00			3		3		6		19:00			1		3		4	
07:15			2		2		4		19:15			0		2		2	
07:30			2		14		16		19:30			2		1		3	
07:45			5	12	13	32	18	44	19:45			5	8	4	10	9	18
08:00			7		14		21		20:00			4		6		10	
08:15			6		5		11		20:15			1		1		2	
08:30			2		4		6		20:30			0		2		2	
08:45			2	17	1	24	3	41	20:45			3	8	1	10	4	18
09:00			1		5		6		21:00			1		3		4	
09:15			6		2		8		21:15			4		3		7	
09:30			3		1		4		21:30			1		1		2	
09:45			4	14	4	12	8	26	21:45			2	8	3	10	5	18
10:00			5		5		10		22:00			1		2		3	
10:15			0		4		4		22:15			0		0		0	
10:30			2		2		4		22:30			2		2		4	
10:45			3	10	5	16	8	26	22:45			0	3	1	5	1	8
11:00			2		2		4		23:00			1		0		1	
11:15			1		6		7		23:15			0		0		0	
11:30			4		5		9		23:30			0		3		3	
11:45			4	11	3	16	7	27	23:45			0	1	0	3	0	4
TOTALS				71		127		198	TOTALS				111		156		267
SPLIT %				35.9%		64.1%		42.6%	SPLIT %				41.6%		58.4%		57.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	182	283	465

AM Peak Hour			07:30	07:30	07:30	PM Peak Hour			12:00	15:45	15:45
AM Pk Volume			20	46	66	PM Pk Volume			16	32	47
Pk Hr Factor			0.714	0.821	0.786	Pk Hr Factor			0.500	0.727	0.783
7 - 9 Volume	0	0	29	56	85	4 - 6 Volume	0	0	29	39	68
7 - 9 Peak Hour			07:30	07:30	07:30	4 - 6 Peak Hour			16:30	16:00	16:00
7 - 9 Pk Volume	0	0	20	46	66	4 - 6 Pk Volume	0	0	16	26	40
Pk Hr Factor	0.000	0.000	0.714	0.821	0.786	Pk Hr Factor	0.000	0.000	0.800	0.591	0.667

Prepared by NDS/ATD

VOLUME

21st St W/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	569	334	903

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			4		0		4		12:00			10		3		13	
00:15			0		1		1		12:15			13		6		19	
00:30			4		2		6		12:30			5		4		9	
00:45			0	8	0	3	0	11	12:45			16	44	7	20	23	64
01:00			2		1		3		13:00			7		10		17	
01:15			0		0		0		13:15			10		6		16	
01:30			0		0		0		13:30			8		3		11	
01:45			0	2	0	1	0	3	13:45			10	35	4	23	14	58
02:00			1		0		1		14:00			9		3		12	
02:15			0		0		0		14:15			10		10		20	
02:30			0		2		2		14:30			11		9		20	
02:45			0	1	0	2	0	3	14:45			9	39	5	27	14	66
03:00			0		2		2		15:00			10		5		15	
03:15			1		0		1		15:15			8		7		15	
03:30			1		0		1		15:30			11		6		17	
03:45			1	3	0	2	1	5	15:45			8	37	7	25	15	62
04:00			0		0		0		16:00			13		11		24	
04:15			1		2		3		16:15			9		3		12	
04:30			0		1		1		16:30			18		5		23	
04:45			2	3	0	3	2	6	16:45			10	50	5	24	15	74
05:00			0		0		0		17:00			8		12		20	
05:15			1		0		1		17:15			16		5		21	
05:30			2		0		2		17:30			10		4		14	
05:45			0	3	1	1	1	4	17:45			9	43	4	25	13	68
06:00			1		1		2		18:00			13		4		17	
06:15			1		1		2		18:15			11		11		22	
06:30			0		1		1		18:30			12		5		17	
06:45			7	9	5	8	12	17	18:45			7	43	4	24	11	67
07:00			6		2		8		19:00			8		5		13	
07:15			8		2		10		19:15			11		4		15	
07:30			12		5		17		19:30			5		7		12	
07:45			11	37	1	10	12	47	19:45			8	32	6	22	14	54
08:00			2		2		4		20:00			5		4		9	
08:15			6		2		8		20:15			6		3		9	
08:30			6		5		11		20:30			7		7		14	
08:45			9	23	1	10	10	33	20:45			8	26	2	16	10	42
09:00			6		5		11		21:00			6		3		9	
09:15			10		4		14		21:15			6		4		10	
09:30			12		4		16		21:30			4		4		8	
09:45			8	36	7	20	15	56	21:45			5	21	3	14	8	35
10:00			5		6		11		22:00			1		1		2	
10:15			3		3		6		22:15			3		2		5	
10:30			6		5		11		22:30			8		6		14	
10:45			11	25	6	20	17	45	22:45			3	15	4	13	7	28
11:00			4		6		10		23:00			1		3		4	
11:15			7		3		10		23:15			1		1		2	
11:30			10		2		12		23:30			1		1		2	
11:45			10	31	5	16	15	47	23:45			0	3	0	5	0	8
TOTALS				181		96		277	TOTALS				388		238		626
SPLIT %				65.3%		34.7%		30.7%	SPLIT %				62.0%		38.0%		69.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	569	334	903

AM Peak Hour			11:30	09:15	11:30	PM Peak Hour			16:30	15:15	16:30
AM Pk Volume			43	21	59	PM Pk Volume			52	31	79
Pk Hr Factor			0.827	0.750	0.776	Pk Hr Factor			0.722	0.705	0.859
7 - 9 Volume	0	0	60	20	80	4 - 6 Volume	0	0	93	49	142
7 - 9 Peak Hour			07:00	07:00	07:00	4 - 6 Peak Hour			16:30	16:30	16:30
7 - 9 Pk Volume	0	0	37	10	47	4 - 6 Pk Volume	0	0	52	27	79
Pk Hr Factor	0.000	0.000	0.771	0.500	0.691	Pk Hr Factor	0.000	0.000	0.722	0.563	0.859

Prepared by NDS/ATD

VOLUME

21st St E/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_006

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	218	448	666

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		2		3		12:00			2		5		7	
00:15			0		2		2		12:15			5		5		10	
00:30			0		0		0		12:30			4		7		11	
00:45			0	1	0	4	0	5	12:45			2	13	7	24	9	37
01:00			0		0		0		13:00			3		9		12	
01:15			0		0		0		13:15			1		7		8	
01:30			0		2		2		13:30			3		7		10	
01:45			2	2	1	3	3	5	13:45			2	9	4	27	6	36
02:00			0		0		0		14:00			4		9		13	
02:15			0		0		0		14:15			5		10		15	
02:30			1		0		1		14:30			3		6		9	
02:45			0	1	0		0	1	14:45			1	13	4	29	5	42
03:00			1		0		1		15:00			2		7		9	
03:15			0		0		0		15:15			3		7		10	
03:30			0		0		0		15:30			2		8		10	
03:45			0	1	2	2	2	3	15:45			4	11	12	34	16	45
04:00			0		0		0		16:00			4		6		10	
04:15			0		1		1		16:15			5		4		9	
04:30			1		3		4		16:30			6		5		11	
04:45			0	1	1	5	1	6	16:45			3	18	6	21	9	39
05:00			0		2		2		17:00			6		10		16	
05:15			2		5		7		17:15			4		6		10	
05:30			1		8		9		17:30			6		8		14	
05:45			2	5	4	19	6	24	17:45			3	19	6	30	9	49
06:00			0		6		6		18:00			3		8		11	
06:15			1		4		5		18:15			2		10		12	
06:30			1		6		7		18:30			6		5		11	
06:45			1	3	4	20	5	23	18:45			2	13	7	30	9	43
07:00			1		4		5		19:00			6		3		9	
07:15			1		5		6		19:15			3		9		12	
07:30			3		7		10		19:30			0		5		5	
07:45			6	11	13	29	19	40	19:45			2	11	10	27	12	38
08:00			5		11		16		20:00			6		4		10	
08:15			2		5		7		20:15			3		9		12	
08:30			2		5		7		20:30			2		1		3	
08:45			3	12	8	29	11	41	20:45			3	14	9	23	12	37
09:00			2		6		8		21:00			3		1		4	
09:15			5		6		11		21:15			2		4		6	
09:30			8		6		14		21:30			4		4		8	
09:45			3	18	6	24	9	42	21:45			4	13	5	14	9	27
10:00			1		2		3		22:00			2		2		4	
10:15			4		2		6		22:15			0		4		4	
10:30			5		9		14		22:30			1		3		4	
10:45			4	14	2	15	6	29	22:45			0	3	2	11	2	14
11:00			1		8		9		23:00			1		2		3	
11:15			1		3		4		23:15			0		0		0	
11:30			5		8		13		23:30			1		0		1	
11:45			2	9	7	26	9	35	23:45			1	3	0	2	1	5
TOTALS				78		176		254	TOTALS				140		272		412
SPLIT %				30.7%		69.3%		38.1%	SPLIT %				34.0%		66.0%		61.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	218	448	666

AM Peak Hour			08:45	07:15	07:30	PM Peak Hour			16:15	15:00	16:45
AM Pk Volume			18	36	52	PM Pk Volume			20	34	49
Pk Hr Factor			0.563	0.692	0.684	Pk Hr Factor			0.833	0.708	0.766
7 - 9 Volume	0	0	23	58	81	4 - 6 Volume	0	0	37	51	88
7 - 9 Peak Hour			07:30	07:15	07:30	4 - 6 Peak Hour			16:15	16:45	16:45
7 - 9 Pk Volume	0	0	16	36	52	4 - 6 Pk Volume	0	0	20	30	49
Pk Hr Factor	0.000	0.000	0.667	0.692	0.684	Pk Hr Factor	0.000	0.000	0.833	0.750	0.766

Prepared by NDS/ATD

VOLUME

Rhea St E/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_007

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	144	152	296

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		0		1		12:00			1		0		1	
00:15			1		0		1		12:15			1		1		2	
00:30			0		0		0		12:30			0		2		2	
00:45			0	2	0		0	2	12:45			2	4	4	7	6	11
01:00			0		0		0		13:00			0		1		1	
01:15			1		0		1		13:15			1		1		2	
01:30			3		0		3		13:30			2		0		2	
01:45			0	4	0		0	4	13:45			0	3	2	4	2	7
02:00			0		0		0		14:00			1		3		4	
02:15			0		0		0		14:15			0		3		3	
02:30			0		0		0		14:30			1		1		2	
02:45			0		0		0		14:45			2	4	2	9	4	13
03:00			1		1		2		15:00			4		2		6	
03:15			0		0		0		15:15			1		3		4	
03:30			0		0		0		15:30			1		2		3	
03:45			0	1	0	1	0	2	15:45			6	12	0	7	6	19
04:00			0		0		0		16:00			1		1		2	
04:15			0		0		0		16:15			2		5		7	
04:30			0		1		1		16:30			4		9		13	
04:45			0		0	1	0	1	16:45			3	10	5	20	8	30
05:00			0		0		0		17:00			1		5		6	
05:15			0		0		0		17:15			2		2		4	
05:30			3		1		4		17:30			6		10		16	
05:45			3	6	0	1	3	7	17:45			2	11	2	19	4	30
06:00			1		0		1		18:00			3		2		5	
06:15			0		0		0		18:15			5		2		7	
06:30			1		0		1		18:30			1		2		3	
06:45			4	6	0		4	6	18:45			2	11	3	9	5	20
07:00			2		0		2		19:00			6		2		8	
07:15			4		2		6		19:15			2		5		7	
07:30			4		2		6		19:30			1		2		3	
07:45			3	13	1	5	4	18	19:45			3	12	6	15	9	27
08:00			5		2		7		20:00			2		1		3	
08:15			2		1		3		20:15			2		2		4	
08:30			1		2		3		20:30			1		2		3	
08:45			4	12	3	8	7	20	20:45			1	6	1	6	2	12
09:00			1		3		4		21:00			1		1		2	
09:15			3		0		3		21:15			0		1		1	
09:30			4		3		7		21:30			0		2		2	
09:45			2	10	2	8	4	18	21:45			0	1	0	4	0	5
10:00			2		1		3		22:00			1		1		2	
10:15			1		4		5		22:15			1		0		1	
10:30			1		3		4		22:30			0		2		2	
10:45			3	7	5	13	8	20	22:45			0	2	3	6	3	8
11:00			1		1		2		23:00			1		0		1	
11:15			0		3		3		23:15			0		0		0	
11:30			2		2		4		23:30			3		2		5	
11:45			0	3	1	7	1	10	23:45			0	4	0	2	0	6
TOTALS				64		44		108	TOTALS				80		108		188
SPLIT %				59.3%		40.7%		36.5%	SPLIT %				42.6%		57.4%		63.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	144	152	296

AM Peak Hour			07:15	10:00	07:15	PM Peak Hour			17:30	16:15	16:15
AM Pk Volume			16	13	23	PM Pk Volume			16	24	34
Pk Hr Factor			0.800	0.650	0.821	Pk Hr Factor			0.667	0.667	0.654
7 - 9 Volume	0	0	25	13	38	4 - 6 Volume	0	0	21	39	60
7 - 9 Peak Hour			07:15	08:00	07:15	4 - 6 Peak Hour			16:45	16:15	16:15
7 - 9 Pk Volume	0	0	16	8	23	4 - 6 Pk Volume	0	0	12	24	34
Pk Hr Factor	0.000	0.000	0.800	0.667	0.821	Pk Hr Factor	0.000	0.000	0.500	0.667	0.654

Prepared by NDS/ATD

VOLUME

Esther St E/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_008

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	258	465	723

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		2		2		12:00			2		6		8	
00:15			0		3		3		12:15			2		3		5	
00:30			1		0		1		12:30			3		5		8	
00:45			2	3	1	6	3	9	12:45			2	9	9	23	11	32
01:00			0		1		1		13:00			4		4		8	
01:15			0		2		2		13:15			2		2		4	
01:30			1		0		1		13:30			5		2		7	
01:45			0	1	0	3	0	4	13:45			2	13	6	14	8	27
02:00			0		0		0		14:00			5		12		17	
02:15			0		0		0		14:15			19		5		24	
02:30			1		0		1		14:30			3		5		8	
02:45			0	1	0		0	1	14:45			7	34	10	32	17	66
03:00			0		0		0		15:00			9		9		18	
03:15			0		1		1		15:15			10		4		14	
03:30			0		0		0		15:30			3		9		12	
03:45			0		0	1	0	1	15:45			4	26	9	31	13	57
04:00			0		0		0		16:00			4		7		11	
04:15			4		2		6		16:15			2		12		14	
04:30			0		2		2		16:30			2		6		8	
04:45			0	4	0	4	0	8	16:45			3	11	11	36	14	47
05:00			1		1		2		17:00			5		7		12	
05:15			0		3		3		17:15			2		8		10	
05:30			0		0		0		17:30			6		16		22	
05:45			0	1	3	7	3	8	17:45			10	23	16	47	26	70
06:00			2		6		8		18:00			2		12		14	
06:15			1		4		5		18:15			2		9		11	
06:30			3		4		7		18:30			5		14		19	
06:45			3	9	6	20	9	29	18:45			7	16	6	41	13	57
07:00			3		3		6		19:00			6		4		10	
07:15			5		13		18		19:15			4		6		10	
07:30			6		16		22		19:30			4		5		9	
07:45			4	18	5	37	9	55	19:45			3	17	5	20	8	37
08:00			5		5		10		20:00			3		6		9	
08:15			3		10		13		20:15			2		3		5	
08:30			5		7		12		20:30			1		8		9	
08:45			4	17	11	33	15	50	20:45			2	8	3	20	5	28
09:00			4		4		8		21:00			2		6		8	
09:15			1		3		4		21:15			4		4		8	
09:30			2		7		9		21:30			2		3		5	
09:45			1	8	2	16	3	24	21:45			1	9	5	18	6	27
10:00			3		5		8		22:00			3		4		7	
10:15			3		5		8		22:15			4		3		7	
10:30			0		2		2		22:30			2		3		5	
10:45			5	11	6	18	11	29	22:45			0	9	2	12	2	21
11:00			2		6		8		23:00			2		2		4	
11:15			0		6		6		23:15			1		2		3	
11:30			2		4		6		23:30			0		3		3	
11:45			3	7	2	18	5	25	23:45			0	3	1	8	1	11
TOTALS				80		163		243	TOTALS				178		302		480
SPLIT %				32.9%		67.1%		33.6%	SPLIT %				37.1%		62.9%		66.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	258	465	723

AM Peak Hour			07:15	07:15	07:15	PM Peak Hour			14:15	17:30	17:30
AM Pk Volume			20	39	59	PM Pk Volume			38	53	73
Pk Hr Factor			0.833	0.609	0.670	Pk Hr Factor			0.500	0.828	0.702
7 - 9 Volume	0	0	35	70	105	4 - 6 Volume	0	0	34	83	117
7 - 9 Peak Hour			07:15	07:15	07:15	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	20	39	59	4 - 6 Pk Volume	0	0	23	47	70
Pk Hr Factor	0.000	0.000	0.833	0.609	0.670	Pk Hr Factor	0.000	0.000	0.575	0.734	0.673

Prepared by NDS/ATD

VOLUME

15th St E/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_009

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	211	433	644

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		0		0		12:00			4		3		7	
00:15			0		0		0		12:15			8		3		11	
00:30			0		0		0		12:30			12		7		19	
00:45			0		0		0		12:45			3	27	10	23	13	50
01:00			0		0		0		13:00			1		7		8	
01:15			0		1		1		13:15			6		2		8	
01:30			1		0		1		13:30			2		3		5	
01:45			0	1	1	2	1	3	13:45			1	10	3	15	4	25
02:00			0		1		1		14:00			2		8		10	
02:15			0		0		0		14:15			2		2		4	
02:30			0		0		0		14:30			4		7		11	
02:45			1	1	0	1	1	2	14:45			3	11	16	33	19	44
03:00			0		0		0		15:00			6		11		17	
03:15			0		0		0		15:15			3		7		10	
03:30			2		0		2		15:30			2		10		12	
03:45			0	2	0		0	2	15:45			7	18	9	37	16	55
04:00			0		1		1		16:00			13		12		25	
04:15			0		2		2		16:15			7		9		16	
04:30			0		3		3		16:30			3		15		18	
04:45			1	1	1	7	2	8	16:45			5	28	5	41	10	69
05:00			0		1		1		17:00			2		12		14	
05:15			0		0		0		17:15			2		6		8	
05:30			0		2		2		17:30			5		6		11	
05:45			0		3	6	3	6	17:45			4	13	6	30	10	43
06:00			1		5		6		18:00			3		4		7	
06:15			1		5		6		18:15			3		8		11	
06:30			0		5		5		18:30			2		3		5	
06:45			2	4	9	24	11	28	18:45			1	9	3	18	4	27
07:00			1		4		5		19:00			2		8		10	
07:15			1		12		13		19:15			0		3		3	
07:30			0		31		31		19:30			1		4		5	
07:45			4	6	14	61	18	67	19:45			0	3	3	18	3	21
08:00			13		9		22		20:00			2		2		4	
08:15			2		6		8		20:15			1		1		2	
08:30			2		3		5		20:30			1		9		10	
08:45			2	19	6	24	8	43	20:45			2	6	4	16	6	22
09:00			1		4		5		21:00			0		1		1	
09:15			1		4		5		21:15			1		3		4	
09:30			2		2		4		21:30			1		5		6	
09:45			4	8	4	14	8	22	21:45			0	2	5	14	5	16
10:00			1		3		4		22:00			1		5		6	
10:15			3		5		8		22:15			0		0		0	
10:30			3		4		7		22:30			1		3		4	
10:45			3	10	7	19	10	29	22:45			0	2	0	8	0	10
11:00			3		7		10		23:00			1		1		2	
11:15			13		3		16		23:15			1		0		1	
11:30			9		4		13		23:30			1		1		2	
11:45			2	27	5	19	7	46	23:45			0	3	1	3	1	6
TOTALS				79		177		256	TOTALS				132		256		388
SPLIT %				30.9%		69.1%		39.8%	SPLIT %				34.0%		66.0%		60.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	211	433	644

AM Peak Hour			10:45	07:15	07:15	PM Peak Hour			15:45	15:45	15:45
AM Pk Volume			28	66	84	PM Pk Volume			30	45	75
Pk Hr Factor			0.538	0.532	0.677	Pk Hr Factor			0.577	0.750	0.750
7 - 9 Volume	0	0	25	85	110	4 - 6 Volume	0	0	41	71	112
7 - 9 Peak Hour			07:45	07:15	07:15	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	21	66	84	4 - 6 Pk Volume	0	0	28	41	69
Pk Hr Factor	0.000	0.000	0.404	0.532	0.677	Pk Hr Factor	0.000	0.000	0.538	0.683	0.690

Prepared by NDS/ATD

VOLUME

15th St W/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_010

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	437	374	811

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		2		3		12:00			8		3		11	
00:15			1		1		2		12:15			4		4		8	
00:30			1		1		2		12:30			6		5		11	
00:45			0	3	0	4	0	7	12:45			9	27	5	17	14	44
01:00			2		0		2		13:00			4		2		6	
01:15			2		0		2		13:15			6		2		8	
01:30			0		0		0		13:30			11		10		21	
01:45			0	4	1	1	1	5	13:45			8	29	3	17	11	46
02:00			2		0		2		14:00			8		3		11	
02:15			0		0		0		14:15			10		7		17	
02:30			0		0		0		14:30			9		2		11	
02:45			1	3	0		1	3	14:45			16	43	8	20	24	63
03:00			0		0		0		15:00			6		9		15	
03:15			0		0		0		15:15			9		13		22	
03:30			1		0		1		15:30			10		16		26	
03:45			1	2	0		1	2	15:45			9	34	10	48	19	82
04:00			1		0		1		16:00			8		15		23	
04:15			0		0		0		16:15			3		6		9	
04:30			0		0		0		16:30			9		11		20	
04:45			0	1	0		0	1	16:45			7	27	7	39	14	66
05:00			0		0		0		17:00			12		18		30	
05:15			0		0		0		17:15			5		9		14	
05:30			5		2		7		17:30			3		6		9	
05:45			4	9	0	2	4	11	17:45			6	26	8	41	14	67
06:00			3		0		3		18:00			5		8		13	
06:15			3		0		3		18:15			6		4		10	
06:30			2		0		2		18:30			8		12		20	
06:45			4	12	2	2	6	14	18:45			5	24	4	28	9	52
07:00			7		1		8		19:00			4		6		10	
07:15			7		2		9		19:15			4		3		7	
07:30			14		2		16		19:30			7		4		11	
07:45			16	44	1	6	17	50	19:45			5	20	7	20	12	40
08:00			4		2		6		20:00			2		4		6	
08:15			5		8		13		20:15			5		2		7	
08:30			4		6		10		20:30			1		3		4	
08:45			3	16	3	19	6	35	20:45			3	11	3	12	6	23
09:00			6		6		12		21:00			1		2		3	
09:15			3		10		13		21:15			2		2		4	
09:30			6		6		12		21:30			4		1		5	
09:45			9	24	8	30	17	54	21:45			4	11	5	10	9	21
10:00			3		8		11		22:00			3		3		6	
10:15			7		10		17		22:15			4		4		8	
10:30			8		6		14		22:30			1		1		2	
10:45			5	23	3	27	8	50	22:45			2	10	0	8	2	18
11:00			12		4		16		23:00			2		1		3	
11:15			3		6		9		23:15			3		1		4	
11:30			7		3		10		23:30			1		0		1	
11:45			6	28	8	21	14	49	23:45			0	6	0	2	0	8
TOTALS				169		112		281	TOTALS				268		262		530
SPLIT %				60.1%		39.9%		34.6%	SPLIT %				50.6%		49.4%		65.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	437	374	811

AM Peak Hour			07:00	09:15	09:45	PM Peak Hour			14:00	15:15	15:15
AM Pk Volume			44	32	59	PM Pk Volume			43	54	90
Pk Hr Factor			0.688	0.800	0.868	Pk Hr Factor			0.672	0.844	0.865
7 - 9 Volume	0	0	60	25	85	4 - 6 Volume	0	0	53	80	133
7 - 9 Peak Hour			07:00	08:00	07:30	4 - 6 Peak Hour			16:30	16:30	16:30
7 - 9 Pk Volume	0	0	44	19	52	4 - 6 Pk Volume	0	0	33	45	78
Pk Hr Factor	0.000	0.000	0.688	0.594	0.765	Pk Hr Factor	0.000	0.000	0.688	0.625	0.650

Prepared by NDS/ATD

VOLUME

11th St E/o Long Beach Blvd

Day: Tuesday
Date: 1/14/2014

City: Long Beach
Project #: CA14_5011_011

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	548	921	1,469

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		4		5		12:00			11		18		29	
00:15			0		2		2		12:15			9		15		24	
00:30			1		2		3		12:30			13		18		31	
00:45			0	2	0	8	0	10	12:45			15	48	17	68	32	116
01:00			0		0		0		13:00			8		23		31	
01:15			1		0		1		13:15			11		18		29	
01:30			0		0		0		13:30			10		14		24	
01:45			0	1	0		0	1	13:45			8	37	23	78	31	115
02:00			1		0		1		14:00			10		15		25	
02:15			0		1		1		14:15			11		11		22	
02:30			0		3		3		14:30			13		28		41	
02:45			0	1	1	5	1	6	14:45			13	47	27	81	40	128
03:00			1		0		1		15:00			17		24		41	
03:15			0		0		0		15:15			20		25		45	
03:30			0		0		0		15:30			8		10		18	
03:45			1	2	0		1	2	15:45			9	54	18	77	27	131
04:00			3		1		4		16:00			11		19		30	
04:15			2		0		2		16:15			5		10		15	
04:30			0		0		0		16:30			14		17		31	
04:45			0	5	2	3	2	8	16:45			20	50	27	73	47	123
05:00			0		0		0		17:00			10		18		28	
05:15			0		2		2		17:15			13		16		29	
05:30			1		2		3		17:30			5		16		21	
05:45			3	4	0	4	3	8	17:45			8	36	20	70	28	106
06:00			6		4		10		18:00			9		14		23	
06:15			5		6		11		18:15			7		19		26	
06:30			0		5		5		18:30			3		9		12	
06:45			3	14	3	18	6	32	18:45			5	24	8	50	13	74
07:00			3		14		17		19:00			4		26		30	
07:15			7		11		18		19:15			7		15		22	
07:30			4		11		15		19:30			8		7		15	
07:45			3	17	14	50	17	67	19:45			7	26	12	60	19	86
08:00			6		6		12		20:00			7		9		16	
08:15			2		7		9		20:15			3		6		9	
08:30			5		12		17		20:30			4		5		9	
08:45			6	19	10	35	16	54	20:45			3	17	10	30	13	47
09:00			7		9		16		21:00			2		4		6	
09:15			9		15		24		21:15			2		16		18	
09:30			10		8		18		21:30			3		4		7	
09:45			10	36	12	44	22	80	21:45			2	9	3	27	5	36
10:00			10		9		19		22:00			2		5		7	
10:15			13		14		27		22:15			1		4		5	
10:30			8		5		13		22:30			2		2		4	
10:45			14	45	16	44	30	89	22:45			2	7	2	13	4	20
11:00			12		16		28		23:00			0		3		3	
11:15			9		16		25		23:15			2		0		2	
11:30			11		17		28		23:30			2		6		8	
11:45			10	42	21	70	31	112	23:45			1	5	4	13	5	18
TOTALS				188		281		469	TOTALS				360		640		1000
SPLIT %				40.1%		59.9%		31.9%	SPLIT %				36.0%		64.0%		68.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	548	921	1,469

AM Peak Hour			10:15	11:15	11:45	PM Peak Hour			14:30	14:30	14:30
AM Pk Volume			47	72	115	PM Pk Volume			63	104	167
Pk Hr Factor			0.839	0.857	0.927	Pk Hr Factor			0.788	0.929	0.928
7 - 9 Volume	0	0	36	85	121	4 - 6 Volume	0	0	86	143	229
7 - 9 Peak Hour			07:15	07:00	07:00	4 - 6 Peak Hour			16:30	16:30	16:30
7 - 9 Pk Volume	0	0	20	50	67	4 - 6 Pk Volume	0	0	57	78	135
Pk Hr Factor	0.000	0.000	0.714	0.893	0.931	Pk Hr Factor	0.000	0.000	0.713	0.722	0.718

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-001
N/S Street: Long Beach Blvd
E/W Street: Spring St
DATE: 5/17/2012 DAY: Thursday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	1	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	1
7:30 AM	0	0	2	2	0	2	0	0
7:45 AM	0	1	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	1
8:15 AM	4	1	3	0	1	2	2	2
8:30 AM	1	0	0	0	2	0	0	0
8:45 AM	0	0	1	0	1	0	1	0
TOTALS	**5**	**3**	**6**	**2**	**4**	**4**	**4**	**7**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	1	0	0	2
8:30 AM	0	1	0	0	0	0	0	2
8:45 AM	1	0	0	0	0	0	0	0
TOTALS	**1**	**2**	**2**	**0**	**2**	**0**	**1**	**4**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	2	1	0	1	0	0	1
4:15 PM	0	1	0	0	2	1	4	3
4:30 PM	0	0	0	3	0	0	4	0
4:45 PM	0	1	0	1	0	1	2	2
5:00 PM	0	3	0	0	0	0	0	1
5:15 PM	1	0	0	2	1	1	2	3
5:30 PM	2	1	5	0	0	0	2	2
5:45 PM	0	0	0	0	0	0	0	1
TOTALS	**3**	**8**	**6**	**6**	**4**	**3**	**14**	**13**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	1	1	0	0
4:15 PM	0	0	1	0	0	0	0	1
4:30 PM	0	1	0	0	1	0	0	1
4:45 PM	0	0	1	1	0	0	0	0
5:00 PM	1	0	0	0	1	1	0	1
5:15 PM	0	0	0	0	1	0	0	2
5:30 PM	1	0	1	0	0	0	0	2
5:45 PM	0	0	1	0	1	0	0	2
TOTALS	**2**	**1**	**4**	**1**	**5**	**2**	**0**	**9**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-002
N/S Street: Pacific Ave
E/W Street: Willow St
DATE: 5/17/2012
CITY: Long Beach

DAY: Thursday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	5	1	1	1	6	3	6	1
7:15 AM	3	5	1	0	19	2	4	2
7:30 AM	4	7	8	6	11	3	3	2
7:45 AM	6	8	3	3	3	6	3	1
8:00 AM	3	0	2	3	2	2	2	5
8:15 AM	8	2	6	1	2	1	2	2
8:30 AM	6	7	3	4	6	2	2	1
8:45 AM	5	12	3	4	5	5	3	9
TOTALS	**40**	**42**	**27**	**22**	**54**	**24**	**25**	**23**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	2	0	1	1	0	0
7:15 AM	0	0	2	2	2	1	0	0
7:30 AM	1	2	0	0	0	0	0	0
7:45 AM	0	1	2	0	2	1	0	0
8:00 AM	1	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	2	0	0	0
8:30 AM	0	1	2	0	2	1	1	1
8:45 AM	1	0	0	0	0	1	0	2
TOTALS	**3**	**4**	**9**	**2**	**9**	**5**	**1**	**3**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	4	7	8	5	5	6	2	3
4:15 PM	5	4	5	6	1	1	4	6
4:30 PM	6	5	2	5	4	4	0	2
4:45 PM	3	5	7	1	5	7	2	2
5:00 PM	4	9	5	3	4	3	1	4
5:15 PM	8	9	4	2	11	1	4	6
5:30 PM	5	6	2	4	2	5	6	7
5:45 PM	2	8	5	4	5	3	5	4
TOTALS	**37**	**53**	**38**	**30**	**37**	**30**	**24**	**34**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	4	2	0	3	0	0	1
4:15 PM	0	0	1	1	0	0	0	0
4:30 PM	2	0	0	0	0	1	1	1
4:45 PM	0	2	3	2	3	0	2	4
5:00 PM	0	0	4	1	4	0	0	0
5:15 PM	0	0	0	2	0	3	0	2
5:30 PM	0	0	0	0	0	0	0	1
5:45 PM	1	1	1	0	1	0	0	1
TOTALS	**3**	**7**	**11**	**6**	**11**	**4**	**3**	**10**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-003
N/S Street: Long Beach Blvd
E/W Street: Willow St
DATE: 5/17/2012 DAY: Thursday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	3	2	10	3	3	10	9	7
7:15 AM	1	2	15	11	5	9	21	5
7:30 AM	3	9	10	23	26	12	20	9
7:45 AM	5	18	7	5	12	10	29	8
8:00 AM	1	4	13	7	5	5	5	14
8:15 AM	2	4	9	0	1	6	2	7
8:30 AM	7	7	10	10	5	8	14	8
8:45 AM	3	4	7	5	2	8	2	8
TOTALS	**25**	**50**	**81**	**64**	**59**	**68**	**102**	**66**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	1	1	0	1	1	0
7:15 AM	0	0	3	3	1	0	2	1
7:30 AM	1	1	1	1	3	0	1	0
7:45 AM	0	1	0	1	1	0	0	0
8:00 AM	0	0	0	1	1	0	1	0
8:15 AM	1	0	1	2	0	0	2	1
8:30 AM	0	1	0	0	0	0	1	2
8:45 AM	0	0	1	2	0	0	1	1
TOTALS	**2**	**3**	**7**	**11**	**6**	**1**	**9**	**5**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	18	10	8	9	4	12	8	19
4:15 PM	6	8	6	17	6	13	9	13
4:30 PM	9	9	10	13	8	11	10	15
4:45 PM	1	4	5	10	7	7	5	10
5:00 PM	4	5	8	1	7	3	8	11
5:15 PM	6	6	7	12	4	9	5	8
5:30 PM	5	5	3	5	1	7	10	17
5:45 PM	11	8	10	9	5	3	6	3
TOTALS	**60**	**55**	**57**	**76**	**42**	**65**	**61**	**96**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	2	1	2	1	0	1	0	0
4:15 PM	0	4	1	0	1	0	1	3
4:30 PM	2	0	0	0	2	1	0	1
4:45 PM	3	3	0	2	1	0	1	2
5:00 PM	0	1	1	1	1	1	0	5
5:15 PM	0	5	0	0	6	2	1	3
5:30 PM	0	1	0	3	3	1	2	4
5:45 PM	1	0	0	0	2	1	1	1
TOTALS	**8**	**15**	**4**	**7**	**16**	**7**	**6**	**19**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-004
N/S Street: Atlantic Ave
E/W Street: Willow St
DATE: 5/17/2012
CITY: Long Beach

DAY: Thursday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	4	4	7	5	2	2	4
7:15 AM	0	1	6	1	1	6	1	3
7:30 AM	0	3	4	5	6	1	1	1
7:45 AM	0	3	3	2	3	1	2	2
8:00 AM	3	0	1	0	1	5	1	0
8:15 AM	1	1	8	1	1	1	0	0
8:30 AM	1	3	4	6	1	3	1	0
8:45 AM	2	2	2	2	2	2	1	3
TOTALS	**7**	**17**	**32**	**24**	**20**	**21**	**9**	**13**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	1	0	1	0	0	0
7:15 AM	0	0	2	0	0	0	0	1
7:30 AM	0	2	2	0	0	1	0	0
7:45 AM	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	2	1	0	0	0
8:30 AM	1	1	1	0	4	0	0	0
8:45 AM	0	0	1	0	1	0	0	1
TOTALS	**2**	**3**	**7**	**3**	**7**	**1**	**0**	**2**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	8	5	7	4	4	1	2	4
4:15 PM	0	2	2	6	2	3	5	11
4:30 PM	8	2	3	2	2	2	1	6
4:45 PM	6	4	2	2	0	5	2	5
5:00 PM	2	4	4	1	0	2	3	6
5:15 PM	2	5	5	2	1	0	0	2
5:30 PM	6	1	4	5	0	9	1	2
5:45 PM	5	4	4	3	2	1	5	5
TOTALS	**37**	**27**	**31**	**25**	**11**	**23**	**19**	**41**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	3	0	0	1	0	0
4:15 PM	1	1	0	1	0	1	0	1
4:30 PM	1	0	2	0	0	0	1	0
4:45 PM	2	0	0	1	0	1	0	0
5:00 PM	0	0	0	0	0	1	0	0
5:15 PM	0	2	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	1	1
TOTALS	**4**	**3**	**6**	**2**	**0**	**4**	**2**	**4**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-005
N/S Street: Long Beach Blvd
E/W Street: Hill St
DATE: 5/17/2012 DAY: Thursday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	4	3	9	4	1	2	5	6
7:15 AM	1	0	8	4	1	0	4	0
7:30 AM	11	2	7	3	4	3	6	4
7:45 AM	16	9	0	3	2	0	3	3
8:00 AM	4	9	1	2	3	4	1	3
8:15 AM	5	5	3	2	1	0	2	3
8:30 AM	3	7	3	0	1	2	1	8
8:45 AM	2	3	0	1	1	0	2	1
TOTALS	**46**	**38**	**31**	**19**	**14**	**11**	**24**	**28**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	1	1	0	0	0	0	1
7:30 AM	1	0	1	0	0	2	2	3
7:45 AM	0	1	0	0	0	0	0	0
8:00 AM	1	0	0	0	1	0	1	0
8:15 AM	0	1	1	0	0	0	0	2
8:30 AM	0	0	2	1	0	0	1	3
8:45 AM	0	0	0	1	2	2	2	0
TOTALS	**2**	**3**	**5**	**2**	**3**	**4**	**6**	**9**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	10	11	8	6	2	4	2	8
4:15 PM	8	4	4	3	4	2	3	2
4:30 PM	14	10	10	0	2	5	2	2
4:45 PM	4	5	9	7	7	2	7	6
5:00 PM	2	7	4	10	0	1	1	1
5:15 PM	10	9	1	13	1	0	5	7
5:30 PM	8	12	2	12	1	6	2	7
5:45 PM	2	11	3	4	6	2	5	1
TOTALS	**58**	**69**	**41**	**55**	**23**	**22**	**27**	**34**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	1	4	1	1	1	1	3
4:15 PM	0	2	1	1	1	1	1	3
4:30 PM	0	0	0	1	4	2	0	1
4:45 PM	1	0	3	0	2	0	1	1
5:00 PM	1	3	0	1	2	0	1	4
5:15 PM	1	0	0	0	2	0	0	1
5:30 PM	1	0	2	1	4	4	1	6
5:45 PM	2	2	2	0	0	0	0	0
TOTALS	**6**	**8**	**12**	**5**	**16**	**8**	**5**	**19**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-006
N/S Street: Pacific Ave
E/W Street: Pacific Coast Hwy
DATE: 5/17/2012 DAY: Thursday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	2	6	18	18	4	6	24	7
7:15 AM	4	10	13	10	6	6	10	16
7:30 AM	6	6	30	13	8	17	10	16
7:45 AM	11	12	20	13	27	14	8	14
8:00 AM	4	12	10	11	5	7	13	10
8:15 AM	4	8	15	5	2	1	7	6
8:30 AM	1	6	18	11	6	1	6	12
8:45 AM	10	8	15	8	8	3	4	8
TOTALS	**42**	**68**	**139**	**89**	**66**	**55**	**82**	**89**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	1	0	0	0	1
7:15 AM	0	3	0	1	0	0	1	1
7:30 AM	1	2	1	1	2	2	0	3
7:45 AM	1	0	2	2	2	0	0	1
8:00 AM	0	1	2	1	0	0	0	0
8:15 AM	0	0	3	2	2	0	1	2
8:30 AM	1	2	3	0	2	1	0	1
8:45 AM	1	2	0	4	4	3	0	2
TOTALS	**4**	**10**	**11**	**12**	**12**	**6**	**2**	**11**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	7	6	18	18	7	3	8	6
4:15 PM	10	6	24	21	4	3	15	9
4:30 PM	1	18	28	15	12	10	14	7
4:45 PM	4	19	21	5	5	2	9	11
5:00 PM	13	6	18	23	8	7	18	10
5:15 PM	8	10	29	21	8	14	13	4
5:30 PM	6	16	19	20	11	4	20	8
5:45 PM	11	9	8	12	4	6	14	9
TOTALS	**60**	**90**	**165**	**135**	**59**	**49**	**111**	**64**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	1	0	4	1	5	3	6	0
4:15 PM	1	0	4	7	0	0	1	3
4:30 PM	2	1	3	1	2	1	0	0
4:45 PM	2	0	4	1	4	0	4	2
5:00 PM	2	2	3	3	0	0	5	4
5:15 PM	0	2	2	2	2	2	2	2
5:30 PM	1	2	5	3	3	1	0	7
5:45 PM	3	1	0	0	1	2	2	2
TOTALS	**12**	**8**	**25**	**18**	**17**	**9**	**20**	**20**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-007
N/S Street: Long Beach Blvd
E/W Street: Pacific Coast Hwy
DATE: 5/17/2012 DAY: Thursday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	12	8	38	20	22	16	5	19
7:15 AM	19	13	106	71	32	59	10	28
7:30 AM	14	8	50	33	13	31	8	18
7:45 AM	3	3	35	22	22	15	20	14
8:00 AM	3	2	37	25	22	15	14	15
8:15 AM	10	13	27	27	17	14	15	16
8:30 AM	3	11	33	20	12	13	13	14
8:45 AM	4	5	41	24	11	8	2	10
TOTALS	**68**	**63**	**367**	**242**	**151**	**171**	**87**	**134**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	3	1	0	0	0	0
7:15 AM	1	2	2	4	3	1	1	1
7:30 AM	0	2	2	5	0	2	1	1
7:45 AM	0	0	4	1	1	1	0	1
8:00 AM	1	0	2	0	1	0	1	1
8:15 AM	0	2	2	2	1	0	2	0
8:30 AM	1	1	2	2	1	1	0	1
8:45 AM	2	0	0	1	3	1	0	0
TOTALS	**5**	**7**	**17**	**16**	**10**	**6**	**5**	**5**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	2	5	47	50	30	20	11	13
4:15 PM	7	18	51	35	17	39	8	15
4:30 PM	3	8	38	40	14	12	24	18
4:45 PM	9	5	67	50	16	19	17	12
5:00 PM	3	4	35	50	9	38	26	31
5:15 PM	9	5	40	56	10	25	13	20
5:30 PM	5	3	45	32	18	10	19	16
5:45 PM	6	10	62	60	17	23	31	25
TOTALS	**44**	**58**	**385**	**373**	**131**	**186**	**149**	**150**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	2	7	3	3	0	0	1
4:15 PM	1	1	4	2	0	4	2	1
4:30 PM	1	2	2	0	6	3	1	1
4:45 PM	1	0	3	1	2	0	1	0
5:00 PM	1	1	4	2	5	0	0	0
5:15 PM	0	1	3	2	1	1	0	2
5:30 PM	0	4	3	2	2	5	2	2
5:45 PM	1	1	3	2	1	2	0	2
TOTALS	**5**	**12**	**29**	**14**	**20**	**15**	**6**	**9**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-008
N/S Street: Atlantic Ave
E/W Street: Pacific Coast Hwy
DATE: 5/17/2012 DAY: Thursday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	18	5	17	5	13	20	8	15
7:15 AM	11	15	17	12	8	17	1	33
7:30 AM	10	12	8	12	19	100	7	39
7:45 AM	25	11	13	10	3	60	7	39
8:00 AM	9	4	23	1	10	2	8	8
8:15 AM	2	8	8	1	7	2	7	5
8:30 AM	5	5	3	3	6	3	3	3
8:45 AM	1	8	9	4	5	6	0	2
TOTALS	**81**	**68**	**98**	**48**	**71**	**210**	**41**	**144**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	0	3	1	0	3	0	0
7:15 AM	0	1	0	0	1	1	0	1
7:30 AM	0	1	2	1	0	4	0	2
7:45 AM	0	1	0	3	0	1	1	0
8:00 AM	0	1	3	0	0	1	0	0
8:15 AM	0	0	3	1	4	3	0	0
8:30 AM	0	1	1	0	3	0	0	0
8:45 AM	0	2	0	1	1	0	1	1
TOTALS	**1**	**7**	**12**	**7**	**9**	**13**	**2**	**4**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	9	3	9	20	20	5	17	7
4:15 PM	14	8	10	4	9	6	10	14
4:30 PM	9	7	8	15	15	10	7	3
4:45 PM	13	3	11	7	2	0	5	7
5:00 PM	4	7	9	10	9	9	5	15
5:15 PM	7	8	3	2	8	5	5	5
5:30 PM	7	3	6	7	8	2	5	5
5:45 PM	3	4	3	4	20	15	4	3
TOTALS	**66**	**43**	**59**	**69**	**91**	**52**	**58**	**59**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	9	1	1	2	0	1
4:15 PM	1	4	2	1	1	1	0	0
4:30 PM	2	2	3	1	3	1	1	0
4:45 PM	1	1	3	2	2	3	0	0
5:00 PM	0	5	2	1	3	3	1	1
5:15 PM	1	1	2	0	6	0	1	3
5:30 PM	0	5	4	0	4	7	1	0
5:45 PM	1	1	4	1	3	0	0	1
TOTALS	**6**	**19**	**29**	**7**	**23**	**17**	**4**	**6**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-009
N/S Street: Pacific Ave
E/W Street: Anaheim St
DATE: 5/17/2012
CITY: Long Beach

DAY: Thursday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	11	8	10	2	6	5	4	2
7:15 AM	5	6	6	1	7	2	7	4
7:30 AM	10	7	12	3	17	2	11	4
7:45 AM	6	12	6	6	10	11	10	7
8:00 AM	9	9	6	2	6	1	5	10
8:15 AM	6	3	2	1	3	3	3	2
8:30 AM	12	7	4	2	3	2	3	3
8:45 AM	12	10	6	6	9	4	5	2
TOTALS	**71**	**62**	**52**	**23**	**61**	**30**	**48**	**34**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	2	1	0	0	0	0	1
7:15 AM	0	1	3	0	2	0	0	1
7:30 AM	0	6	0	0	0	1	0	1
7:45 AM	0	0	3	1	2	0	1	0
8:00 AM	1	1	2	0	0	1	1	1
8:15 AM	0	2	0	1	1	0	0	2
8:30 AM	0	2	4	0	1	0	1	1
8:45 AM	0	2	0	0	1	1	1	1
TOTALS	**1**	**16**	**13**	**2**	**7**	**3**	**4**	**8**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	12	9	5	2	12	8	3	3
4:15 PM	10	9	7	13	4	9	10	2
4:30 PM	17	21	5	3	8	3	8	9
4:45 PM	8	14	14	10	11	2	15	7
5:00 PM	6	11	18	6	8	4	9	3
5:15 PM	5	14	11	5	7	0	7	6
5:30 PM	10	15	3	12	11	2	2	1
5:45 PM	8	7	9	9	11	5	9	9
TOTALS	**76**	**100**	**72**	**60**	**72**	**33**	**63**	**40**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	2	4	3	2	1	0	0
4:15 PM	2	1	5	1	2	3	0	2
4:30 PM	0	2	1	2	0	0	2	3
4:45 PM	1	0	4	1	3	1	1	1
5:00 PM	2	0	3	3	2	2	2	2
5:15 PM	0	1	0	0	1	0	3	0
5:30 PM	1	0	0	2	1	0	3	7
5:45 PM	1	2	1	0	2	1	1	1
TOTALS	**7**	**8**	**18**	**12**	**13**	**8**	**12**	**16**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-010
N/S Street: Long Beach Blvd
E/W Street: Anaheim St
DATE: 5/17/2012 DAY: Thursday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	7	9	40	26	8	4	15	17
7:15 AM	8	6	45	26	11	11	12	27
7:30 AM	9	5	66	35	37	10	31	15
7:45 AM	21	9	48	29	15	10	25	12
8:00 AM	8	13	41	26	17	12	20	24
8:15 AM	6	0	47	27	13	16	24	13
8:30 AM	5	2	30	13	10	14	5	12
8:45 AM	6	6	50	21	13	6	16	18
TOTALS	**70**	**50**	**367**	**203**	**124**	**83**	**148**	**138**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	2	2	1	0	0	0	1
7:15 AM	0	0	2	4	1	2	2	0
7:30 AM	2	1	3	2	3	1	3	0
7:45 AM	0	1	2	1	2	2	1	2
8:00 AM	0	1	3	3	3	5	1	1
8:15 AM	1	4	3	4	2	1	1	4
8:30 AM	2	2	3	0	1	0	0	6
8:45 AM	1	0	0	1	2	2	0	0
TOTALS	**6**	**11**	**18**	**16**	**14**	**13**	**8**	**14**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	6	7	45	40	12	13	21	18
4:15 PM	5	7	56	36	19	12	24	16
4:30 PM	6	5	56	39	20	13	19	20
4:45 PM	8	10	52	34	5	19	29	20
5:00 PM	11	6	45	37	10	16	20	12
5:15 PM	7	19	37	24	8	16	22	22
5:30 PM	4	9	64	40	18	14	26	22
5:45 PM	13	1	61	47	9	23	36	18
TOTALS	**60**	**64**	**416**	**297**	**101**	**126**	**197**	**148**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	3	4	5	5	3	1	1	3
4:15 PM	2	3	4	1	0	2	0	4
4:30 PM	2	0	7	2	1	0	1	3
4:45 PM	1	0	3	3	3	3	5	1
5:00 PM	1	1	4	2	8	3	0	0
5:15 PM	0	0	5	3	2	0	1	3
5:30 PM	0	2	6	3	2	1	4	1
5:45 PM	0	2	1	5	2	7	1	2
TOTALS	**9**	**12**	**35**	**24**	**21**	**17**	**13**	**17**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 12-5192-011
N/S Street: Atlantic Ave
E/W Street: Anaheim St
DATE: 5/17/2012
CITY: Long Beach

DAY: Thursday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	6	6	12	3	11	9	11	5
7:15 AM	16	8	24	5	27	8	8	1
7:30 AM	13	7	16	9	52	7	16	5
7:45 AM	10	12	10	12	20	7	8	5
8:00 AM	11	6	6	4	6	6	4	18
8:15 AM	5	6	12	3	14	3	6	8
8:30 AM	9	6	6	3	6	6	4	3
8:45 AM	8	8	5	1	6	2	2	2
TOTALS	**78**	**59**	**91**	**40**	**142**	**48**	**59**	**47**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	1	0	1	2	1	1	1
7:15 AM	0	0	3	2	5	1	0	0
7:30 AM	0	2	1	0	1	1	1	2
7:45 AM	0	1	3	1	3	0	3	3
8:00 AM	0	0	1	1	1	1	1	3
8:15 AM	0	4	3	0	2	1	0	1
8:30 AM	2	1	1	0	2	0	0	1
8:45 AM	1	0	1	1	1	2	1	0
TOTALS	**4**	**9**	**13**	**6**	**17**	**7**	**7**	**11**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	21	10	21	9	17	10	5	11
4:15 PM	12	6	15	5	10	16	4	2
4:30 PM	11	9	15	9	11	12	7	11
4:45 PM	12	4	13	7	5	15	14	3
5:00 PM	6	4	11	6	9	7	6	10
5:15 PM	9	11	9	5	6	5	3	1
5:30 PM	13	3	21	5	4	7	9	7
5:45 PM	9	4	5	3	3	11	3	5
TOTALS	**93**	**51**	**110**	**49**	**65**	**83**	**51**	**50**

BIKES

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	1	0	3	2	2	1	1	3
4:15 PM	4	1	4	0	5	5	0	0
4:30 PM	0	1	9	4	0	0	2	4
4:45 PM	0	0	3	0	3	1	0	0
5:00 PM	1	2	3	3	4	3	1	1
5:15 PM	2	1	2	2	2	3	2	1
5:30 PM	0	0	2	1	3	0	1	0
5:45 PM	1	2	1	3	1	0	2	1
TOTALS	**9**	**7**	**27**	**15**	**20**	**13**	**9**	**10**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5007-001
N/S Street: Atlantic Ave
E/W Street: I-405 Southbound Ramps
DATE: 1/14/2014 DAY: Tuesday
CITY: Long Beach

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	1	0	2	0
8:30 AM	0	0	0	0	2	1	0	1
8:45 AM	0	0	0	0	1	5	0	0
TOTALS	**0**	**0**	**0**	**0**	**4**	**6**	**4**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0
5:00 PM	0	0	0	0	1	1	0	0
5:15 PM	0	0	0	0	4	0	0	0
5:30 PM	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	1	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**8**	**1**	**0**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	2	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5007-002
N/S Street: Atlantic Ave
E/W Street: Spring St
DATE: 1/14/2014
CITY: Long Beach

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	0	1	0	1
8:00 AM	2	1	0	0	0	0	0	1
8:15 AM	0	0	0	0	1	3	3	0
8:30 AM	0	1	0	0	0	0	0	1
8:45 AM	0	0	1	0	3	1	0	0
TOTALS	**2**	**2**	**1**	**2**	**4**	**5**	**3**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	1	1	0	0	2	0	0
4:15 PM	1	0	0	2	0	2	1	0
4:30 PM	1	0	0	0	0	2	0	0
4:45 PM	0	0	1	1	1	2	0	0
5:00 PM	1	0	0	0	2	0	0	0
5:15 PM	1	0	0	0	0	0	1	0
5:30 PM	1	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**5**	**1**	**2**	**3**	**3**	**8**	**3**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	1	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	0	0	0	1	0
5:30 PM	0	1	0	0	1	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**2**	**0**	**0**	**6**	**0**	**1**	**0**	**0**	**1**	**5**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5007-003
N/S Street: Atlantic Ave
E/W Street: Columbia St
DATE: 1/14/2014
CITY: Long Beach

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	2	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	1
7:30 AM	0	3	0	0	2	0	0	3
7:45 AM	7	2	0	2	1	2	2	0
8:00 AM	5	1	0	1	1	2	3	0
8:15 AM	3	7	2	4	0	2	1	3
8:30 AM	3	2	4	6	0	0	5	4
8:45 AM	7	2	2	2	2	0	2	0
TOTALS	**25**	**18**	**8**	**17**	**7**	**6**	**13**	**11**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	5	5	4	0	2	3	4	0
4:15 PM	4	4	6	2	2	0	0	4
4:30 PM	5	1	5	0	0	5	2	4
4:45 PM	3	3	3	7	3	3	5	10
5:00 PM	7	1	1	3	2	3	2	0
5:15 PM	2	1	2	0	3	0	3	0
5:30 PM	4	4	0	15	0	0	2	1
5:45 PM	5	2	1	5	0	0	1	1
TOTALS	**35**	**21**	**22**	**32**	**12**	**14**	**19**	**20**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	1	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-5007-004
N/S Street: Atlantic Ave
E/W Street: 27th St
DATE: 1/14/2014
CITY: Long Beach

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	2	0	0	0
7:30 AM	2	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	2	0
8:15 AM	0	0	0	1	0	0	0	4
8:30 AM	0	0	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	2
TOTALS	**2**	**0**	**0**	**1**	**3**	**0**	**3**	**8**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	0	0	0	1	1	1	0
4:15 PM	1	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	4	4	1	3
4:45 PM	0	0	0	0	0	0	1	3
5:00 PM	0	0	0	0	4	0	0	2
5:15 PM	0	0	0	2	0	0	1	3
5:30 PM	0	0	0	1	0	0	0	1
5:45 PM	0	0	0	0	0	0	2	1
TOTALS	**1**	**0**	**0**	**3**	**10**	**5**	**6**	**14**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	2	1	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0
TOTALS	**0**	**2**	**0**	**0**	**5**	**2**	**1**	**1**	**0**	**0**	**0**	**0**

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Orange Ave and Pacific Coast Hwy , Long Beach

Date: 6/3/2015

Day: Wednesday

Project #: 15-5350-005

City: Long Beach

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	445 PM

Peak Hour Summary

Southbound Approach (Orange Ave)

	Lanes 1	2	1		
AM	148	452	53	815	AM
NOON	0	0	0	0	NOON
PM	96	598	80	752	PM

Eastbound Approach (Pacific Coast Hwy)

Lanes	AM	NOON	PM
	1302	0	866
1	148	0	100
3	863	0	1292
0	79	0	97

Westbound Approach

Lanes	AM	NOON	PM
0	108	0	115
3	1064	0	701
1	176	0	149
	1125	0	1580

Northbound Approach

				Lanes 1	2	1
AM	707	90	559	209	AM
NOON	0	0	0	0	NOON
PM	844	69	537	208	PM

CONTROL: Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
AM	653	815	
NOON	0	0	
PM	774	752	

West Leg	AM	NOON	PM
	1302	0	866
	1090	0	1489

East Leg	AM	NOON	PM
	1348	0	965
	1125	0	1580

South Leg		
AM	707	858
NOON	0	0
PM	844	814

Total Volume Per Leg

	North Leg	
AM	1468	
NOON	0	
PM	1526	

West Leg	AM	NOON	PM
	2392	0	2355

East Leg	AM	NOON	PM
	2473	0	2545

South Leg	
AM	1565
NOON	0
PM	1658

APPENDIX B: LOS REPORTS

LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	B	xxxxx	0.645	B	xxxxx	0.645	+ 0.000
# 2 Pacific Ave & Willow St	B	xxxxx	0.689	B	xxxxx	0.689	+ 0.000
# 3 Long Beach Blvd & Willow St	C	xxxxx	0.713	C	xxxxx	0.713	+ 0.000
# 4 Atlantic Ave & Willow St	B	xxxxx	0.643	B	xxxxx	0.643	+ 0.000
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.490	A	xxxxx	0.490	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	B	xxxxx	0.646	B	xxxxx	0.646	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	C	xxxxx	0.713	C	xxxxx	0.713	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	B	xxxxx	0.681	B	xxxxx	0.681	+ 0.000
# 9 Pacific Ave & Anaheim St	B	xxxxx	0.608	B	xxxxx	0.608	+ 0.000
# 10 Long Beach Blvd & Anaheim St	A	xxxxx	0.502	A	xxxxx	0.502	+ 0.000
# 11 Atlantic Ave & Anaheim St	C	xxxxx	0.705	C	xxxxx	0.705	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	A	xxxxx	0.583	A	xxxxx	0.583	+ 0.000
# 13 Atlantic Ave & Spring St	C	xxxxx	0.772	C	xxxxx	0.772	+ 0.000
# 14 Atlantic Ave & Columbia St	A	xxxxx	0.521	A	xxxxx	0.521	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.645
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	35	657	145	120	863	142	158	382	46	165	385	89
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	657	145	120	863	142	158	382	46	165	385	89
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	657	145	120	863	142	158	382	46	165	385	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	657	145	120	863	142	158	382	46	165	385	89
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	657	145	120	863	142	158	382	46	165	385	89
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	1.64	0.36	1.00	1.72	0.28	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2621	579	1600	2748	452	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.25	0.08	0.31	0.31	0.10	0.12	0.03	0.10	0.12	0.06
Crit Moves:		****		****			****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.689
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	147	541	121	81	497	87	158	948	155	131	923	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:	147	541	121	81	497	87	158	948	155	131	923	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:	147	541	121	81	497	87	158	948	155	131	923	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	541	121	81	497	87	158	948	155	131	923	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:	147	541	121	81	497	87	158	948	155	131	923	112
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	1.63	0.37	1.00	1.70	0.30	1.00	2.58	0.42	1.00	2.68	0.32
Final Sat.:	1600	2615	585	1600	2723	477	1600	4125	675	1600	4281	519
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.21	0.05	0.18	0.18	0.10	0.23	0.23	0.08	0.22	0.22
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.713
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Long Beach Blvd							Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1	
Volume Module:													
Base Vol:	191	504	95	146	556	159	213	797	126	118	898	95	
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:	191	504	95	146	556	159	213	797	126	118	898	95	
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:	191	504	95	146	556	159	213	797	126	118	898	95	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	191	504	95	146	556	159	213	797	126	118	898	95	
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:	191	504	95	146	556	159	213	797	126	118	898	95	
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	2.52	0.48	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	1600	4039	761	1600	3200	1600	1600	4800	1600	1600	4800	1600	
Capacity Analysis Module:													
Vol/Sat:	0.12	0.12	0.12	0.09	0.17	0.10	0.13	0.17	0.08	0.07	0.19	0.06	
Crit Moves:	****				****		****				****		

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LONG BEACH BLVD SPECIFIC PLAN
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AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.643
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	132	602	102	83	491	77	118	742	72	70	903	201
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:	132	602	102	83	491	77	118	742	72	70	903	201
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:	132	602	102	83	491	77	118	742	72	70	903	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	602	102	83	491	77	118	742	72	70	903	201
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:	132	602	102	83	491	77	118	742	72	70	903	201
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	1.71	0.29	1.00	1.73	0.27	2.00	2.73	0.27	1.00	2.45	0.55
Final Sat.:	1600	2736	464	1600	2766	434	2880	4375	425	1600	3926	874
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.05	0.18	0.18	0.04	0.17	0.17	0.04	0.23	0.23
Crit Moves:		****		****			****				****	

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LONG BEACH BLVD SPECIFIC PLAN
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.490
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	28	679	20	52	736	27	37	96	27	34	99	44
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:	28	679	20	52	736	27	37	96	27	34	99	44
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:	28	679	20	52	736	27	37	96	27	34	99	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	679	20	52	736	27	37	96	27	34	99	44
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:	28	679	20	52	736	27	37	96	27	34	99	44
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	1.94	0.06	1.00	1.93	0.07	0.23	0.60	0.17	0.19	0.56	0.25
Final Sat.:	1600	3108	92	1600	3087	113	370	960	270	307	895	398
Capacity Analysis Module:												
Vol/Sat:	0.02	0.22	0.22	0.03	0.24	0.24	0.02	0.10	0.10	0.02	0.11	0.11
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.646
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	70	381	88	77	484	95	88	810	53	78	1162	116
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:	70	381	88	77	484	95	88	810	53	78	1162	116
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:	70	381	88	77	484	95	88	810	53	78	1162	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	381	88	77	484	95	88	810	53	78	1162	116
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:	70	381	88	77	484	95	88	810	53	78	1162	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	1.62	0.38	1.00	1.67	0.33	1.00	2.82	0.18	1.00	2.73	0.27
Final Sat.:	1600	2600	600	1600	2675	525	1600	4505	295	1600	4364	436
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.15	0.05	0.18	0.18	0.06	0.18	0.18	0.05	0.27	0.27
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.713
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	223	536	53	192	511	92	99	832	82	108	1141	67
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:	223	536	53	192	511	92	99	832	82	108	1141	67
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:	223	536	53	192	511	92	99	832	82	108	1141	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	223	536	53	192	511	92	99	832	82	108	1141	67
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:	223	536	53	192	511	92	99	832	82	108	1141	67
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.73	0.27	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4369	431	1600	4534	266
Capacity Analysis Module:												
Vol/Sat:	0.14	0.17	0.03	0.12	0.16	0.06	0.06	0.19	0.19	0.07	0.25	0.25
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
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AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.681
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	89	580	226	47	585	59	97	762	224	160	1178	88
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:	89	580	226	47	585	59	97	762	224	160	1178	88
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:	89	580	226	47	585	59	97	762	224	160	1178	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	580	226	47	585	59	97	762	224	160	1178	88
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:	89	580	226	47	585	59	97	762	224	160	1178	88
OvlAdjVol:			66									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.82	0.18	1.00	2.32	0.68	1.00	2.79	0.21
Final Sat.:	1600	3200	1600	1600	2907	293	1600	3710	1090	1600	4466	334
Capacity Analysis Module:												
Vol/Sat:	0.06	0.18	0.14	0.03	0.20	0.20	0.06	0.21	0.21	0.10	0.26	0.26
OvlAdjV/S:			0.04									
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.608
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	72	241	39	75	319	40	49	622	62	47	966	59
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:	72	241	39	75	319	40	49	622	62	47	966	59
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:	72	241	39	75	319	40	49	622	62	47	966	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	241	39	75	319	40	49	622	62	47	966	59
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:	72	241	39	75	319	40	49	622	62	47	966	59
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	1.78	0.22	1.00	1.82	0.18	1.00	1.88	0.12
Final Sat.:	1600	2754	446	1600	2843	357	1600	2910	290	1600	3016	184
Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.09	0.05	0.11	0.11	0.03	0.21	0.21	0.03	0.32	0.32
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.502
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1	1 0	0 1	1	1 0
Volume Module:												
Base Vol:	125	386	42	89	417	45	0	645	68	0	862	66
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	386	42	89	417	45	0	645	68	0	862	66
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	386	42	89	417	45	0	645	68	0	862	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	386	42	89	417	45	0	645	68	0	862	66
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	386	42	89	417	45	0	645	68	0	862	66
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	1.80	0.20	1.00	2.00	1.00	0.00	2.71	0.29	0.00	2.79	0.21
Final Sat.:	1600	2886	314	1600	3200	1600	0	4342	458	0	4459	341
Capacity Analysis Module:												
Vol/Sat:	0.08	0.13	0.13	0.06	0.13	0.03	0.00	0.15	0.15	0.00	0.19	0.19
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
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AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.705
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	61	405	37	96	483	86	110	502	70	204	887	137
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	405	37	96	483	86	110	502	70	204	887	137
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	405	37	96	483	86	110	502	70	204	887	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	405	37	96	483	86	110	502	70	204	887	137
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	405	37	96	483	86	110	502	70	204	887	137
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	1.83	0.17	1.00	1.70	0.30	1.00	1.76	0.24	1.00	1.73	0.27
Final Sat.:	1600	2932	268	1600	2716	484	1600	2808	392	1600	2772	428
Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.14	0.06	0.18	0.18	0.07	0.18	0.18	0.13	0.32	0.32
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
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AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.583
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	663	243	0	830	238	138	0	358	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:	0	663	243	0	830	238	138	0	358	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	663	243	0	830	0	138	0	358	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	663	243	0	830	0	138	0	358	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	663	243	0	830	0	138	0	358	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.20	0.80	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3513	1287	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.19	0.00	0.26	0.00	0.09	0.00	0.22	0.00	0.00	0.00
Crit Moves:	****				****				****			

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LONG BEACH BLVD SPECIFIC PLAN
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.772
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	43	689	57	83	960	129	124	437	62	218	729	82
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:	43	689	57	83	960	129	124	437	62	218	729	82
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:	43	689	57	83	960	129	124	437	62	218	729	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	689	57	83	960	129	124	437	62	218	729	82
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:	43	689	57	83	960	129	124	437	62	218	729	82
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	1.85	0.15	1.00	1.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2955	245	1600	2821	379	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.23	0.05	0.34	0.34	0.08	0.14	0.04	0.14	0.23	0.05
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.521
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	37	769	23	57	1119	35	22	5	25	7	0	6
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:	37	769	23	57	1119	35	22	5	25	7	0	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	769	23	57	1119	35	22	5	25	7	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	769	23	57	1119	35	22	5	25	7	0	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	769	23	57	1119	35	22	5	25	7	0	6
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	1.94	0.06	1.00	1.94	0.06	0.42	0.10	0.48	0.54	0.00	0.46
Final Sat.:	1600	3107	93	1600	3103	97	677	154	769	862	0	738
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.25	0.04	0.36	0.36	0.01	0.03	0.03	0.00	0.00	0.01
Crit Moves:	****				****			****		****		

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Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	66	0	1	25	106	816	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	72	0	1	27	115	887	5

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1382	1831	354	1474	1828	446	708	0	0
Stage 1	708	708	-	1120	1120	-	-	-	-
Stage 2	674	1123	-	354	708	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	103	76	642	88	76	560	887	-	-
Stage 1	392	436	-	220	280	-	-	-	-
Stage 2	410	279	-	636	436	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	87	66	642	70	66	560	887	-	-
Mov Cap-2 Maneuver	87	66	-	70	66	-	-	-	-
Stage 1	341	436	-	191	244	-	-	-	-
Stage 2	338	243	-	565	436	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.3	13.9	1.1
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	887	-	-	642	435	756	-	-
HCM Lane V/C Ratio	0.13	-	-	0.112	0.065	-	-	-
HCM Control Delay (s)	9.7	-	-	11.3	13.9	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.4	0.2	0	-	-

Intersection			
Int Delay, s/veh			

Movement	SBL	SBT	SBR
Vol, veh/h	0	651	317
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	95
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	708	345

Major/Minor	Major2		
Conflicting Flow All	892	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	756	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	756	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	C	xxxxx	0.780	C	xxxxx	0.780	+ 0.000
# 2 Pacific Ave & Willow St	C	xxxxx	0.774	C	xxxxx	0.774	+ 0.000
# 3 Long Beach Blvd & Willow St	C	xxxxx	0.752	C	xxxxx	0.752	+ 0.000
# 4 Atlantic Ave & Willow St	C	xxxxx	0.779	C	xxxxx	0.779	+ 0.000
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.524	A	xxxxx	0.524	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	C	xxxxx	0.700	C	xxxxx	0.700	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	C	xxxxx	0.737	C	xxxxx	0.737	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	C	xxxxx	0.730	C	xxxxx	0.730	+ 0.000
# 9 Pacific Ave & Anaheim St	C	xxxxx	0.735	C	xxxxx	0.735	+ 0.000
# 10 Long Beach Blvd & Anaheim St	B	xxxxx	0.651	B	xxxxx	0.651	+ 0.000
# 11 Atlantic Ave & Anaheim St	C	xxxxx	0.800	C	xxxxx	0.800	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	A	xxxxx	0.546	A	xxxxx	0.546	+ 0.000
# 13 Atlantic Ave & Spring St	D	xxxxx	0.889	D	xxxxx	0.889	+ 0.000
# 14 Atlantic Ave & Columbia St	A	xxxxx	0.573	A	xxxxx	0.573	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	48	888	230	123	699	129	153	530	38	141	422	138
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:	48	888	230	123	699	129	153	530	38	141	422	138
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:	48	888	230	123	699	129	153	530	38	141	422	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	888	230	123	699	129	153	530	38	141	422	138
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:	48	888	230	123	699	129	153	530	38	141	422	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:	1.00	1.59	0.41	1.00	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2542	658	1600	2701	499	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.35	0.35	0.08	0.26	0.26	0.10	0.17	0.02	0.09	0.13	0.09
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.774
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	147	453	161	116	418	99	101	1327	159	160	1114	93
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:	147	453	161	116	418	99	101	1327	159	160	1114	93
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:	147	453	161	116	418	99	101	1327	159	160	1114	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	453	161	116	418	99	101	1327	159	160	1114	93
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:	147	453	161	116	418	99	101	1327	159	160	1114	93
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	1.48	0.52	1.00	1.62	0.38	1.00	2.68	0.32	1.00	2.77	0.23
Final Sat.:	1600	2361	839	1600	2587	613	1600	4286	514	1600	4430	370
Capacity Analysis Module:												
Vol/Sat:	0.09	0.19	0.19	0.07	0.16	0.16	0.06	0.31	0.31	0.10	0.25	0.25
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.752
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	199	574	130	198	606	190	190	1177	153	149	829	60
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:	199	574	130	198	606	190	190	1177	153	149	829	60
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:	199	574	130	198	606	190	190	1177	153	149	829	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	574	130	198	606	190	190	1177	153	149	829	60
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:	199	574	130	198	606	190	190	1177	153	149	829	60
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	2.45	0.55	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	3914	886	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.15	0.15	0.12	0.19	0.12	0.12	0.25	0.10	0.09	0.17	0.04
Crit Moves:	****				****			****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	100	523	136	195	607	133	134	1161	100	141	792	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:	100	523	136	195	607	133	134	1161	100	141	792	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:	100	523	136	195	607	133	134	1161	100	141	792	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	523	136	195	607	133	134	1161	100	141	792	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:	100	523	136	195	607	133	134	1161	100	141	792	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	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.59	0.41	1.00	1.64	0.36	2.00	2.76	0.24	1.00	2.69	0.31
Final Sat.:	1600	2540	660	1600	2625	575	2880	4419	381	1600	4300	500
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.21	0.12	0.23	0.23	0.05	0.26	0.26	0.09	0.18	0.18
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.524
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	39	782	22	71	765	42	27	121	20	26	124	29
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:	39	782	22	71	765	42	27	121	20	26	124	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	782	22	71	765	42	27	121	20	26	124	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	782	22	71	765	42	27	121	20	26	124	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	782	22	71	765	42	27	121	20	26	124	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.90	0.10	0.16	0.72	0.12	0.15	0.69	0.16
Final Sat.:	1600	3112	88	1600	3033	167	257	1152	190	232	1108	259
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.25	0.04	0.25	0.25	0.02	0.11	0.11	0.02	0.11	0.11
Crit Moves:		****			****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.700
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	93	505	105	79	387	83	120	1442	75	71	758	106
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:	93	505	105	79	387	83	120	1442	75	71	758	106
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:	93	505	105	79	387	83	120	1442	75	71	758	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	505	105	79	387	83	120	1442	75	71	758	106
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:	93	505	105	79	387	83	120	1442	75	71	758	106
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	1.66	0.34	1.00	1.65	0.35	1.00	2.85	0.15	1.00	2.63	0.37
Final Sat.:	1600	2649	551	1600	2635	565	1600	4563	237	1600	4211	589
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.19	0.05	0.15	0.15	0.08	0.32	0.32	0.04	0.18	0.18
Crit Moves:		****		****				****		****		

LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	136	559	85	153	535	102	145	1330	84	116	719	82
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:	136	559	85	153	535	102	145	1330	84	116	719	82
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:	136	559	85	153	535	102	145	1330	84	116	719	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	559	85	153	535	102	145	1330	84	116	719	82
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:	136	559	85	153	535	102	145	1330	84	116	719	82
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.82	0.18	1.00	2.69	0.31
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4515	285	1600	4309	491
Capacity Analysis Module:												
Vol/Sat:	0.09	0.17	0.05	0.10	0.17	0.06	0.09	0.29	0.29	0.07	0.17	0.17
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

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:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	68	606	135	93	586	63	80	1375	91	124	815	59
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:	68	606	135	93	586	63	80	1375	91	124	815	59
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:	68	606	135	93	586	63	80	1375	91	124	815	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	606	135	93	586	63	80	1375	91	124	815	59
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:	68	606	135	93	586	63	80	1375	91	124	815	59
OvlAdjVol:			11									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.81	0.19	1.00	2.80	0.20
Final Sat.:	1600	3200	1600	1600	2889	311	1600	4502	298	1600	4476	324
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.08	0.06	0.20	0.20	0.05	0.31	0.31	0.08	0.18	0.18
OvlAdjV/S:			0.01									
Crit Moves:		****		****				****		****		

LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	71	441	84	72	316	44	85	1198	48	58	717	62
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:	71	441	84	72	316	44	85	1198	48	58	717	62
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:	71	441	84	72	316	44	85	1198	48	58	717	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	441	84	72	316	44	85	1198	48	58	717	62
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:	71	441	84	72	316	44	85	1198	48	58	717	62
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	1.68	0.32	1.00	1.76	0.24	1.00	1.92	0.08	1.00	1.84	0.16
Final Sat.:	1600	2688	512	1600	2809	391	1600	3077	123	1600	2945	255
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.05	0.11	0.11	0.05	0.39	0.39	0.04	0.24	0.24
Crit Moves:		****		****				****		****		

LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.651
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1	1 0	0 1	1	1 0
Volume Module:												
Base Vol:	129	560	83	137	479	51	0	1194	77	0	707	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:	129	560	83	137	479	51	0	1194	77	0	707	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:	129	560	83	137	479	51	0	1194	77	0	707	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	560	83	137	479	51	0	1194	77	0	707	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:	129	560	83	137	479	51	0	1194	77	0	707	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	1.74	0.26	1.00	2.00	1.00	0.00	2.82	0.18	0.00	2.68	0.32
Final Sat.:	1600	2787	413	1600	3200	1600	0	4509	291	0	4296	504
Capacity Analysis Module:												
Vol/Sat:	0.08	0.20	0.20	0.09	0.15	0.03	0.00	0.26	0.26	0.00	0.16	0.16
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	C

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	44	491	96	93	537	68	142	1199	75	96	705	99
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:	44	491	96	93	537	68	142	1199	75	96	705	99
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:	44	491	96	93	537	68	142	1199	75	96	705	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	491	96	93	537	68	142	1199	75	96	705	99
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:	44	491	96	93	537	68	142	1199	75	96	705	99
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	1.67	0.33	1.00	1.78	0.22	1.00	1.88	0.12	1.00	1.75	0.25
Final Sat.:	1600	2677	523	1600	2840	360	1600	3012	188	1600	2806	394
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.06	0.19	0.19	0.09	0.40	0.40	0.06	0.25	0.25
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.546
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	1073	252	0	867	204	214	0	272	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:	0	1073	252	0	867	204	214	0	272	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1073	252	0	867	0	214	0	272	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1073	252	0	867	0	214	0	272	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1073	252	0	867	0	214	0	272	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.43	0.57	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3887	913	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.00	0.27	0.00	0.13	0.00	0.17	0.00	0.00	0.00
Crit Moves:		****		****					****			

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.889
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	95	Level Of Service:	D

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	55	1012	191	130	882	145	264	881	41	90	493	93
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:	55	1012	191	130	882	145	264	881	41	90	493	93
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:	55	1012	191	130	882	145	264	881	41	90	493	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	1012	191	130	882	145	264	881	41	90	493	93
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:	55	1012	191	130	882	145	264	881	41	90	493	93
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	1.68	0.32	1.00	1.72	0.28	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2692	508	1600	2748	452	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.38	0.38	0.08	0.32	0.32	0.17	0.28	0.03	0.06	0.15	0.06
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.573
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	42	998	6	11	994	25	44	12	51	44	11	106
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:	42	998	6	11	994	25	44	12	51	44	11	106
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:	42	998	6	11	994	25	44	12	51	44	11	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	998	6	11	994	25	44	12	51	44	11	106
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:	42	998	6	11	994	25	44	12	51	44	11	106
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.95	0.05	0.41	0.11	0.48	0.27	0.07	0.66
Final Sat.:	1600	3181	19	1600	3121	79	658	179	763	437	109	1053
Capacity Analysis Module:												
Vol/Sat:	0.03	0.31	0.31	0.01	0.32	0.32	0.03	0.07	0.07	0.03	0.10	0.10
Crit Moves:	****				****		****				****	

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Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	173	3	1	29	15	773	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	188	3	1	32	16	840	8

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1386	1813	466	1343	1810	424	933	0	0
Stage 1	933	933	-	877	877	-	-	-	-
Stage 2	453	880	-	466	933	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	102	78	543	110	78	579	729	-	-
Stage 1	286	343	-	310	364	-	-	-	-
Stage 2	556	363	-	546	343	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	94	76	543	71	76	579	729	-	-
Mov Cap-2 Maneuver	94	76	-	71	76	-	-	-	-
Stage 1	280	343	-	303	356	-	-	-	-
Stage 2	513	355	-	357	343	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	15.1	18	0.2
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	729	-	-	543	313	785	-	-
HCM Lane V/C Ratio	0.022	-	-	0.346	0.115	-	-	-
HCM Control Delay (s)	10.1	-	-	15.1	18	0	-	-
HCM Lane LOS	B	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	0.4	0	-	-

Intersection			
Int Delay, s/veh			

Movement	SBL	SBT	SBR
Vol, veh/h	0	858	52
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	95
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	933	57

Major/Minor	Major2		
Conflicting Flow All	848	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	785	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	785	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Scenario Report

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

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Long Beach Blvd & Spring St	C	xxxxx	0.705	C	xxxxx	0.705	+ 0.000 V/C
# 2 Pacific Ave & Willow St	B	xxxxx	0.698	B	xxxxx	0.698	+ 0.000 V/C
# 3 Long Beach Blvd & Willow St	C	xxxxx	0.742	C	xxxxx	0.742	+ 0.000 V/C
# 4 Atlantic Ave & Willow St	B	xxxxx	0.680	B	xxxxx	0.680	+ 0.000 V/C
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.525	A	xxxxx	0.525	+ 0.000 V/C
# 6 Pacific Ave & Pacific Coast Hi	B	xxxxx	0.657	B	xxxxx	0.657	+ 0.000 V/C
# 7 Long Beach Blvd & Pacific Coas	C	xxxxx	0.755	C	xxxxx	0.755	+ 0.000 V/C
# 8 Atlantic Ave & Pacific Coast H	C	xxxxx	0.713	C	xxxxx	0.713	+ 0.000 V/C
# 9 Pacific Ave & Anaheim St	B	xxxxx	0.605	B	xxxxx	0.605	+ 0.000 V/C
# 10 Long Beach Blvd & Anaheim St	A	xxxxx	0.510	A	xxxxx	0.510	+ 0.000 V/C
# 11 Atlantic Ave & Anaheim St	C	xxxxx	0.711	C	xxxxx	0.711	+ 0.000 V/C
# 12 Atlantic Ave & I-405 SB Ramps	B	xxxxx	0.627	B	xxxxx	0.627	+ 0.000 V/C
# 13 Atlantic Ave & Spring St	D	xxxxx	0.818	D	xxxxx	0.818	+ 0.000 V/C
# 14 Atlantic Ave & Columbia St	B	xxxxx	0.622	B	xxxxx	0.622	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.705
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	38	796	161	120	949	123	160	391	50	174	389	89
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:	38	796	161	120	949	123	160	391	50	174	389	89
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:	38	796	161	120	949	123	160	391	50	174	389	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	796	161	120	949	123	160	391	50	174	389	89
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:	38	796	161	120	949	123	160	391	50	174	389	89
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	1.66	0.34	1.00	1.77	0.23	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2662	538	1600	2833	367	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.30	0.30	0.08	0.34	0.33	0.10	0.12	0.03	0.11	0.12	0.06
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.698
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	151	538	119	79	503	88	154	975	160	131	961	106
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:	151	538	119	79	503	88	154	975	160	131	961	106
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:	151	538	119	79	503	88	154	975	160	131	961	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	538	119	79	503	88	154	975	160	131	961	106
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:	151	538	119	79	503	88	154	975	160	131	961	106
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	1.64	0.36	1.00	1.70	0.30	1.00	2.58	0.42	1.00	2.70	0.30
Final Sat.:	1600	2620	580	1600	2724	476	1600	4123	677	1600	4323	477
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.21	0.05	0.18	0.18	0.10	0.24	0.24	0.08	0.22	0.22
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.742
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	199	625	110	165	614	151	221	820	120	110	899	118
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:	199	625	110	165	614	151	221	820	120	110	899	118
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:	199	625	110	165	614	151	221	820	120	110	899	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	625	110	165	614	151	221	820	120	110	899	118
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:	199	625	110	165	614	151	221	820	120	110	899	118
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	2.55	0.45	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4082	718	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.15	0.15	0.10	0.19	0.09	0.14	0.17	0.08	0.07	0.19	0.07
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Atlantic Ave						Willow St					
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	1 1	0	1 0	1 1	0	2 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	132	644	108	98	523	90	141	776	72	77	906	222
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:	132	644	108	98	523	90	141	776	72	77	906	222
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:	132	644	108	98	523	90	141	776	72	77	906	222
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	644	108	98	523	90	141	776	72	77	906	222
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:	132	644	108	98	523	90	141	776	72	77	906	222
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	1.71	0.29	1.00	1.71	0.29	2.00	2.75	0.25	1.00	2.41	0.59
Final Sat.:	1600	2740	460	1600	2730	470	2880	4392	408	1600	3855	945
Capacity Analysis Module:												
Vol/Sat:	0.08	0.24	0.23	0.06	0.19	0.19	0.05	0.18	0.18	0.05	0.23	0.24
Crit Moves:		****		****			****					****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.525
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	30	785	22	57	805	31	39	100	26	33	102	46
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:	30	785	22	57	805	31	39	100	26	33	102	46
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:	30	785	22	57	805	31	39	100	26	33	102	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	785	22	57	805	31	39	100	26	33	102	46
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:	30	785	22	57	805	31	39	100	26	33	102	46
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	1.95	0.05	1.00	1.93	0.07	0.24	0.60	0.16	0.18	0.57	0.25
Final Sat.:	1600	3113	87	1600	3081	119	378	970	252	292	902	407
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.25	0.04	0.26	0.26	0.02	0.10	0.10	0.02	0.11	0.11
Crit Moves:		****			****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.657
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	78	386	91	82	491	94	85	832	60	79	1195	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:	78	386	91	82	491	94	85	832	60	79	1195	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:	78	386	91	82	491	94	85	832	60	79	1195	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	386	91	82	491	94	85	832	60	79	1195	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:	78	386	91	82	491	94	85	832	60	79	1195	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	1.62	0.38	1.00	1.68	0.32	1.00	2.80	0.20	1.00	2.74	0.26
Final Sat.:	1600	2590	610	1600	2686	514	1600	4477	323	1600	4385	415
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.15	0.05	0.18	0.18	0.05	0.19	0.19	0.05	0.27	0.27
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.755
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	235	594	88	235	539	125	105	854	80	124	1158	77
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:	235	594	88	235	539	125	105	854	80	124	1158	77
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:	235	594	88	235	539	125	105	854	80	124	1158	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	235	594	88	235	539	125	105	854	80	124	1158	77
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:	235	594	88	235	539	125	105	854	80	124	1158	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.74	0.26	1.00	2.81	0.19
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4389	411	1600	4501	299
Capacity Analysis Module:												
Vol/Sat:	0.15	0.19	0.06	0.15	0.17	0.08	0.07	0.19	0.19	0.08	0.26	0.26
Crit Moves:	****			****			****				****	

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------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
******************************************************************************
Intersection #8 Atlantic Ave & Pacific Coast Highway
******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.713
Loss Time (sec):      10                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        52                Level Of Service:                  C
******************************************************************************
Street Name:           Atlantic Ave                 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:         Permitted        Permitted       Protected        Protected
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:        1  0  2  0  1    1  0  1  1  0    1  0  2  1  0    1  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      92  580   226    59  585    80   117  821   225   160 1211   105
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:   92  580   226    59  585    80   117  821   225   160 1211   105
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:    92  580   226    59  585    80   117  821   225   160 1211   105
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   92  580   226    59  585    80   117  821   225   160 1211   105
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:   92  580   226    59  585    80   117  821   225   160 1211   105
OvlAdjVol:                 66
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       1.00 2.00  1.00  1.00 1.76  0.24  1.00 2.35  0.65  1.00 2.76  0.24
Final Sat.:  1600 3200  1600  1600 2815   385  1600 3767  1033  1600 4417   383
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.18  0.14  0.04 0.21  0.21  0.07 0.22  0.22  0.10 0.27  0.27
OvlAdjV/S:               0.04
Crit Moves:  ****                 ****        ****                  ****
******************************************************************************
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	72	240	40	88	319	42	51	632	62	49	985	73
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:	72	240	40	88	319	42	51	632	62	49	985	73
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:	72	240	40	88	319	42	51	632	62	49	985	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	240	40	88	319	42	51	632	62	49	985	73
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:	72	240	40	88	319	42	51	632	62	49	985	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.71	0.29	1.00	1.77	0.23	1.00	1.82	0.18	1.00	1.86	0.14
Final Sat.:	1600	2743	457	1600	2828	372	1600	2914	286	1600	2979	221
Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.09	0.06	0.11	0.11	0.03	0.22	0.22	0.03	0.33	0.33
Crit Moves:		****		****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.510
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1 1	0	0 1	1 1	0
Volume Module:												
Base Vol:	125	389	42	117	423	58	4	645	68	0	862	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:	125	389	42	117	423	58	4	645	68	0	862	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:	125	389	42	117	423	58	4	645	68	0	862	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	389	42	117	423	58	4	645	68	0	862	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:	125	389	42	117	423	58	4	645	68	0	862	84
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	2.00	1.00	0.02	2.70	0.28	0.00	2.73	0.27
Final Sat.:	1600	2888	312	1600	3200	1600	27	4318	455	0	4374	426
Capacity Analysis Module:												
Vol/Sat:	0.08	0.13	0.13	0.07	0.13	0.04	0.00	0.15	0.15	0.00	0.20	0.20
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

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

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	62	406	37	97	483	86	110	529	72	204	903	139
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:	62	406	37	97	483	86	110	529	72	204	903	139
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:	62	406	37	97	483	86	110	529	72	204	903	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	406	37	97	483	86	110	529	72	204	903	139
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:	62	406	37	97	483	86	110	529	72	204	903	139
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	1.83	0.17	1.00	1.70	0.30	1.00	1.76	0.24	1.00	1.73	0.27
Final Sat.:	1600	2933	267	1600	2716	484	1600	2817	383	1600	2773	427
Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.14	0.06	0.18	0.18	0.07	0.19	0.19	0.13	0.33	0.33
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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 1	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	710	283	0	903	238	138	0	392	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:	0	710	283	0	903	238	138	0	392	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	710	283	0	903	0	138	0	392	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	710	283	0	903	0	138	0	392	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	710	283	0	903	0	138	0	392	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.15	0.85	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3432	1368	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.21	0.00	0.28	0.00	0.09	0.00	0.25	0.00	0.00	0.00
Crit Moves:	****				****				****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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 1	0	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	48	765	64	83	1064	132	135	444	69	228	735	82
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:	48	765	64	83	1064	132	135	444	69	228	735	82
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:	48	765	64	83	1064	132	135	444	69	228	735	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	765	64	83	1064	132	135	444	69	228	735	82
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:	48	765	64	83	1064	132	135	444	69	228	735	82
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	1.85	0.15	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2953	247	1600	2847	353	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.26	0.05	0.37	0.37	0.08	0.14	0.04	0.14	0.23	0.05
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.622
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	71	813	23	57	1178	97	66	5	49	7	0	6
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:	71	813	23	57	1178	97	66	5	49	7	0	6
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:	71	813	23	57	1178	97	66	5	49	7	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	813	23	57	1178	97	66	5	49	7	0	6
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:	71	813	23	57	1178	97	66	5	49	7	0	6
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	1.94	0.06	1.00	1.85	0.15	0.55	0.04	0.41	0.54	0.00	0.46
Final Sat.:	1600	3112	88	1600	2957	243	880	67	653	862	0	738
Capacity Analysis Module:												
Vol/Sat:	0.04	0.26	0.26	0.04	0.40	0.40	0.04	0.07	0.08	0.00	0.00	0.01
Crit Moves:	****				****				****	****		

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Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	0	79	0	1	25	130	877	5	0	693	317
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-	-	-	95
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	86	0	1	27	141	953	5	0	753	345

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1513	1994	377	1616	1992	479	753	0	0	959	0	0
Stage 1	753	753	-	1239	1239	-	-	-	-	-	-	-
Stage 2	760	1241	-	377	753	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	82	60	621	69	60	533	853	-	-	713	-	-
Stage 1	368	416	-	186	246	-	-	-	-	-	-	-
Stage 2	364	245	-	616	416	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	67	50	621	52	50	533	853	-	-	713	-	-
Mov Cap-2 Maneuver	67	50	-	52	50	-	-	-	-	-	-	-
Stage 1	307	416	-	155	205	-	-	-	-	-	-	-
Stage 2	287	205	-	531	416	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	15	1.3	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	853	-	-	621	389	713	-	-
HCM Lane V/C Ratio	0.166	-	-	0.138	0.073	-	-	-
HCM Control Delay (s)	10.1	-	-	11.7	15	0	-	-
HCM Lane LOS	B	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	0.5	0.2	0	-	-

Scenario Report

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

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Long Beach Blvd & Spring St	D	xxxxx	0.819	D	xxxxx	0.819	+ 0.000 V/C
# 2 Pacific Ave & Willow St	C	xxxxx	0.793	C	xxxxx	0.793	+ 0.000 V/C
# 3 Long Beach Blvd & Willow St	C	xxxxx	0.796	C	xxxxx	0.796	+ 0.000 V/C
# 4 Atlantic Ave & Willow St	D	xxxxx	0.809	D	xxxxx	0.809	+ 0.000 V/C
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.549	A	xxxxx	0.549	+ 0.000 V/C
# 6 Pacific Ave & Pacific Coast Hi	C	xxxxx	0.712	C	xxxxx	0.712	+ 0.000 V/C
# 7 Long Beach Blvd & Pacific Coas	C	xxxxx	0.756	C	xxxxx	0.756	+ 0.000 V/C
# 8 Atlantic Ave & Pacific Coast H	C	xxxxx	0.746	C	xxxxx	0.746	+ 0.000 V/C
# 9 Pacific Ave & Anaheim St	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000 V/C
# 10 Long Beach Blvd & Anaheim St	B	xxxxx	0.653	B	xxxxx	0.653	+ 0.000 V/C
# 11 Atlantic Ave & Anaheim St	D	xxxxx	0.800	D	xxxxx	0.800	+ 0.000 V/C
# 12 Atlantic Ave & I-405 SB Ramps	A	xxxxx	0.586	A	xxxxx	0.586	+ 0.000 V/C
# 13 Atlantic Ave & Spring St	E	xxxxx	0.933	E	xxxxx	0.933	+ 0.000 V/C
# 14 Atlantic Ave & Columbia St	B	xxxxx	0.661	B	xxxxx	0.661	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.819
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	51	966	240	123	826	152	167	537	41	156	431	138
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:	51	966	240	123	826	152	167	537	41	156	431	138
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:	51	966	240	123	826	152	167	537	41	156	431	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	966	240	123	826	152	167	537	41	156	431	138
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:	51	966	240	123	826	152	167	537	41	156	431	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:	1.00	1.60	0.40	1.00	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2563	637	1600	2703	497	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.38	0.38	0.08	0.31	0.31	0.10	0.17	0.03	0.10	0.13	0.09
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.793
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	149	464	163	123	425	102	107	1371	161	161	1148	102
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:	149	464	163	123	425	102	107	1371	161	161	1148	102
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:	149	464	163	123	425	102	107	1371	161	161	1148	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	149	464	163	123	425	102	107	1371	161	161	1148	102
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:	149	464	163	123	425	102	107	1371	161	161	1148	102
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	1.48	0.52	1.00	1.61	0.39	1.00	2.68	0.32	1.00	2.76	0.24
Final Sat.:	1600	2368	832	1600	2581	619	1600	4296	504	1600	4408	392
Capacity Analysis Module:												
Vol/Sat:	0.09	0.20	0.20	0.08	0.16	0.16	0.07	0.32	0.32	0.10	0.26	0.26
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	C

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	201	604	127	219	692	217	211	1208	166	164	869	79
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:	201	604	127	219	692	217	211	1208	166	164	869	79
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:	201	604	127	219	692	217	211	1208	166	164	869	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	604	127	219	692	217	211	1208	166	164	869	79
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:	201	604	127	219	692	217	211	1208	166	164	869	79
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	2.48	0.52	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	3966	834	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.15	0.15	0.14	0.22	0.14	0.13	0.25	0.10	0.10	0.18	0.05
Crit Moves:	****				****			****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Atlantic Ave						Willow St					
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	1 1	0	1 0	1 1	0	2 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	100	556	139	215	645	160	157	1187	100	143	838	109
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:	100	556	139	215	645	160	157	1187	100	143	838	109
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:	100	556	139	215	645	160	157	1187	100	143	838	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	556	139	215	645	160	157	1187	100	143	838	109
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:	100	556	139	215	645	160	157	1187	100	143	838	109
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	1.60	0.40	1.00	1.60	0.40	2.00	2.77	0.23	1.00	2.65	0.35
Final Sat.:	1600	2560	640	1600	2564	636	2880	4427	373	1600	4248	552
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.22	0.13	0.25	0.25	0.05	0.27	0.27	0.09	0.20	0.20
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.549
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	817	23	75	844	46	32	124	24	30	127	34
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:	40	817	23	75	844	46	32	124	24	30	127	34
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:	40	817	23	75	844	46	32	124	24	30	127	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	817	23	75	844	46	32	124	24	30	127	34
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:	40	817	23	75	844	46	32	124	24	30	127	34
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	1.95	0.05	1.00	1.90	0.10	0.18	0.69	0.13	0.16	0.66	0.18
Final Sat.:	1600	3112	88	1600	3035	165	284	1102	213	251	1064	285
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.26	0.05	0.28	0.28	0.02	0.11	0.11	0.02	0.12	0.12
Crit Moves:		****			****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.712
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	95	508	106	84	390	85	123	1470	78	72	772	114
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:	95	508	106	84	390	85	123	1470	78	72	772	114
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:	95	508	106	84	390	85	123	1470	78	72	772	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	508	106	84	390	85	123	1470	78	72	772	114
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:	95	508	106	84	390	85	123	1470	78	72	772	114
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	1.65	0.35	1.00	1.64	0.36	1.00	2.85	0.15	1.00	2.61	0.39
Final Sat.:	1600	2648	552	1600	2627	573	1600	4558	242	1600	4182	618
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.19	0.05	0.15	0.15	0.08	0.32	0.32	0.05	0.18	0.18
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.756
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	125	539	75	179	544	116	172	1350	84	123	741	126
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	539	75	179	544	116	172	1350	84	123	741	126
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	539	75	179	544	116	172	1350	84	123	741	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	539	75	179	544	116	172	1350	84	123	741	126
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	539	75	179	544	116	172	1350	84	123	741	126
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.82	0.18	1.00	2.56	0.44
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4519	281	1600	4102	698
Capacity Analysis Module:												
Vol/Sat:	0.08	0.17	0.05	0.11	0.17	0.07	0.11	0.30	0.30	0.08	0.18	0.18
Crit Moves:	****			****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.746
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	69	606	135	110	586	77	93	1400	92	124	865	73
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:	69	606	135	110	586	77	93	1400	92	124	865	73
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:	69	606	135	110	586	77	93	1400	92	124	865	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	606	135	110	586	77	93	1400	92	124	865	73
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:	69	606	135	110	586	77	93	1400	92	124	865	73
OvlAdjVol:			11									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.77	0.23	1.00	2.82	0.18	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	2828	372	1600	4504	296	1600	4426	374
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.08	0.07	0.21	0.21	0.06	0.31	0.31	0.08	0.20	0.20
OvlAdjV/S:			0.01									
Crit Moves:	****			****				****		****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	71	443	85	77	318	45	86	1205	48	58	716	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:	71	443	85	77	318	45	86	1205	48	58	716	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:	71	443	85	77	318	45	86	1205	48	58	716	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	443	85	77	318	45	86	1205	48	58	716	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:	71	443	85	77	318	45	86	1205	48	58	716	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	1.68	0.32	1.00	1.75	0.25	1.00	1.92	0.08	1.00	1.83	0.17
Final Sat.:	1600	2685	515	1600	2803	397	1600	3077	123	1600	2934	266
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.16	0.05	0.11	0.11	0.05	0.39	0.39	0.04	0.24	0.24
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.653
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1 1	0	0 1	1 1	0
Volume Module:												
Base Vol:	129	564	83	137	479	48	4	1194	77	0	707	93
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:	129	564	83	137	479	48	4	1194	77	0	707	93
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:	129	564	83	137	479	48	4	1194	77	0	707	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	564	83	137	479	48	4	1194	77	0	707	93
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:	129	564	83	137	479	48	4	1194	77	0	707	93
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	1.74	0.26	1.00	2.00	1.00	0.01	2.81	0.18	0.00	2.65	0.35
Final Sat.:	1600	2789	411	1600	3200	1600	15	4495	290	0	4242	558
Capacity Analysis Module:												
Vol/Sat:	0.08	0.20	0.20	0.09	0.15	0.03	0.00	0.27	0.27	0.00	0.17	0.17
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	45	491	96	94	537	68	142	1199	75	96	715	100
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	491	96	94	537	68	142	1199	75	96	715	100
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	491	96	94	537	68	142	1199	75	96	715	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	491	96	94	537	68	142	1199	75	96	715	100
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	491	96	94	537	68	142	1199	75	96	715	100
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	1.67	0.33	1.00	1.78	0.22	1.00	1.88	0.12	1.00	1.75	0.25
Final Sat.:	1600	2677	523	1600	2840	360	1600	3012	188	1600	2807	393
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.06	0.19	0.19	0.09	0.40	0.40	0.06	0.25	0.25
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.586
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Atlantic Ave							I-405 SB Ramps					
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			Ignore			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	1 0	0	0 2	0 1	1	0 0	0 1	0	0 0	0 0	
Volume Module:													
Base Vol:	0	1134	297	0	939	204	214	0	301	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:	0	1134	297	0	939	204	214	0	301	0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	1134	297	0	939	0	214	0	301	0	0	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	1134	297	0	939	0	214	0	301	0	0	0	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	0	1134	297	0	939	0	214	0	301	0	0	0	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.00	2.38	0.62	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	
Final Sat.:	0	3804	996	0	3200	1600	1600	0	1600	0	0	0	
Capacity Analysis Module:													
Vol/Sat:	0.00	0.30	0.30	0.00	0.29	0.00	0.13	0.00	0.19	0.00	0.00	0.00	
Crit Moves:		****		****					****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.933
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	119	Level Of Service:	E

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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 1	0	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
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	1.69	0.31	1.00	1.73	0.27	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2711	489	1600	2763	437	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.41	0.41	0.08	0.35	0.35	0.17	0.28	0.03	0.06	0.16	0.06
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.661
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	71	1058	6	11	1048	77	103	12	84	44	11	106
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:	71	1058	6	11	1048	77	103	12	84	44	11	106
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:	71	1058	6	11	1048	77	103	12	84	44	11	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	1058	6	11	1048	77	103	12	84	44	11	106
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:	71	1058	6	11	1048	77	103	12	84	44	11	106
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.86	0.14	0.52	0.06	0.42	0.27	0.07	0.66
Final Sat.:	1600	3182	18	1600	2981	219	828	96	675	437	109	1053
Capacity Analysis Module:												
Vol/Sat:	0.04	0.33	0.33	0.01	0.35	0.35	0.06	0.12	0.12	0.03	0.10	0.10
Crit Moves:	****				****		****				****	

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	2	184	3	1	29	35	826	7	4	916	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-	-	-	95
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	2	200	3	1	32	38	898	8	4	996	57

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1530	1986	498	1486	1982	453	996	0	0	905	0	0
Stage 1	1004	1004	-	978	978	-	-	-	-	-	-	-
Stage 2	526	982	-	508	1004	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	80	60	518	86	61	554	690	-	-	747	-	-
Stage 1	259	318	-	269	327	-	-	-	-	-	-	-
Stage 2	503	325	-	516	318	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	71	56	518	49	57	554	690	-	-	747	-	-
Mov Cap-2 Maneuver	71	56	-	49	57	-	-	-	-	-	-	-
Stage 1	245	314	-	254	309	-	-	-	-	-	-	-
Stage 2	447	307	-	310	314	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	21.6	0.4	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	690	-	-	518	252	747	-	-
HCM Lane V/C Ratio	0.055	-	-	0.386	0.142	0.006	-	-
HCM Control Delay (s)	10.5	-	-	16.3	21.6	9.8	0	-
HCM Lane LOS	B	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.8	0.5	0	-	-

LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	C	xxxxx	0.705	C	xxxxx	0.705	+ 0.000
# 2 Pacific Ave & Willow St	B	xxxxx	0.698	B	xxxxx	0.698	+ 0.000
# 3 Long Beach Blvd & Willow St	C	xxxxx	0.734	C	xxxxx	0.734	+ 0.000
# 4 Atlantic Ave & Willow St	B	xxxxx	0.680	B	xxxxx	0.680	+ 0.000
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.500	A	xxxxx	0.500	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	B	xxxxx	0.657	B	xxxxx	0.657	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	C	xxxxx	0.759	C	xxxxx	0.759	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	C	xxxxx	0.713	C	xxxxx	0.713	+ 0.000
# 9 Pacific Ave & Anaheim St	B	xxxxx	0.605	B	xxxxx	0.605	+ 0.000
# 10 Long Beach Blvd & Anaheim St	A	xxxxx	0.534	A	xxxxx	0.534	+ 0.000
# 11 Atlantic Ave & Anaheim St	C	xxxxx	0.711	C	xxxxx	0.711	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	B	xxxxx	0.627	B	xxxxx	0.627	+ 0.000
# 13 Atlantic Ave & Spring St	D	xxxxx	0.818	D	xxxxx	0.818	+ 0.000
# 14 Atlantic Ave & Columbia St	B	xxxxx	0.622	B	xxxxx	0.622	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.705
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	38	796	161	120	949	123	160	391	50	174	389	89
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:	38	796	161	120	949	123	160	391	50	174	389	89
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:	38	796	161	120	949	123	160	391	50	174	389	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	796	161	120	949	123	160	391	50	174	389	89
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:	38	796	161	120	949	123	160	391	50	174	389	89
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	1.66	0.34	1.00	1.77	0.23	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2662	538	1600	2833	367	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.30	0.30	0.08	0.34	0.33	0.10	0.12	0.03	0.11	0.12	0.06
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.698
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	151	538	119	79	503	88	154	975	160	131	961	106
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:	151	538	119	79	503	88	154	975	160	131	961	106
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:	151	538	119	79	503	88	154	975	160	131	961	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	538	119	79	503	88	154	975	160	131	961	106
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:	151	538	119	79	503	88	154	975	160	131	961	106
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	1.64	0.36	1.00	1.70	0.30	1.00	2.58	0.42	1.00	2.70	0.30
Final Sat.:	1600	2620	580	1600	2724	476	1600	4123	677	1600	4323	477
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.21	0.05	0.18	0.18	0.10	0.24	0.24	0.08	0.22	0.22
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.734
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	184	665	92	165	655	151	203	820	120	110	899	79
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:	184	665	92	165	655	151	203	820	120	110	899	79
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:	184	665	92	165	655	151	203	820	120	110	899	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	184	665	92	165	655	151	203	820	120	110	899	79
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:	184	665	92	165	655	151	203	820	120	110	899	79
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	2.64	0.36	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4217	583	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.16	0.10	0.20	0.09	0.13	0.17	0.08	0.07	0.19	0.05
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	132	644	108	98	523	90	141	776	72	77	906	222
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:	132	644	108	98	523	90	141	776	72	77	906	222
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:	132	644	108	98	523	90	141	776	72	77	906	222
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	644	108	98	523	90	141	776	72	77	906	222
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:	132	644	108	98	523	90	141	776	72	77	906	222
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	1.71	0.29	1.00	1.71	0.29	2.00	2.75	0.25	1.00	2.41	0.59
Final Sat.:	1600	2740	460	1600	2730	470	2880	4392	408	1600	3855	945
Capacity Analysis Module:												
Vol/Sat:	0.08	0.24	0.23	0.06	0.19	0.19	0.05	0.18	0.18	0.05	0.23	0.24
Crit Moves:		****		****			****					****

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.500
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	25	852	5	35	892	21	20	100	4	13	102	23
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:	25	852	5	35	892	21	20	100	4	13	102	23
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:	25	852	5	35	892	21	20	100	4	13	102	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	852	5	35	892	21	20	100	4	13	102	23
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:	25	852	5	35	892	21	20	100	4	13	102	23
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.95	0.05	0.16	0.81	0.03	0.09	0.74	0.17
Final Sat.:	1600	3181	19	1600	3126	74	258	1290	52	151	1183	267
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.27	0.02	0.29	0.29	0.01	0.08	0.08	0.01	0.09	0.09
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.657
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	78	386	91	82	491	94	85	832	60	79	1195	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:	78	386	91	82	491	94	85	832	60	79	1195	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:	78	386	91	82	491	94	85	832	60	79	1195	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	386	91	82	491	94	85	832	60	79	1195	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:	78	386	91	82	491	94	85	832	60	79	1195	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	1.62	0.38	1.00	1.68	0.32	1.00	2.80	0.20	1.00	2.74	0.26
Final Sat.:	1600	2590	610	1600	2686	514	1600	4477	323	1600	4385	415
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.15	0.05	0.18	0.18	0.05	0.19	0.19	0.05	0.27	0.27
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.759
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	225	720	56	215	602	119	82	854	56	46	1158	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:	225	720	56	215	602	119	82	854	56	46	1158	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:	225	720	56	215	602	119	82	854	56	46	1158	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	225	720	56	215	602	119	82	854	56	46	1158	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:	225	720	56	215	602	119	82	854	56	46	1158	36
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.82	0.18	1.00	2.91	0.09
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4505	295	1600	4655	145
Capacity Analysis Module:												
Vol/Sat:	0.14	0.23	0.04	0.13	0.19	0.07	0.05	0.19	0.19	0.03	0.25	0.25
Crit Moves:		****		****			****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.713
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	92	580	226	59	585	80	117	821	225	160	1211	105
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:	92	580	226	59	585	80	117	821	225	160	1211	105
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:	92	580	226	59	585	80	117	821	225	160	1211	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	580	226	59	585	80	117	821	225	160	1211	105
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:	92	580	226	59	585	80	117	821	225	160	1211	105
OvlAdjVol:			66									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.76	0.24	1.00	2.35	0.65	1.00	2.76	0.24
Final Sat.:	1600	3200	1600	1600	2815	385	1600	3767	1033	1600	4417	383
Capacity Analysis Module:												
Vol/Sat:	0.06	0.18	0.14	0.04	0.21	0.21	0.07	0.22	0.22	0.10	0.27	0.27
OvlAdjV/S:			0.04									
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	72	240	40	88	319	42	51	632	62	49	985	73
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:	72	240	40	88	319	42	51	632	62	49	985	73
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:	72	240	40	88	319	42	51	632	62	49	985	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	240	40	88	319	42	51	632	62	49	985	73
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:	72	240	40	88	319	42	51	632	62	49	985	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.71	0.29	1.00	1.77	0.23	1.00	1.82	0.18	1.00	1.86	0.14
Final Sat.:	1600	2743	457	1600	2828	372	1600	2914	286	1600	2979	221
Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.09	0.06	0.11	0.11	0.03	0.22	0.22	0.03	0.33	0.33
Crit Moves:		****		****			****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.534
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1	1 0	0 1	1	1 0
Volume Module:												
Base Vol:	125	431	42	105	501	19	4	645	40	0	862	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:	125	431	42	105	501	19	4	645	40	0	862	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:	125	431	42	105	501	19	4	645	40	0	862	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	431	42	105	501	19	4	645	40	0	862	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:	125	431	42	105	501	19	4	645	40	0	862	84
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	1.82	0.18	1.00	2.00	1.00	0.02	2.81	0.17	0.00	2.73	0.27
Final Sat.:	1600	2916	284	1600	3200	1600	28	4493	279	0	4374	426
Capacity Analysis Module:												
Vol/Sat:	0.08	0.15	0.15	0.07	0.16	0.01	0.00	0.14	0.14	0.00	0.20	0.20
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

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

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	62	406	37	97	483	86	110	529	72	204	903	139
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:	62	406	37	97	483	86	110	529	72	204	903	139
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:	62	406	37	97	483	86	110	529	72	204	903	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	406	37	97	483	86	110	529	72	204	903	139
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:	62	406	37	97	483	86	110	529	72	204	903	139
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	1.83	0.17	1.00	1.70	0.30	1.00	1.76	0.24	1.00	1.73	0.27
Final Sat.:	1600	2933	267	1600	2716	484	1600	2817	383	1600	2773	427
Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.14	0.06	0.18	0.18	0.07	0.19	0.19	0.13	0.33	0.33
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	710	283	0	903	238	138	0	392	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:	0	710	283	0	903	238	138	0	392	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	710	283	0	903	0	138	0	392	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	710	283	0	903	0	138	0	392	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	710	283	0	903	0	138	0	392	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.15	0.85	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3432	1368	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.21	0.00	0.28	0.00	0.09	0.00	0.25	0.00	0.00	0.00
Crit Moves:	****				****				****			

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	48	765	64	83	1064	132	135	444	69	228	735	82
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:	48	765	64	83	1064	132	135	444	69	228	735	82
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:	48	765	64	83	1064	132	135	444	69	228	735	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	765	64	83	1064	132	135	444	69	228	735	82
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:	48	765	64	83	1064	132	135	444	69	228	735	82
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	1.85	0.15	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2953	247	1600	2847	353	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.26	0.05	0.37	0.37	0.08	0.14	0.04	0.14	0.23	0.05
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.622
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	71	813	23	57	1178	97	66	5	49	7	0	6
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:	71	813	23	57	1178	97	66	5	49	7	0	6
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:	71	813	23	57	1178	97	66	5	49	7	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	813	23	57	1178	97	66	5	49	7	0	6
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:	71	813	23	57	1178	97	66	5	49	7	0	6
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	1.94	0.06	1.00	1.85	0.15	0.55	0.04	0.41	0.54	0.00	0.46
Final Sat.:	1600	3112	88	1600	2957	243	880	67	653	862	0	738
Capacity Analysis Module:												
Vol/Sat:	0.04	0.26	0.26	0.04	0.40	0.40	0.04	0.07	0.08	0.00	0.00	0.01
Crit Moves:	****				****				****	****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	D	xxxxx	0.819	D	xxxxx	0.819	+ 0.000
# 2 Pacific Ave & Willow St	C	xxxxx	0.793	C	xxxxx	0.793	+ 0.000
# 3 Long Beach Blvd & Willow St	C	xxxxx	0.787	C	xxxxx	0.787	+ 0.000
# 4 Atlantic Ave & Willow St	D	xxxxx	0.809	D	xxxxx	0.809	+ 0.000
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.542	A	xxxxx	0.542	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	C	xxxxx	0.712	C	xxxxx	0.712	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	C	xxxxx	0.732	C	xxxxx	0.732	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	C	xxxxx	0.746	C	xxxxx	0.746	+ 0.000
# 9 Pacific Ave & Anaheim St	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000
# 10 Long Beach Blvd & Anaheim St	B	xxxxx	0.666	B	xxxxx	0.666	+ 0.000
# 11 Atlantic Ave & Anaheim St	D	xxxxx	0.800	D	xxxxx	0.800	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	A	xxxxx	0.586	A	xxxxx	0.586	+ 0.000
# 13 Atlantic Ave & Spring St	E	xxxxx	0.933	E	xxxxx	0.933	+ 0.000
# 14 Atlantic Ave & Columbia St	B	xxxxx	0.661	B	xxxxx	0.661	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.819
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	51	966	240	123	826	152	167	537	41	156	431	138
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:	51	966	240	123	826	152	167	537	41	156	431	138
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:	51	966	240	123	826	152	167	537	41	156	431	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	966	240	123	826	152	167	537	41	156	431	138
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:	51	966	240	123	826	152	167	537	41	156	431	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:	1.00	1.60	0.40	1.00	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2563	637	1600	2703	497	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.38	0.38	0.08	0.31	0.31	0.10	0.17	0.03	0.10	0.13	0.09
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.793
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	149	464	163	123	425	102	107	1371	161	161	1148	102
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:	149	464	163	123	425	102	107	1371	161	161	1148	102
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:	149	464	163	123	425	102	107	1371	161	161	1148	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	149	464	163	123	425	102	107	1371	161	161	1148	102
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:	149	464	163	123	425	102	107	1371	161	161	1148	102
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	1.48	0.52	1.00	1.61	0.39	1.00	2.68	0.32	1.00	2.76	0.24
Final Sat.:	1600	2368	832	1600	2581	619	1600	4296	504	1600	4408	392
Capacity Analysis Module:												
Vol/Sat:	0.09	0.20	0.20	0.08	0.16	0.16	0.07	0.32	0.32	0.10	0.26	0.26
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.787
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	154	647	96	219	756	217	186	1208	166	164	869	41
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:	154	647	96	219	756	217	186	1208	166	164	869	41
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:	154	647	96	219	756	217	186	1208	166	164	869	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	154	647	96	219	756	217	186	1208	166	164	869	41
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:	154	647	96	219	756	217	186	1208	166	164	869	41
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	2.61	0.39	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4180	620	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.15	0.15	0.14	0.24	0.14	0.12	0.25	0.10	0.10	0.18	0.03
Crit Moves:	****				****			****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	100	556	139	215	645	160	157	1187	100	143	838	109
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:	100	556	139	215	645	160	157	1187	100	143	838	109
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:	100	556	139	215	645	160	157	1187	100	143	838	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	556	139	215	645	160	157	1187	100	143	838	109
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:	100	556	139	215	645	160	157	1187	100	143	838	109
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	1.60	0.40	1.00	1.60	0.40	2.00	2.77	0.23	1.00	2.65	0.35
Final Sat.:	1600	2560	640	1600	2564	636	2880	4427	373	1600	4248	552
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.22	0.13	0.25	0.25	0.05	0.27	0.27	0.09	0.20	0.20
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.542
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	23	943	3	50	907	7	19	124	4	19	127	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:	23	943	3	50	907	7	19	124	4	19	127	19
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:	23	943	3	50	907	7	19	124	4	19	127	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	943	3	50	907	7	19	124	4	19	127	19
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:	23	943	3	50	907	7	19	124	4	19	127	19
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.98	0.02	0.13	0.84	0.03	0.11	0.77	0.12
Final Sat.:	1600	3190	10	1600	3175	25	207	1350	44	184	1232	184
Capacity Analysis Module:												
Vol/Sat:	0.01	0.30	0.30	0.03	0.29	0.29	0.01	0.09	0.09	0.01	0.10	0.10
Crit Moves:		****			****			****			****	

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.712
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	95	508	106	84	390	85	123	1470	78	72	772	114
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:	95	508	106	84	390	85	123	1470	78	72	772	114
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:	95	508	106	84	390	85	123	1470	78	72	772	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	508	106	84	390	85	123	1470	78	72	772	114
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:	95	508	106	84	390	85	123	1470	78	72	772	114
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	1.65	0.35	1.00	1.64	0.36	1.00	2.85	0.15	1.00	2.61	0.39
Final Sat.:	1600	2648	552	1600	2627	573	1600	4558	242	1600	4182	618
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.19	0.05	0.15	0.15	0.08	0.32	0.32	0.05	0.18	0.18
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	C

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	96	704	6	162	680	102	151	1350	57	28	741	20
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:	96	704	6	162	680	102	151	1350	57	28	741	20
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:	96	704	6	162	680	102	151	1350	57	28	741	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	704	6	162	680	102	151	1350	57	28	741	20
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:	96	704	6	162	680	102	151	1350	57	28	741	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.88	0.12	1.00	2.92	0.08
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4606	194	1600	4674	126
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.00	0.10	0.21	0.06	0.09	0.29	0.29	0.02	0.16	0.16
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.746
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	69	606	135	110	586	77	93	1400	92	124	865	73
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:	69	606	135	110	586	77	93	1400	92	124	865	73
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:	69	606	135	110	586	77	93	1400	92	124	865	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	606	135	110	586	77	93	1400	92	124	865	73
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:	69	606	135	110	586	77	93	1400	92	124	865	73
OvlAdjVol:			11									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.77	0.23	1.00	2.82	0.18	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	2828	372	1600	4504	296	1600	4426	374
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.08	0.07	0.21	0.21	0.06	0.31	0.31	0.08	0.20	0.20
OvlAdjV/S:			0.01									
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	71	443	85	77	318	45	86	1205	48	58	716	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:	71	443	85	77	318	45	86	1205	48	58	716	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:	71	443	85	77	318	45	86	1205	48	58	716	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	443	85	77	318	45	86	1205	48	58	716	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:	71	443	85	77	318	45	86	1205	48	58	716	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	1.68	0.32	1.00	1.75	0.25	1.00	1.92	0.08	1.00	1.83	0.17
Final Sat.:	1600	2685	515	1600	2803	397	1600	3077	123	1600	2934	266
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.16	0.05	0.11	0.11	0.05	0.39	0.39	0.04	0.24	0.24
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.666
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Long Beach Blvd							Anaheim St					
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	0 1	1 1	0	0 1	1 1	0	
Volume Module:													
Base Vol:	129	662	83	113	563	-9	4	1194	60	0	707	93	
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:	129	662	83	113	563	-9	4	1194	60	0	707	93	
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	129	662	83	113	563	0	4	1194	60	0	707	93	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	129	662	83	113	563	0	4	1194	60	0	707	93	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	129	662	83	113	563	0	4	1194	60	0	707	93	
Saturation Flow Module:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.78	0.22	1.00	2.00	1.00	0.01	2.85	0.14	0.00	2.65	0.35	
Final Sat.:	1600	2843	357	1600	3200	1600	15	4556	229	0	4242	558	
Capacity Analysis Module:													
Vol/Sat:	0.08	0.23	0.23	0.07	0.18	0.00	0.00	0.26	0.26	0.00	0.17	0.17	
Crit Moves:		****		****				****		****			

LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	45	491	96	94	537	68	142	1199	75	96	715	100
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	491	96	94	537	68	142	1199	75	96	715	100
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	491	96	94	537	68	142	1199	75	96	715	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	491	96	94	537	68	142	1199	75	96	715	100
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	491	96	94	537	68	142	1199	75	96	715	100
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	1.67	0.33	1.00	1.78	0.22	1.00	1.88	0.12	1.00	1.75	0.25
Final Sat.:	1600	2677	523	1600	2840	360	1600	3012	188	1600	2807	393
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.06	0.19	0.19	0.09	0.40	0.40	0.06	0.25	0.25
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.586
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	1134	297	0	939	204	214	0	301	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:	0	1134	297	0	939	204	214	0	301	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1134	297	0	939	0	214	0	301	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1134	297	0	939	0	214	0	301	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1134	297	0	939	0	214	0	301	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.38	0.62	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3804	996	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.30	0.00	0.29	0.00	0.13	0.00	0.19	0.00	0.00	0.00
Crit Moves:		****		****					****			

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.933
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	119	Level Of Service:	E

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
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	1.69	0.31	1.00	1.73	0.27	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2711	489	1600	2763	437	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.41	0.41	0.08	0.35	0.35	0.17	0.28	0.03	0.06	0.16	0.06
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
EXISTING PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.661
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	71	1058	6	11	1048	77	103	12	84	44	11	106
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:	71	1058	6	11	1048	77	103	12	84	44	11	106
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:	71	1058	6	11	1048	77	103	12	84	44	11	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	1058	6	11	1048	77	103	12	84	44	11	106
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:	71	1058	6	11	1048	77	103	12	84	44	11	106
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.86	0.14	0.52	0.06	0.42	0.27	0.07	0.66
Final Sat.:	1600	3182	18	1600	2981	219	828	96	675	437	109	1053
Capacity Analysis Module:												
Vol/Sat:	0.04	0.33	0.33	0.01	0.35	0.35	0.06	0.12	0.12	0.03	0.10	0.10
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	C	xxxxx	0.747	C	xxxxx	0.747	+ 0.000
# 2 Pacific Ave & Willow St	C	xxxxx	0.781	C	xxxxx	0.781	+ 0.000
# 3 Long Beach Blvd & Willow St	D	xxxxx	0.814	D	xxxxx	0.814	+ 0.000
# 4 Atlantic Ave & Willow St	C	xxxxx	0.734	C	xxxxx	0.734	+ 0.000
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.553	A	xxxxx	0.553	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	C	xxxxx	0.730	C	xxxxx	0.730	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	D	xxxxx	0.816	D	xxxxx	0.816	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	C	xxxxx	0.772	C	xxxxx	0.772	+ 0.000
# 9 Pacific Ave & Anaheim St	B	xxxxx	0.691	B	xxxxx	0.691	+ 0.000
# 10 Long Beach Blvd & Anaheim St	A	xxxxx	0.569	A	xxxxx	0.569	+ 0.000
# 11 Atlantic Ave & Anaheim St	D	xxxxx	0.803	D	xxxxx	0.803	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	B	xxxxx	0.666	B	xxxxx	0.666	+ 0.000
# 13 Atlantic Ave & Spring St	D	xxxxx	0.881	D	xxxxx	0.881	+ 0.000
# 14 Atlantic Ave & Columbia St	A	xxxxx	0.594	A	xxxxx	0.594	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	40	760	170	140	1000	170	180	440	50	190	450	100
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:	40	760	170	140	1000	170	180	440	50	190	450	100
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:	40	760	170	140	1000	170	180	440	50	190	450	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	760	170	140	1000	170	180	440	50	190	450	100
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:	40	760	170	140	1000	170	180	440	50	190	450	100
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	1.63	0.37	1.00	1.71	0.29	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2615	585	1600	2735	465	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.09	0.37	0.37	0.11	0.14	0.03	0.12	0.14	0.06
Crit Moves:	****				****			****		****		

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

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

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	170	630	140	90	580	100	180	1100	180	150	1070	130
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:	170	630	140	90	580	100	180	1100	180	150	1070	130
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:	170	630	140	90	580	100	180	1100	180	150	1070	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	630	140	90	580	100	180	1100	180	150	1070	130
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:	170	630	140	90	580	100	180	1100	180	150	1070	130
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	1.64	0.36	1.00	1.71	0.29	1.00	2.58	0.42	1.00	2.68	0.32
Final Sat.:	1600	2618	582	1600	2729	471	1600	4125	675	1600	4280	520
Capacity Analysis Module:												
Vol/Sat:	0.11	0.24	0.24	0.06	0.21	0.21	0.11	0.27	0.27	0.09	0.25	0.25
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.814
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	220	590	110	170	650	180	250	930	150	140	1040	110
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:	220	590	110	170	650	180	250	930	150	140	1040	110
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:	220	590	110	170	650	180	250	930	150	140	1040	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	590	110	170	650	180	250	930	150	140	1040	110
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:	220	590	110	170	650	180	250	930	150	140	1040	110
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	2.53	0.47	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4046	754	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.15	0.15	0.11	0.20	0.11	0.16	0.19	0.09	0.09	0.22	0.07
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.734
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	150	700	120	100	570	90	140	860	80	80	1050	230
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:	150	700	120	100	570	90	140	860	80	80	1050	230
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:	150	700	120	100	570	90	140	860	80	80	1050	230
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	700	120	100	570	90	140	860	80	80	1050	230
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:	150	700	120	100	570	90	140	860	80	80	1050	230
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	1.71	0.29	1.00	1.73	0.27	2.00	2.74	0.26	1.00	2.46	0.54
Final Sat.:	1600	2732	468	1600	2764	436	2880	4391	409	1600	3938	863
Capacity Analysis Module:												
Vol/Sat:	0.09	0.26	0.26	0.06	0.21	0.21	0.05	0.20	0.20	0.05	0.27	0.27
Crit Moves:		****			****			****			****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.553
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	30	790	20	60	860	30	40	110	30	40	120	50
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:	30	790	20	60	860	30	40	110	30	40	120	50
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:	30	790	20	60	860	30	40	110	30	40	120	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	790	20	60	860	30	40	110	30	40	120	50
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:	30	790	20	60	860	30	40	110	30	40	120	50
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	1.95	0.05	1.00	1.93	0.07	0.22	0.61	0.17	0.19	0.57	0.24
Final Sat.:	1600	3121	79	1600	3092	108	356	978	267	305	914	381
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.25	0.04	0.28	0.28	0.03	0.11	0.11	0.03	0.13	0.13
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

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 Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	80	440	100	90	560	110	100	940	60	90	1350	130
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:	80	440	100	90	560	110	100	940	60	90	1350	130
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:	80	440	100	90	560	110	100	940	60	90	1350	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	440	100	90	560	110	100	940	60	90	1350	130
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:	80	440	100	90	560	110	100	940	60	90	1350	130
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	1.63	0.37	1.00	1.67	0.33	1.00	2.82	0.18	1.00	2.74	0.26
Final Sat.:	1600	2607	593	1600	2675	525	1600	4512	288	1600	4378	422
Capacity Analysis Module:												
Vol/Sat:	0.05	0.17	0.17	0.06	0.21	0.21	0.06	0.21	0.21	0.06	0.31	0.31
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	260	620	60	220	590	110	120	970	100	130	1330	80
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:	260	620	60	220	590	110	120	970	100	130	1330	80
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:	260	620	60	220	590	110	120	970	100	130	1330	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	260	620	60	220	590	110	120	970	100	130	1330	80
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:	260	620	60	220	590	110	120	970	100	130	1330	80
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.72	0.28	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4351	449	1600	4528	272
Capacity Analysis Module:												
Vol/Sat:	0.16	0.19	0.04	0.14	0.18	0.07	0.08	0.22	0.22	0.08	0.29	0.29
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.772
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	100	670	260	50	680	70	110	890	260	190	1370	100
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:	100	670	260	50	680	70	110	890	260	190	1370	100
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:	100	670	260	50	680	70	110	890	260	190	1370	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	670	260	50	680	70	110	890	260	190	1370	100
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:	100	670	260	50	680	70	110	890	260	190	1370	100
OvlAdjVol:			70									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.32	0.68	1.00	2.80	0.20
Final Sat.:	1600	3200	1600	1600	2901	299	1600	3715	1085	1600	4473	327
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.16	0.03	0.23	0.23	0.07	0.24	0.24	0.12	0.31	0.31
OvlAdjV/S:			0.04									
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	80	280	50	90	370	50	60	720	70	50	1120	70
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:	80	280	50	90	370	50	60	720	70	50	1120	70
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:	80	280	50	90	370	50	60	720	70	50	1120	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	280	50	90	370	50	60	720	70	50	1120	70
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:	80	280	50	90	370	50	60	720	70	50	1120	70
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	1.70	0.30	1.00	1.76	0.24	1.00	1.82	0.18	1.00	1.88	0.12
Final Sat.:	1600	2715	485	1600	2819	381	1600	2916	284	1600	3012	188
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.10	0.06	0.13	0.13	0.04	0.25	0.25	0.03	0.37	0.37
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.569
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1	1 0	0 1	1	1 0
Volume Module:												
Base Vol:	150	450	50	100	480	50	0	750	80	0	1000	80
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:	150	450	50	100	480	50	0	750	80	0	1000	80
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:	150	450	50	100	480	50	0	750	80	0	1000	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	450	50	100	480	50	0	750	80	0	1000	80
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:	150	450	50	100	480	50	0	750	80	0	1000	80
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	1.80	0.20	1.00	2.00	1.00	0.00	2.71	0.29	0.00	2.78	0.22
Final Sat.:	1600	2880	320	1600	3200	1600	0	4337	463	0	4444	356
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.16	0.06	0.15	0.03	0.00	0.17	0.17	0.00	0.23	0.22
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
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AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	70	470	40	110	560	100	130	580	80	240	1030	160
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:	70	470	40	110	560	100	130	580	80	240	1030	160
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:	70	470	40	110	560	100	130	580	80	240	1030	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	470	40	110	560	100	130	580	80	240	1030	160
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:	70	470	40	110	560	100	130	580	80	240	1030	160
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	1.84	0.16	1.00	1.70	0.30	1.00	1.76	0.24	1.00	1.73	0.27
Final Sat.:	1600	2949	251	1600	2715	485	1600	2812	388	1600	2770	430
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.07	0.21	0.21	0.08	0.21	0.21	0.15	0.37	0.37
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.666
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	770	280	0	970	280	160	0	420	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:	0	770	280	0	970	280	160	0	420	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	770	280	0	970	0	160	0	420	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	770	280	0	970	0	160	0	420	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	770	280	0	970	0	160	0	420	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.20	0.80	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3520	1280	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.22	0.22	0.00	0.30	0.00	0.10	0.00	0.26	0.00	0.00	0.00
Crit Moves:	****				****				****			

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	50	800	70	100	1120	150	140	510	70	250	850	100
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:	50	800	70	100	1120	150	140	510	70	250	850	100
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:	50	800	70	100	1120	150	140	510	70	250	850	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	800	70	100	1120	150	140	510	70	250	850	100
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:	50	800	70	100	1120	150	140	510	70	250	850	100
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	1.84	0.16	1.00	1.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2943	257	1600	2822	378	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.27	0.27	0.06	0.40	0.40	0.09	0.16	0.04	0.16	0.27	0.06
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.594
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	40	890	30	70	1300	40	30	10	30	10	10	10
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:	40	890	30	70	1300	40	30	10	30	10	10	10
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:	40	890	30	70	1300	40	30	10	30	10	10	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	890	30	70	1300	40	30	10	30	10	10	10
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:	40	890	30	70	1300	40	30	10	30	10	10	10
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	1.94	0.06	0.43	0.14	0.43	0.34	0.33	0.33
Final Sat.:	1600	3096	104	1600	3104	96	686	229	686	533	533	533
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.04	0.42	0.42	0.02	0.04	0.04	0.01	0.02	0.02
Crit Moves:	****				****			****		****		

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Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	80	10	10	30	120	950	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	87	11	11	33	130	1033	11

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1609	2130	413	1712	2125	522	826	0	0
Stage 1	826	826	-	1299	1299	-	-	-	-
Stage 2	783	1304	-	413	826	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	70	49	588	58	49	499	800	-	-
Stage 1	332	385	-	171	230	-	-	-	-
Stage 2	353	229	-	587	385	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	46	41	588	43	41	499	800	-	-
Mov Cap-2 Maneuver	46	41	-	43	41	-	-	-	-
Stage 1	278	385	-	143	193	-	-	-	-
Stage 2	261	192	-	500	385	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12.2	87.8	1.2
HCM LOS	B	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	800	-	-	588	93	663	-	-
HCM Lane V/C Ratio	0.163	-	-	0.148	0.584	-	-	-
HCM Control Delay (s)	10.4	-	-	12.2	87.8	0	-	-
HCM Lane LOS	B	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	0.5	2.7	0	-	-

Intersection			
Int Delay, s/veh			

Movement	SBL	SBT	SBR
Vol, veh/h	0	760	370
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	95
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	826	402

Major/Minor	Major2		
Conflicting Flow All	1043	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	663	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	663	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	D	xxxxx	0.887	D	xxxxx	0.887	+ 0.000
# 2 Pacific Ave & Willow St	D	xxxxx	0.883	D	xxxxx	0.883	+ 0.000
# 3 Long Beach Blvd & Willow St	D	xxxxx	0.854	D	xxxxx	0.854	+ 0.000
# 4 Atlantic Ave & Willow St	D	xxxxx	0.891	D	xxxxx	0.891	+ 0.000
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.588	A	xxxxx	0.588	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	C	xxxxx	0.797	C	xxxxx	0.797	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	D	xxxxx	0.841	D	xxxxx	0.841	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	D	xxxxx	0.831	D	xxxxx	0.831	+ 0.000
# 9 Pacific Ave & Anaheim St	D	xxxxx	0.837	D	xxxxx	0.837	+ 0.000
# 10 Long Beach Blvd & Anaheim St	C	xxxxx	0.743	C	xxxxx	0.743	+ 0.000
# 11 Atlantic Ave & Anaheim St	E	xxxxx	0.912	E	xxxxx	0.912	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	B	xxxxx	0.616	B	xxxxx	0.616	+ 0.000
# 13 Atlantic Ave & Spring St	F	xxxxx	1.012	F	xxxxx	1.012	+ 0.000
# 14 Atlantic Ave & Columbia St	B	xxxxx	0.647	B	xxxxx	0.647	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.887
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	94	Level Of Service:	D

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	60	1030	270	140	810	150	180	620	40	160	490	160
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	1030	270	140	810	150	180	620	40	160	490	160
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1030	270	140	810	150	180	620	40	160	490	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1030	270	140	810	150	180	620	40	160	490	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1030	270	140	810	150	180	620	40	160	490	160
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	1.58	0.42	1.00	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2535	665	1600	2700	500	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.41	0.41	0.09	0.30	0.30	0.11	0.19	0.03	0.10	0.15	0.10
Crit Moves:		****		****				****		****		

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.883
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	D

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	170	530	190	130	490	120	120	1540	180	190	1300	110
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:	170	530	190	130	490	120	120	1540	180	190	1300	110
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:	170	530	190	130	490	120	120	1540	180	190	1300	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	530	190	130	490	120	120	1540	180	190	1300	110
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:	170	530	190	130	490	120	120	1540	180	190	1300	110
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	1.47	0.53	1.00	1.61	0.39	1.00	2.69	0.31	1.00	2.77	0.23
Final Sat.:	1600	2356	844	1600	2570	630	1600	4298	502	1600	4426	374
Capacity Analysis Module:												
Vol/Sat:	0.11	0.22	0.23	0.08	0.19	0.19	0.08	0.36	0.36	0.12	0.29	0.29
Crit Moves:			****	****				****		****		

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.854
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	230	670	150	230	700	220	220	1370	180	170	960	70
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:	230	670	150	230	700	220	220	1370	180	170	960	70
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:	230	670	150	230	700	220	220	1370	180	170	960	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	230	670	150	230	700	220	220	1370	180	170	960	70
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:	230	670	150	230	700	220	220	1370	180	170	960	70
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	2.45	0.55	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	3922	878	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.17	0.17	0.14	0.22	0.14	0.14	0.29	0.11	0.11	0.20	0.04
Crit Moves:	****				****			****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	96	Level Of Service:	D

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	120	610	160	230	710	150	160	1350	120	160	920	110
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:	120	610	160	230	710	150	160	1350	120	160	920	110
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:	120	610	160	230	710	150	160	1350	120	160	920	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	610	160	230	710	150	160	1350	120	160	920	110
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:	120	610	160	230	710	150	160	1350	120	160	920	110
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	1.58	0.42	1.00	1.65	0.35	2.00	2.76	0.24	1.00	2.68	0.32
Final Sat.:	1600	2535	665	1600	2642	558	2880	4408	392	1600	4287	513
Capacity Analysis Module:												
Vol/Sat:	0.08	0.24	0.24	0.14	0.27	0.27	0.06	0.31	0.31	0.10	0.21	0.21
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.588
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Long Beach Blvd							Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R	
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0	
Volume Module:													
Base Vol:	50	910	30	80	890	50	30	140	20	30	140	30	
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:	50	910	30	80	890	50	30	140	20	30	140	30	
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:	50	910	30	80	890	50	30	140	20	30	140	30	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	50	910	30	80	890	50	30	140	20	30	140	30	
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:	50	910	30	80	890	50	30	140	20	30	140	30	
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	1.94	0.06	1.00	1.89	0.11	0.16	0.74	0.10	0.15	0.70	0.15	
Final Sat.:	1600	3098	102	1600	3030	170	253	1179	168	240	1120	240	
Capacity Analysis Module:													
Vol/Sat:	0.03	0.29	0.29	0.05	0.29	0.29	0.02	0.12	0.12	0.02	0.13	0.13	
Crit Moves:		****			****			****			****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	C

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	110	590	120	90	450	100	140	1680	90	80	880	120
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:	110	590	120	90	450	100	140	1680	90	80	880	120
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:	110	590	120	90	450	100	140	1680	90	80	880	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	590	120	90	450	100	140	1680	90	80	880	120
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:	110	590	120	90	450	100	140	1680	90	80	880	120
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	1.66	0.34	1.00	1.64	0.36	1.00	2.85	0.15	1.00	2.64	0.36
Final Sat.:	1600	2659	541	1600	2618	582	1600	4556	244	1600	4224	576
Capacity Analysis Module:												
Vol/Sat:	0.07	0.22	0.22	0.06	0.17	0.17	0.09	0.37	0.37	0.05	0.21	0.21
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.841
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	160	650	100	180	620	120	170	1550	100	130	840	100
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:	160	650	100	180	620	120	170	1550	100	130	840	100
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:	160	650	100	180	620	120	170	1550	100	130	840	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	160	650	100	180	620	120	170	1550	100	130	840	100
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:	160	650	100	180	620	120	170	1550	100	130	840	100
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.82	0.18	1.00	2.68	0.32
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4509	291	1600	4289	511
Capacity Analysis Module:												
Vol/Sat:	0.10	0.20	0.06	0.11	0.19	0.08	0.11	0.34	0.34	0.08	0.20	0.20
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.831
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	D

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	80	700	160	110	680	70	90	1600	110	140	950	70
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:	80	700	160	110	680	70	90	1600	110	140	950	70
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:	80	700	160	110	680	70	90	1600	110	140	950	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	700	160	110	680	70	90	1600	110	140	950	70
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:	80	700	160	110	680	70	90	1600	110	140	950	70
OvlAdjVol:			20									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.81	0.19	1.00	2.79	0.21
Final Sat.:	1600	3200	1600	1600	2901	299	1600	4491	309	1600	4471	329
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.10	0.07	0.23	0.23	0.06	0.36	0.36	0.09	0.21	0.21
OvlAdjV/S:			0.01									
Crit Moves:		****			****				****		****	

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.837
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	80	510	100	80	370	50	100	1390	60	70	830	70
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:	80	510	100	80	370	50	100	1390	60	70	830	70
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:	80	510	100	80	370	50	100	1390	60	70	830	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	510	100	80	370	50	100	1390	60	70	830	70
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:	80	510	100	80	370	50	100	1390	60	70	830	70
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	1.67	0.33	1.00	1.76	0.24	1.00	1.92	0.08	1.00	1.84	0.16
Final Sat.:	1600	2675	525	1600	2819	381	1600	3068	132	1600	2951	249
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.19	0.05	0.13	0.13	0.06	0.45	0.45	0.04	0.28	0.28
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.743
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Long Beach Blvd							Anaheim St					
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	0 1	1	1 0	0 1	1	1 0	
Volume Module:													
Base Vol:	150	650	100	160	560	60	0	1390	90	0	820	100	
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:	150	650	100	160	560	60	0	1390	90	0	820	100	
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:	150	650	100	160	560	60	0	1390	90	0	820	100	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	150	650	100	160	560	60	0	1390	90	0	820	100	
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:	150	650	100	160	560	60	0	1390	90	0	820	100	
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	1.73	0.27	1.00	2.00	1.00	0.00	2.82	0.18	0.00	2.67	0.33	
Final Sat.:	1600	2773	427	1600	3200	1600	0	4508	292	0	4278	522	
Capacity Analysis Module:													
Vol/Sat:	0.09	0.23	0.23	0.10	0.17	0.04	0.00	0.31	0.31	0.00	0.19	0.19	
Crit Moves:		****		****				****		****			

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LONG BEACH BLVD SPECIFIC PLAN
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.912
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	E

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	50	570	110	110	620	80	170	1390	90	110	820	120
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:	50	570	110	110	620	80	170	1390	90	110	820	120
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:	50	570	110	110	620	80	170	1390	90	110	820	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	570	110	110	620	80	170	1390	90	110	820	120
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:	50	570	110	110	620	80	170	1390	90	110	820	120
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	1.68	0.32	1.00	1.77	0.23	1.00	1.88	0.12	1.00	1.74	0.26
Final Sat.:	1600	2682	518	1600	2834	366	1600	3005	195	1600	2791	409
Capacity Analysis Module:												
Vol/Sat:	0.03	0.21	0.21	0.07	0.22	0.22	0.11	0.46	0.46	0.07	0.29	0.29
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.616
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	1250	290	0	1010	240	250	0	320	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:	0	1250	290	0	1010	240	250	0	320	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1250	290	0	1010	0	250	0	320	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1250	290	0	1010	0	250	0	320	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1250	290	0	1010	0	250	0	320	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.44	0.56	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3896	904	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.32	0.00	0.32	0.00	0.16	0.00	0.20	0.00	0.00	0.00
Crit Moves:	****				****				****			

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.012
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	60	1180	220	150	1030	170	310	1020	50	100	570	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	1180	220	150	1030	170	310	1020	50	100	570	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1180	220	150	1030	170	310	1020	50	100	570	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1180	220	150	1030	170	310	1020	50	100	570	110
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1180	220	150	1030	170	310	1020	50	100	570	110
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	1.69	0.31	1.00	1.72	0.28	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2697	503	1600	2747	453	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.44	0.44	0.09	0.37	0.38	0.19	0.32	0.03	0.06	0.18	0.07
Crit Moves:		****		****				****		****		

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE NO PROJECT
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.647
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	50	1160	10	10	1160	30	50	10	60	50	10	120
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:	50	1160	10	10	1160	30	50	10	60	50	10	120
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:	50	1160	10	10	1160	30	50	10	60	50	10	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	1160	10	10	1160	30	50	10	60	50	10	120
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:	50	1160	10	10	1160	30	50	10	60	50	10	120
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	1.98	0.02	1.00	1.95	0.05	0.42	0.08	0.50	0.28	0.05	0.67
Final Sat.:	1600	3173	27	1600	3119	81	667	133	800	444	89	1067
Capacity Analysis Module:												
Vol/Sat:	0.03	0.37	0.37	0.01	0.37	0.37	0.03	0.08	0.08	0.03	0.11	0.11
Crit Moves:	****				****		****				****	

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Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	200	10	10	30	20	900	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	217	11	11	33	22	978	11

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1625	2120	543	1570	2114	495	1087	0	0
Stage 1	1087	1087	-	1027	1027	-	-	-	-
Stage 2	538	1033	-	543	1087	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	68	50	484	75	50	520	638	-	-
Stage 1	231	290	-	251	310	-	-	-	-
Stage 2	495	308	-	492	290	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	51	48	484	40	48	520	638	-	-
Mov Cap-2 Maneuver	51	48	-	40	48	-	-	-	-
Stage 1	223	290	-	242	299	-	-	-	-
Stage 2	432	297	-	271	290	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	18.4	81.5	0.2
HCM LOS	C	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	638	-	-	484	97	695	-	-
HCM Lane V/C Ratio	0.034	-	-	0.449	0.56	-	-	-
HCM Control Delay (s)	10.8	-	-	18.4	81.5	0	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.3	2.6	0	-	-

Intersection			
Int Delay, s/veh			

Movement	SBL	SBT	SBR
Vol, veh/h	0	1000	60
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	95
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	1087	65

Major/Minor	Major2		
Conflicting Flow All	989	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	695	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	695	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Scenario Report

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

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Long Beach Blvd & Spring St	C	xxxxx	0.791	C	xxxxx	0.791	+ 0.000 V/C
# 2 Pacific Ave & Willow St	C	xxxxx	0.790	C	xxxxx	0.790	+ 0.000 V/C
# 3 Long Beach Blvd & Willow St	D	xxxxx	0.842	D	xxxxx	0.842	+ 0.000 V/C
# 4 Atlantic Ave & Willow St	C	xxxxx	0.771	C	xxxxx	0.771	+ 0.000 V/C
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.587	A	xxxxx	0.587	+ 0.000 V/C
# 6 Pacific Ave & Pacific Coast Hi	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000 V/C
# 7 Long Beach Blvd & Pacific Coas	D	xxxxx	0.854	D	xxxxx	0.854	+ 0.000 V/C
# 8 Atlantic Ave & Pacific Coast H	D	xxxxx	0.803	D	xxxxx	0.803	+ 0.000 V/C
# 9 Pacific Ave & Anaheim St	C	xxxxx	0.703	C	xxxxx	0.703	+ 0.000 V/C
# 10 Long Beach Blvd & Anaheim St	A	xxxxx	0.577	A	xxxxx	0.577	+ 0.000 V/C
# 11 Atlantic Ave & Anaheim St	D	xxxxx	0.809	D	xxxxx	0.809	+ 0.000 V/C
# 12 Atlantic Ave & I-405 SB Ramps	C	xxxxx	0.710	C	xxxxx	0.710	+ 0.000 V/C
# 13 Atlantic Ave & Spring St	E	xxxxx	0.927	E	xxxxx	0.927	+ 0.000 V/C
# 14 Atlantic Ave & Columbia St	B	xxxxx	0.695	B	xxxxx	0.695	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
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	1.66	0.34	1.00	1.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2651	549	1600	2809	391	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.34	0.09	0.39	0.39	0.11	0.14	0.03	0.12	0.14	0.06
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
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	1.64	0.36	1.00	1.71	0.29	1.00	2.58	0.42	1.00	2.70	0.30
Final Sat.:	1600	2623	577	1600	2730	470	1600	4123	677	1600	4317	483
Capacity Analysis Module:												
Vol/Sat:	0.11	0.24	0.24	0.06	0.21	0.21	0.11	0.27	0.27	0.09	0.26	0.26
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	228	711	125	189	708	172	258	953	144	132	1041	133
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:	228	711	125	189	708	172	258	953	144	132	1041	133
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:	228	711	125	189	708	172	258	953	144	132	1041	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	711	125	189	708	172	258	953	144	132	1041	133
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:	228	711	125	189	708	172	258	953	144	132	1041	133
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	2.55	0.45	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4082	718	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.17	0.17	0.12	0.22	0.11	0.16	0.20	0.09	0.08	0.22	0.08
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.771
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Atlantic Ave						Willow St					
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	1 1	0	1 0	1 1	0	2 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
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	1.71	0.29	1.00	1.71	0.29	2.00	2.75	0.25	1.00	2.42	0.58
Final Sat.:	1600	2735	465	1600	2732	468	2880	4406	394	1600	3876	924
Capacity Analysis Module:												
Vol/Sat:	0.09	0.27	0.27	0.07	0.22	0.22	0.06	0.20	0.20	0.05	0.27	0.27
Crit Moves:		****		****			****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.587
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			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 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	32	896	22	65	929	34	42	114	29	39	123	52
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	896	22	65	929	34	42	114	29	39	123	52
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	896	22	65	929	34	42	114	29	39	123	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	896	22	65	929	34	42	114	29	39	123	52
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	896	22	65	929	34	42	114	29	39	123	52
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	1.95	0.05	1.00	1.93	0.07	0.23	0.61	0.16	0.18	0.58	0.24
Final Sat.:	1600	3123	77	1600	3087	113	363	986	251	292	920	389
Capacity Analysis Module:												
Vol/Sat:	0.02	0.29	0.29	0.04	0.30	0.30	0.03	0.12	0.12	0.02	0.13	0.13
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	88	445	103	95	567	109	97	962	67	91	1383	127
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:	88	445	103	95	567	109	97	962	67	91	1383	127
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:	88	445	103	95	567	109	97	962	67	91	1383	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	445	103	95	567	109	97	962	67	91	1383	127
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:	88	445	103	95	567	109	97	962	67	91	1383	127
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	1.62	0.38	1.00	1.68	0.32	1.00	2.80	0.20	1.00	2.75	0.25
Final Sat.:	1600	2599	601	1600	2684	516	1600	4487	313	1600	4396	404
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.17	0.06	0.21	0.21	0.06	0.21	0.21	0.06	0.31	0.31
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.854
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	272	678	95	263	618	143	126	992	98	146	1347	90
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:	272	678	95	263	618	143	126	992	98	146	1347	90
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:	272	678	95	263	618	143	126	992	98	146	1347	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	272	678	95	263	618	143	126	992	98	146	1347	90
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:	272	678	95	263	618	143	126	992	98	146	1347	90
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.73	0.27	1.00	2.81	0.19
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4368	432	1600	4499	301
Capacity Analysis Module:												
Vol/Sat:	0.17	0.21	0.06	0.16	0.19	0.09	0.08	0.23	0.23	0.09	0.30	0.30
Crit Moves:		****		****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	103	670	260	62	680	91	130	949	261	190	1403	117
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:	103	670	260	62	680	91	130	949	261	190	1403	117
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:	103	670	260	62	680	91	130	949	261	190	1403	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	670	260	62	680	91	130	949	261	190	1403	117
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:	103	670	260	62	680	91	130	949	261	190	1403	117
OvlAdjVol:			70									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.76	0.24	1.00	2.35	0.65	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	2822	378	1600	3765	1035	1600	4431	369
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.16	0.04	0.24	0.24	0.08	0.25	0.25	0.12	0.32	0.32
OvlAdjV/S:			0.04									
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	80	279	51	103	370	52	62	730	70	52	1139	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:	80	279	51	103	370	52	62	730	70	52	1139	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:	80	279	51	103	370	52	62	730	70	52	1139	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	279	51	103	370	52	62	730	70	52	1139	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:	80	279	51	103	370	52	62	730	70	52	1139	84
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	1.69	0.31	1.00	1.75	0.25	1.00	1.82	0.18	1.00	1.86	0.14
Final Sat.:	1600	2705	495	1600	2806	394	1600	2920	280	1600	2980	220
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.10	0.06	0.13	0.13	0.04	0.25	0.25	0.03	0.38	0.38
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.577
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1 1	0	0 1	1 1	0
Volume Module:												
Base Vol:	150	453	50	128	486	63	4	750	80	0	1000	98
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:	150	453	50	128	486	63	4	750	80	0	1000	98
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:	150	453	50	128	486	63	4	750	80	0	1000	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	453	50	128	486	63	4	750	80	0	1000	98
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:	150	453	50	128	486	63	4	750	80	0	1000	98
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	1.80	0.20	1.00	2.00	1.00	0.01	2.70	0.29	0.00	2.73	0.27
Final Sat.:	1600	2882	318	1600	3200	1600	23	4317	460	0	4372	428
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.16	0.08	0.15	0.04	0.00	0.17	0.17	0.00	0.23	0.23
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	71	471	40	111	560	100	130	607	82	240	1046	162
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:	71	471	40	111	560	100	130	607	82	240	1046	162
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:	71	471	40	111	560	100	130	607	82	240	1046	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	471	40	111	560	100	130	607	82	240	1046	162
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:	71	471	40	111	560	100	130	607	82	240	1046	162
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	1.84	0.16	1.00	1.70	0.30	1.00	1.76	0.24	1.00	1.73	0.27
Final Sat.:	1600	2950	250	1600	2715	485	1600	2819	381	1600	2771	429
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.07	0.21	0.21	0.08	0.22	0.22	0.15	0.38	0.38
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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 1	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	817	320	0	1043	280	160	0	454	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:	0	817	320	0	1043	280	160	0	454	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	817	320	0	1043	0	160	0	454	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	817	320	0	1043	0	160	0	454	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	817	320	0	1043	0	160	0	454	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.16	0.84	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3449	1351	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.00	0.33	0.00	0.10	0.00	0.28	0.00	0.00	0.00
Crit Moves:	****				****				****			

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	115	Level Of Service:	E

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
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	1.84	0.16	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2941	259	1600	2844	356	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.30	0.30	0.06	0.43	0.43	0.09	0.16	0.05	0.16	0.27	0.06
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.695
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	74	934	30	70	1359	102	74	10	54	10	10	10
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:	74	934	30	70	1359	102	74	10	54	10	10	10
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:	74	934	30	70	1359	102	74	10	54	10	10	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	934	30	70	1359	102	74	10	54	10	10	10
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:	74	934	30	70	1359	102	74	10	54	10	10	10
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	1.94	0.06	1.00	1.86	0.14	0.54	0.07	0.39	0.34	0.33	0.33
Final Sat.:	1600	3100	100	1600	2977	223	858	116	626	533	533	533
Capacity Analysis Module:												
Vol/Sat:	0.05	0.30	0.30	0.04	0.46	0.46	0.05	0.09	0.09	0.01	0.02	0.02
Crit Moves:	****				****			****		****		

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Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	97	10	10	30	144	1011	10	0	802	370
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-	-	-	95
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	105	11	11	33	157	1099	11	0	872	402

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1740	2295	436	1853	2289	555	872	0	0	1110	0	0
Stage 1	872	872	-	1417	1417	-	-	-	-	-	-	-
Stage 2	868	1423	-	436	872	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	56	38	568	46	39	475	769	-	-	625	-	-
Stage 1	312	366	-	144	201	-	-	-	-	-	-	-
Stage 2	314	200	-	569	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	32	30	568	32	31	475	769	-	-	625	-	-
Mov Cap-2 Maneuver	32	30	-	32	31	-	-	-	-	-	-	-
Stage 1	248	366	-	115	160	-	-	-	-	-	-	-
Stage 2	217	159	-	463	366	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	141.4	1.3	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	769	-	-	568	72	625	-	-
HCM Lane V/C Ratio	0.204	-	-	0.186	0.755	-	-	-
HCM Control Delay (s)	10.9	-	-	12.8	141.4	0	-	-
HCM Lane LOS	B	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	0.7	3.5	0	-	-

Scenario Report

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

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Long Beach Blvd & Spring St	E	xxxxx	0.927	E	xxxxx	0.927	+ 0.000 V/C
# 2 Pacific Ave & Willow St	E	xxxxx	0.902	E	xxxxx	0.902	+ 0.000 V/C
# 3 Long Beach Blvd & Willow St	D	xxxxx	0.898	D	xxxxx	0.898	+ 0.000 V/C
# 4 Atlantic Ave & Willow St	E	xxxxx	0.921	E	xxxxx	0.921	+ 0.000 V/C
# 5 Long Beach Blvd & Hill St	B	xxxxx	0.612	B	xxxxx	0.612	+ 0.000 V/C
# 6 Pacific Ave & Pacific Coast Hi	D	xxxxx	0.808	D	xxxxx	0.808	+ 0.000 V/C
# 7 Long Beach Blvd & Pacific Coas	D	xxxxx	0.859	D	xxxxx	0.859	+ 0.000 V/C
# 8 Atlantic Ave & Pacific Coast H	D	xxxxx	0.847	D	xxxxx	0.847	+ 0.000 V/C
# 9 Pacific Ave & Anaheim St	D	xxxxx	0.844	D	xxxxx	0.844	+ 0.000 V/C
# 10 Long Beach Blvd & Anaheim St	C	xxxxx	0.745	C	xxxxx	0.745	+ 0.000 V/C
# 11 Atlantic Ave & Anaheim St	E	xxxxx	0.913	E	xxxxx	0.913	+ 0.000 V/C
# 12 Atlantic Ave & I-405 SB Ramps	B	xxxxx	0.656	B	xxxxx	0.656	+ 0.000 V/C
# 13 Atlantic Ave & Spring St	F	xxxxx	1.056	F	xxxxx	1.056	+ 0.000 V/C
# 14 Atlantic Ave & Columbia St	C	xxxxx	0.735	C	xxxxx	0.735	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	115	Level Of Service:	E

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	63	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
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	1.60	0.40	1.00	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2554	646	1600	2701	499	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.43	0.43	0.09	0.35	0.35	0.12	0.20	0.03	0.11	0.16	0.10
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.902
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	101	Level Of Service:	E

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
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	1.48	0.52	1.00	1.60	0.40	1.00	2.69	0.31	1.00	2.75	0.25
Final Sat.:	1600	2362	838	1600	2565	635	1600	4305	495	1600	4407	393
Capacity Analysis Module:												
Vol/Sat:	0.11	0.23	0.23	0.09	0.19	0.19	0.08	0.37	0.37	0.12	0.30	0.30
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	D

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	232	700	147	251	786	247	241	1401	193	185	1000	89
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:	232	700	147	251	786	247	241	1401	193	185	1000	89
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:	232	700	147	251	786	247	241	1401	193	185	1000	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	232	700	147	251	786	247	241	1401	193	185	1000	89
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:	232	700	147	251	786	247	241	1401	193	185	1000	89
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	2.48	0.52	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	3967	833	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.18	0.18	0.16	0.25	0.15	0.15	0.29	0.12	0.12	0.21	0.06
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.921
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Street Name:	Atlantic Ave						Willow St					
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	1 1	0	1 0	1 1	0	2 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
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	1.60	0.40	1.00	1.62	0.38	2.00	2.76	0.24	1.00	2.65	0.35
Final Sat.:	1600	2553	647	1600	2588	612	2880	4415	385	1600	4242	558
Capacity Analysis Module:												
Vol/Sat:	0.08	0.25	0.25	0.16	0.29	0.29	0.06	0.31	0.31	0.10	0.23	0.23
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.612
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	51	945	31	84	969	54	35	143	24	34	143	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:	51	945	31	84	969	54	35	143	24	34	143	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:	51	945	31	84	969	54	35	143	24	34	143	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	945	31	84	969	54	35	143	24	34	143	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:	51	945	31	84	969	54	35	143	24	34	143	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	1.94	0.06	1.00	1.89	0.11	0.17	0.71	0.12	0.16	0.67	0.17
Final Sat.:	1600	3098	102	1600	3031	169	277	1133	190	257	1079	264
Capacity Analysis Module:												
Vol/Sat:	0.03	0.30	0.31	0.05	0.32	0.32	0.02	0.13	0.13	0.02	0.13	0.13
Crit Moves:			****	****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.808
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	112	593	121	95	453	102	143	1708	93	81	894	128
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	593	121	95	453	102	143	1708	93	81	894	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	112	593	121	95	453	102	143	1708	93	81	894	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	593	121	95	453	102	143	1708	93	81	894	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	593	121	95	453	102	143	1708	93	81	894	128
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	1.66	0.34	1.00	1.63	0.37	1.00	2.85	0.15	1.00	2.62	0.38
Final Sat.:	1600	2658	542	1600	2612	588	1600	4552	248	1600	4199	601
Capacity Analysis Module:												
Vol/Sat:	0.07	0.22	0.22	0.06	0.17	0.17	0.09	0.38	0.38	0.05	0.21	0.21
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.859
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	D

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	149	630	90	206	629	134	197	1570	100	137	862	144
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:	149	630	90	206	629	134	197	1570	100	137	862	144
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:	149	630	90	206	629	134	197	1570	100	137	862	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	149	630	90	206	629	134	197	1570	100	137	862	144
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:	149	630	90	206	629	134	197	1570	100	137	862	144
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.82	0.18	1.00	2.57	0.43
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4513	287	1600	4113	687
Capacity Analysis Module:												
Vol/Sat:	0.09	0.20	0.06	0.13	0.20	0.08	0.12	0.35	0.35	0.09	0.21	0.21
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.847
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	D

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	81	700	160	127	680	84	103	1625	111	140	1000	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:	81	700	160	127	680	84	103	1625	111	140	1000	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:	81	700	160	127	680	84	103	1625	111	140	1000	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	700	160	127	680	84	103	1625	111	140	1000	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:	81	700	160	127	680	84	103	1625	111	140	1000	84
OvlAdjVol:			20									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.78	0.22	1.00	2.81	0.19	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	2848	352	1600	4493	307	1600	4428	372
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.10	0.08	0.24	0.24	0.06	0.36	0.36	0.09	0.23	0.23
OvlAdjV/S:			0.01									
Crit Moves:	****			****				****		****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.844
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	D

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	80	512	101	85	372	51	101	1397	60	70	829	73
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:	80	512	101	85	372	51	101	1397	60	70	829	73
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:	80	512	101	85	372	51	101	1397	60	70	829	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	512	101	85	372	51	101	1397	60	70	829	73
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:	80	512	101	85	372	51	101	1397	60	70	829	73
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	1.67	0.33	1.00	1.76	0.24	1.00	1.92	0.08	1.00	1.84	0.16
Final Sat.:	1600	2673	527	1600	2814	386	1600	3068	132	1600	2941	259
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.19	0.05	0.13	0.13	0.06	0.46	0.46	0.04	0.28	0.28
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.745
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1 1	0	0 1	1 1	0
Volume Module:												
Base Vol:	150	654	100	160	560	57	4	1390	90	0	820	110
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:	150	654	100	160	560	57	4	1390	90	0	820	110
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:	150	654	100	160	560	57	4	1390	90	0	820	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	654	100	160	560	57	4	1390	90	0	820	110
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:	150	654	100	160	560	57	4	1390	90	0	820	110
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	1.73	0.27	1.00	2.00	1.00	0.01	2.81	0.18	0.00	2.65	0.35
Final Sat.:	1600	2776	424	1600	3200	1600	13	4496	291	0	4232	568
Capacity Analysis Module:												
Vol/Sat:	0.09	0.24	0.24	0.10	0.17	0.04	0.00	0.31	0.31	0.00	0.19	0.19
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.913
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	E

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	51	570	110	111	620	80	170	1390	90	110	830	121
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:	51	570	110	111	620	80	170	1390	90	110	830	121
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:	51	570	110	111	620	80	170	1390	90	110	830	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	570	110	111	620	80	170	1390	90	110	830	121
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:	51	570	110	111	620	80	170	1390	90	110	830	121
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	1.68	0.32	1.00	1.77	0.23	1.00	1.88	0.12	1.00	1.75	0.25
Final Sat.:	1600	2682	518	1600	2834	366	1600	3005	195	1600	2793	407
Capacity Analysis Module:												
Vol/Sat:	0.03	0.21	0.21	0.07	0.22	0.22	0.11	0.46	0.46	0.07	0.30	0.30
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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 1	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	1311	335	0	1082	240	250	0	349	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:	0	1311	335	0	1082	240	250	0	349	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1311	335	0	1082	0	250	0	349	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1311	335	0	1082	0	250	0	349	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1311	335	0	1082	0	250	0	349	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.39	0.61	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3823	977	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.00	0.34	0.00	0.16	0.00	0.22	0.00	0.00	0.00
Crit Moves:	****				****				****			

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.056
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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	1.70	0.30	1.00	1.72	0.28	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2714	486	1600	2760	440	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.47	0.47	0.09	0.41	0.41	0.20	0.32	0.04	0.07	0.18	0.07
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	79	1220	10	10	1214	82	109	10	93	50	10	120
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:	79	1220	10	10	1214	82	109	10	93	50	10	120
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:	79	1220	10	10	1214	82	109	10	93	50	10	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	1220	10	10	1214	82	109	10	93	50	10	120
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:	79	1220	10	10	1214	82	109	10	93	50	10	120
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	1.98	0.02	1.00	1.87	0.13	0.51	0.05	0.44	0.28	0.05	0.67
Final Sat.:	1600	3174	26	1600	2998	202	823	75	702	444	89	1067
Capacity Analysis Module:												
Vol/Sat:	0.05	0.38	0.38	0.01	0.41	0.40	0.07	0.13	0.13	0.03	0.11	0.11
Crit Moves:	****				****		****				****	

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	223	10	10	30	40	953	10	0	1062	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	65	-	-	-	-	95
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	242	11	11	33	43	1036	11	0	1154	65

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1764	2288	577	1705	2282	523	1154	0	0	1047	0	0
Stage 1	1154	1154	-	1128	1128	-	-	-	-	-	-	-
Stage 2	610	1134	-	577	1154	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	53	39	460	59	39	499	601	-	-	660	-	-
Stage 1	210	270	-	218	278	-	-	-	-	-	-	-
Stage 2	448	276	-	469	270	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	36	36	460	26	36	499	601	-	-	660	-	-
Mov Cap-2 Maneuver	36	36	-	26	36	-	-	-	-	-	-	-
Stage 1	195	270	-	202	258	-	-	-	-	-	-	-
Stage 2	372	256	-	222	270	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.2	153.5	0.5	0
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	601	-	-	460	69	660	-	-
HCM Lane V/C Ratio	0.072	-	-	0.527	0.788	-	-	-
HCM Control Delay (s)	11.5	-	-	21.2	153.5	0	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	3	3.7	0	-	-

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	C	xxxxx	0.791	C	xxxxx	0.791	+ 0.000
# 2 Pacific Ave & Willow St	C	xxxxx	0.790	C	xxxxx	0.790	+ 0.000
# 3 Long Beach Blvd & Willow St	D	xxxxx	0.834	D	xxxxx	0.834	+ 0.000
# 4 Atlantic Ave & Willow St	C	xxxxx	0.771	C	xxxxx	0.771	+ 0.000
# 5 Long Beach Blvd & Hill St	A	xxxxx	0.563	A	xxxxx	0.563	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	D	xxxxx	0.858	D	xxxxx	0.858	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	D	xxxxx	0.803	D	xxxxx	0.803	+ 0.000
# 9 Pacific Ave & Anaheim St	C	xxxxx	0.703	C	xxxxx	0.703	+ 0.000
# 10 Long Beach Blvd & Anaheim St	B	xxxxx	0.601	B	xxxxx	0.601	+ 0.000
# 11 Atlantic Ave & Anaheim St	D	xxxxx	0.809	D	xxxxx	0.809	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	C	xxxxx	0.710	C	xxxxx	0.710	+ 0.000
# 13 Atlantic Ave & Spring St	E	xxxxx	0.927	E	xxxxx	0.927	+ 0.000
# 14 Atlantic Ave & Columbia St	B	xxxxx	0.695	B	xxxxx	0.695	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
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	1.66	0.34	1.00	1.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2651	549	1600	2809	391	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.34	0.09	0.39	0.39	0.11	0.14	0.03	0.12	0.14	0.06
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
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	1.64	0.36	1.00	1.71	0.29	1.00	2.58	0.42	1.00	2.70	0.30
Final Sat.:	1600	2623	577	1600	2730	470	1600	4123	677	1600	4317	483
Capacity Analysis Module:												
Vol/Sat:	0.11	0.24	0.24	0.06	0.21	0.21	0.11	0.27	0.27	0.09	0.26	0.26
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.834
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	D

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	213	751	107	189	749	172	240	953	144	132	1041	94
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:	213	751	107	189	749	172	240	953	144	132	1041	94
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:	213	751	107	189	749	172	240	953	144	132	1041	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	213	751	107	189	749	172	240	953	144	132	1041	94
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:	213	751	107	189	749	172	240	953	144	132	1041	94
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	2.63	0.37	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4201	599	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.18	0.18	0.12	0.23	0.11	0.15	0.20	0.09	0.08	0.22	0.06
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.771
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
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	1.71	0.29	1.00	1.71	0.29	2.00	2.75	0.25	1.00	2.42	0.58
Final Sat.:	1600	2735	465	1600	2732	468	2880	4406	394	1600	3876	924
Capacity Analysis Module:												
Vol/Sat:	0.09	0.27	0.27	0.07	0.22	0.22	0.06	0.20	0.20	0.05	0.27	0.27
Crit Moves:		****			****			****			****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.563
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	27	963	5	43	1016	24	23	114	7	19	123	29
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:	27	963	5	43	1016	24	23	114	7	19	123	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	963	5	43	1016	24	23	114	7	19	123	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	963	5	43	1016	24	23	114	7	19	123	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	963	5	43	1016	24	23	114	7	19	123	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.95	0.05	0.16	0.79	0.05	0.11	0.72	0.17
Final Sat.:	1600	3183	17	1600	3126	74	256	1267	78	178	1151	271
Capacity Analysis Module:												
Vol/Sat:	0.02	0.30	0.30	0.03	0.32	0.33	0.01	0.09	0.09	0.01	0.11	0.11
Crit Moves:	****					****	****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	88	445	103	95	567	109	97	962	67	91	1383	127
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:	88	445	103	95	567	109	97	962	67	91	1383	127
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:	88	445	103	95	567	109	97	962	67	91	1383	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	445	103	95	567	109	97	962	67	91	1383	127
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:	88	445	103	95	567	109	97	962	67	91	1383	127
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	1.62	0.38	1.00	1.68	0.32	1.00	2.80	0.20	1.00	2.75	0.25
Final Sat.:	1600	2599	601	1600	2684	516	1600	4487	313	1600	4396	404
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.17	0.06	0.21	0.21	0.06	0.21	0.21	0.06	0.31	0.31
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.858
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	D

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	262	804	63	243	681	137	103	992	74	68	1347	49
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:	262	804	63	243	681	137	103	992	74	68	1347	49
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:	262	804	63	243	681	137	103	992	74	68	1347	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	804	63	243	681	137	103	992	74	68	1347	49
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:	262	804	63	243	681	137	103	992	74	68	1347	49
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.79	0.21	1.00	2.89	0.11
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4467	333	1600	4632	168
Capacity Analysis Module:												
Vol/Sat:	0.16	0.25	0.04	0.15	0.21	0.09	0.06	0.22	0.22	0.04	0.29	0.29
Crit Moves:		****		****			****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	103	670	260	62	680	91	130	949	261	190	1403	117
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:	103	670	260	62	680	91	130	949	261	190	1403	117
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:	103	670	260	62	680	91	130	949	261	190	1403	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	670	260	62	680	91	130	949	261	190	1403	117
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:	103	670	260	62	680	91	130	949	261	190	1403	117
OvlAdjVol:			70									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.76	0.24	1.00	2.35	0.65	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	2822	378	1600	3765	1035	1600	4431	369
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.16	0.04	0.24	0.24	0.08	0.25	0.25	0.12	0.32	0.32
OvlAdjV/S:			0.04									
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	80	279	51	103	370	52	62	730	70	52	1139	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:	80	279	51	103	370	52	62	730	70	52	1139	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:	80	279	51	103	370	52	62	730	70	52	1139	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	279	51	103	370	52	62	730	70	52	1139	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:	80	279	51	103	370	52	62	730	70	52	1139	84
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	1.69	0.31	1.00	1.75	0.25	1.00	1.82	0.18	1.00	1.86	0.14
Final Sat.:	1600	2705	495	1600	2806	394	1600	2920	280	1600	2980	220
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.10	0.06	0.13	0.13	0.04	0.25	0.25	0.03	0.38	0.38
Crit Moves:	****				****		****				****	

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.601
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1	1 0	0 1	1	1 0
Volume Module:												
Base Vol:	150	495	50	116	564	24	4	750	52	0	1000	98
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:	150	495	50	116	564	24	4	750	52	0	1000	98
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:	150	495	50	116	564	24	4	750	52	0	1000	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	495	50	116	564	24	4	750	52	0	1000	98
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:	150	495	50	116	564	24	4	750	52	0	1000	98
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	1.82	0.18	1.00	2.00	1.00	0.01	2.80	0.19	0.00	2.73	0.27
Final Sat.:	1600	2906	294	1600	3200	1600	24	4467	310	0	4372	428
Capacity Analysis Module:												
Vol/Sat:	0.09	0.17	0.17	0.07	0.18	0.02	0.00	0.17	0.17	0.00	0.23	0.23
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	71	471	40	111	560	100	130	607	82	240	1046	162
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:	71	471	40	111	560	100	130	607	82	240	1046	162
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:	71	471	40	111	560	100	130	607	82	240	1046	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	471	40	111	560	100	130	607	82	240	1046	162
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:	71	471	40	111	560	100	130	607	82	240	1046	162
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	1.84	0.16	1.00	1.70	0.30	1.00	1.76	0.24	1.00	1.73	0.27
Final Sat.:	1600	2950	250	1600	2715	485	1600	2819	381	1600	2771	429
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.07	0.21	0.21	0.08	0.22	0.22	0.15	0.38	0.38
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	817	320	0	1043	280	160	0	454	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:	0	817	320	0	1043	280	160	0	454	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	817	320	0	1043	0	160	0	454	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	817	320	0	1043	0	160	0	454	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	817	320	0	1043	0	160	0	454	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.16	0.84	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3449	1351	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.00	0.33	0.00	0.10	0.00	0.28	0.00	0.00	0.00
Crit Moves:	****				****				****			

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	115	Level Of Service:	E

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
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	1.84	0.16	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2941	259	1600	2844	356	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.30	0.30	0.06	0.43	0.43	0.09	0.16	0.05	0.16	0.27	0.06
Crit Moves:	****				****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
AM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.695
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	74	934	30	70	1359	102	74	10	54	10	10	10
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:	74	934	30	70	1359	102	74	10	54	10	10	10
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:	74	934	30	70	1359	102	74	10	54	10	10	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	934	30	70	1359	102	74	10	54	10	10	10
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:	74	934	30	70	1359	102	74	10	54	10	10	10
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	1.94	0.06	1.00	1.86	0.14	0.54	0.07	0.39	0.34	0.33	0.33
Final Sat.:	1600	3100	100	1600	2977	223	858	116	626	533	533	533
Capacity Analysis Module:												
Vol/Sat:	0.05	0.30	0.30	0.04	0.46	0.46	0.05	0.09	0.09	0.01	0.02	0.02
Crit Moves:	****				****			****		****		

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Scenario Report

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

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Long Beach Blvd & Spring St	E	xxxxx	0.927	E	xxxxx	0.927	+ 0.000
# 2 Pacific Ave & Willow St	E	xxxxx	0.902	E	xxxxx	0.902	+ 0.000
# 3 Long Beach Blvd & Willow St	D	xxxxx	0.889	D	xxxxx	0.889	+ 0.000
# 4 Atlantic Ave & Willow St	E	xxxxx	0.921	E	xxxxx	0.921	+ 0.000
# 5 Long Beach Blvd & Hill St	B	xxxxx	0.605	B	xxxxx	0.605	+ 0.000
# 6 Pacific Ave & Pacific Coast Hi	D	xxxxx	0.808	D	xxxxx	0.808	+ 0.000
# 7 Long Beach Blvd & Pacific Coas	D	xxxxx	0.835	D	xxxxx	0.835	+ 0.000
# 8 Atlantic Ave & Pacific Coast H	D	xxxxx	0.847	D	xxxxx	0.847	+ 0.000
# 9 Pacific Ave & Anaheim St	D	xxxxx	0.844	D	xxxxx	0.844	+ 0.000
# 10 Long Beach Blvd & Anaheim St	C	xxxxx	0.757	C	xxxxx	0.757	+ 0.000
# 11 Atlantic Ave & Anaheim St	E	xxxxx	0.913	E	xxxxx	0.913	+ 0.000
# 12 Atlantic Ave & I-405 SB Ramps	B	xxxxx	0.656	B	xxxxx	0.656	+ 0.000
# 13 Atlantic Ave & Spring St	F	xxxxx	1.056	F	xxxxx	1.056	+ 0.000
# 14 Atlantic Ave & Columbia St	C	xxxxx	0.735	C	xxxxx	0.735	+ 0.000

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	115	Level Of Service:	E

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	63	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
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	1.60	0.40	1.00	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2554	646	1600	2701	499	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.43	0.43	0.09	0.35	0.35	0.12	0.20	0.03	0.11	0.16	0.10
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.902
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	101	Level Of Service:	E

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
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	1.48	0.52	1.00	1.60	0.40	1.00	2.69	0.31	1.00	2.75	0.25
Final Sat.:	1600	2362	838	1600	2565	635	1600	4305	495	1600	4407	393
Capacity Analysis Module:												
Vol/Sat:	0.11	0.23	0.23	0.09	0.19	0.19	0.08	0.37	0.37	0.12	0.30	0.30
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Long Beach Blvd & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.889
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	95	Level Of Service:	D

Street Name:	Long Beach Blvd						Willow St					
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	2 1	0	1 0	2 0	1	1 0	3 0	1	1 0	3 0	1
Volume Module:												
Base Vol:	185	743	116	251	850	247	216	1401	193	185	1000	51
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:	185	743	116	251	850	247	216	1401	193	185	1000	51
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:	185	743	116	251	850	247	216	1401	193	185	1000	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	185	743	116	251	850	247	216	1401	193	185	1000	51
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:	185	743	116	251	850	247	216	1401	193	185	1000	51
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	2.59	0.41	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	4152	648	1600	3200	1600	1600	4800	1600	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.18	0.18	0.16	0.27	0.15	0.14	0.29	0.12	0.12	0.21	0.03
Crit Moves:	****				****			****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.921
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Street Name:	Atlantic Ave						Willow St					
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	1	1 0	1 0	1	1 0	2 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
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	1.60	0.40	1.00	1.62	0.38	2.00	2.76	0.24	1.00	2.65	0.35
Final Sat.:	1600	2553	647	1600	2588	612	2880	4415	385	1600	4242	558
Capacity Analysis Module:												
Vol/Sat:	0.08	0.25	0.25	0.16	0.29	0.29	0.06	0.31	0.31	0.10	0.23	0.23
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Long Beach Blvd & Hill St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Long Beach Blvd						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	34	1071	11	59	1032	15	22	143	4	23	143	20
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	1071	11	59	1032	15	22	143	4	23	143	20
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	1071	11	59	1032	15	22	143	4	23	143	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	1071	11	59	1032	15	22	143	4	23	143	20
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	1071	11	59	1032	15	22	143	4	23	143	20
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	1.98	0.02	1.00	1.97	0.03	0.13	0.85	0.02	0.12	0.77	0.11
Final Sat.:	1600	3167	33	1600	3154	46	208	1354	38	198	1230	172
Capacity Analysis Module:												
Vol/Sat:	0.02	0.34	0.34	0.04	0.33	0.33	0.01	0.11	0.11	0.01	0.12	0.12
Crit Moves:		****			****		****				****	

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Pacific Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.808
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Pacific Ave						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:	Permitted			Permitted			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	1	1 0	1 0	1	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	112	593	121	95	453	102	143	1708	93	81	894	128
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	593	121	95	453	102	143	1708	93	81	894	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	112	593	121	95	453	102	143	1708	93	81	894	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	593	121	95	453	102	143	1708	93	81	894	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	593	121	95	453	102	143	1708	93	81	894	128
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	1.66	0.34	1.00	1.63	0.37	1.00	2.85	0.15	1.00	2.62	0.38
Final Sat.:	1600	2658	542	1600	2612	588	1600	4552	248	1600	4199	601
Capacity Analysis Module:												
Vol/Sat:	0.07	0.22	0.22	0.06	0.17	0.17	0.09	0.38	0.38	0.05	0.21	0.21
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Long Beach Blvd & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.835
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Street Name:	Long Beach Blvd						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:	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 0	1	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	120	795	21	189	765	120	176	1570	73	42	862	38
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:	120	795	21	189	765	120	176	1570	73	42	862	38
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:	120	795	21	189	765	120	176	1570	73	42	862	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	795	21	189	765	120	176	1570	73	42	862	38
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:	120	795	21	189	765	120	176	1570	73	42	862	38
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.87	0.13	1.00	2.87	0.13
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4587	213	1600	4597	203
Capacity Analysis Module:												
Vol/Sat:	0.08	0.25	0.01	0.12	0.24	0.08	0.11	0.34	0.34	0.03	0.19	0.19
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Atlantic Ave & Pacific Coast Highway

Cycle (sec):	100	Critical Vol./Cap.(X):	0.847
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	D

Street Name:	Atlantic Ave						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:	Permitted			Permitted			Protected			Protected		
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:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	81	700	160	127	680	84	103	1625	111	140	1000	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:	81	700	160	127	680	84	103	1625	111	140	1000	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:	81	700	160	127	680	84	103	1625	111	140	1000	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	700	160	127	680	84	103	1625	111	140	1000	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:	81	700	160	127	680	84	103	1625	111	140	1000	84
OvlAdjVol:			20									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.78	0.22	1.00	2.81	0.19	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	2848	352	1600	4493	307	1600	4428	372
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.10	0.08	0.24	0.24	0.06	0.36	0.36	0.09	0.23	0.23
OvlAdjV/S:			0.01									
Crit Moves:		****		****				****		****		

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Pacific Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.844
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	D

Street Name:	Pacific Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	80	512	101	85	372	51	101	1397	60	70	829	73
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:	80	512	101	85	372	51	101	1397	60	70	829	73
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:	80	512	101	85	372	51	101	1397	60	70	829	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	512	101	85	372	51	101	1397	60	70	829	73
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:	80	512	101	85	372	51	101	1397	60	70	829	73
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	1.67	0.33	1.00	1.76	0.24	1.00	1.92	0.08	1.00	1.84	0.16
Final Sat.:	1600	2673	527	1600	2814	386	1600	3068	132	1600	2941	259
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.19	0.05	0.13	0.13	0.06	0.46	0.46	0.04	0.28	0.28
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Long Beach Blvd & Anaheim St

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

Street Name:	Long Beach Blvd						Anaheim St					
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	0 1	1	1 0	0 1	1	1 0
Volume Module:												
Base Vol:	150	752	100	136	644	0	4	1390	73	0	820	110
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:	150	752	100	136	644	0	4	1390	73	0	820	110
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:	150	752	100	136	644	0	4	1390	73	0	820	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	752	100	136	644	0	4	1390	73	0	820	110
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:	150	752	100	136	644	0	4	1390	73	0	820	110
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	2.00	1.00	0.01	2.84	0.15	0.00	2.65	0.35
Final Sat.:	1600	2824	376	1600	3200	1600	13	4548	239	0	4232	568
Capacity Analysis Module:												
Vol/Sat:	0.09	0.27	0.27	0.09	0.20	0.00	0.00	0.31	0.31	0.00	0.19	0.19
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Atlantic Ave & Anaheim St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.913
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	E

Street Name:	Atlantic Ave						Anaheim St					
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			Prot+Permit			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	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	51	570	110	111	620	80	170	1390	90	110	830	121
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:	51	570	110	111	620	80	170	1390	90	110	830	121
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:	51	570	110	111	620	80	170	1390	90	110	830	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	570	110	111	620	80	170	1390	90	110	830	121
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:	51	570	110	111	620	80	170	1390	90	110	830	121
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	1.68	0.32	1.00	1.77	0.23	1.00	1.88	0.12	1.00	1.75	0.25
Final Sat.:	1600	2682	518	1600	2834	366	1600	3005	195	1600	2793	407
Capacity Analysis Module:												
Vol/Sat:	0.03	0.21	0.21	0.07	0.22	0.22	0.11	0.46	0.46	0.07	0.30	0.30
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Atlantic Ave & I-405 SB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Atlantic Ave						I-405 SB Ramps					
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			Ignore			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	1 0	0 0	2	0 1	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	1311	335	0	1082	240	250	0	349	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:	0	1311	335	0	1082	240	250	0	349	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1311	335	0	1082	0	250	0	349	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1311	335	0	1082	0	250	0	349	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1311	335	0	1082	0	250	0	349	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.39	0.61	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3823	977	0	3200	1600	1600	0	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.00	0.34	0.00	0.16	0.00	0.22	0.00	0.00	0.00
Crit Moves:	****				****				****			

LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	1.056
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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	1.70	0.30	1.00	1.72	0.28	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2714	486	1600	2760	440	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.47	0.47	0.09	0.41	0.41	0.20	0.32	0.04	0.07	0.18	0.07
Crit Moves:		****		****				****		****		

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LONG BEACH BLVD SPECIFIC PLAN
CUMULATIVE PLUS PROJECT NO STREETLETS
PM PEAK HOUR

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Atlantic Ave & Columbia St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Atlantic Ave						Columbia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Prot+Permit			Prot+Permit			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	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	79	1220	10	10	1214	82	109	10	93	50	10	120
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:	79	1220	10	10	1214	82	109	10	93	50	10	120
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:	79	1220	10	10	1214	82	109	10	93	50	10	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	1220	10	10	1214	82	109	10	93	50	10	120
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:	79	1220	10	10	1214	82	109	10	93	50	10	120
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	1.98	0.02	1.00	1.87	0.13	0.51	0.05	0.44	0.28	0.05	0.67
Final Sat.:	1600	3174	26	1600	2998	202	823	75	702	444	89	1067
Capacity Analysis Module:												
Vol/Sat:	0.05	0.38	0.38	0.01	0.41	0.40	0.07	0.13	0.13	0.03	0.11	0.11
Crit Moves:	****				****		****				****	

APPENDIX C: TRAFFIC SIGNAL WARRANTS

FEHR PEERS

Sheet No	1	of	1

Project	Long Beach Blvd (Midtown)
Scenario	Cumulative Plus Project
Peak Hour	AM

Major Street	Atlantic Avenue
Minor Street	27th Street

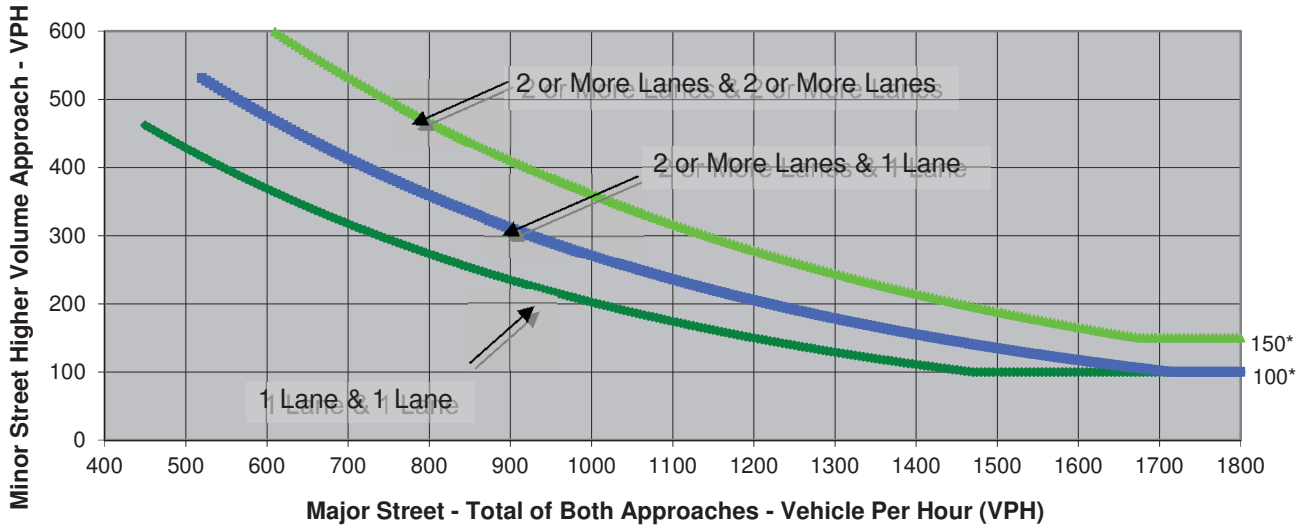
Turn Movement Volumes

	NB	SB	EB	WB
Left	144	0	0	10
Through	1,011	802	0	10
Right	10	370	97	30
Total	1,165	1,172	97	50

Major Street Direction

x	North/South
	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street	Minor Street	Warrant Met
	Atlantic Avenue	27th Street	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**2,337**	**97**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No	1	of	1

Project	Long Beach Blvd (Midtown)
Scenario	Cumulative Plus Project
Peak Hour	PM

Major Street	Atlantic Avenue
Minor Street	27th Street

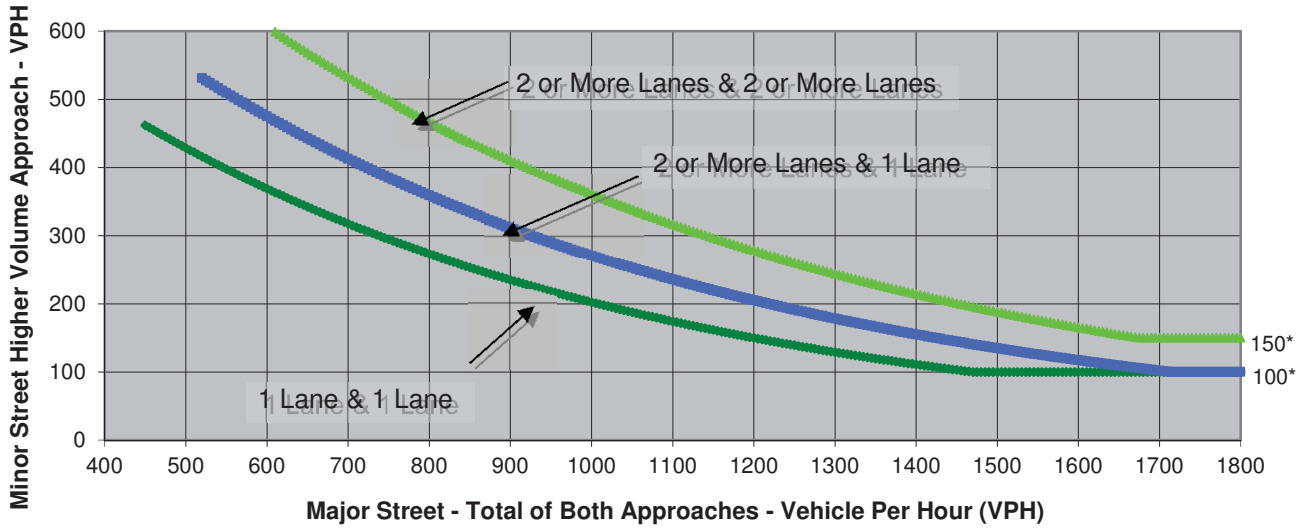
Turn Movement Volumes

	NB	SB	EB	WB
Left	40	0	0	10
Through	953	1,062	0	10
Right	10	60	223	30
Total	1,003	1,122	223	50

Major Street Direction

x	North/South
	East/West

Figure 4C-3. Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2012

	Major Street	Minor Street	Warrant Met
	Atlantic Avenue	27th Street	
Number of Approach Lanes	**2**	**1**	**YES**
Traffic Volume (VPH) *	**2,125**	**223**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

APPENDIX D: MITIGATED LOS REPORTS

Scenario Report

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

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 13 Atlantic Ave & Spring St	D	xxxxx	0.870	D	xxxxx	0.870	+ 0.000 V/C

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.870
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	87	Level Of Service:	D

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1115	201	130	974	154	267	890	47	99	502	93
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:	62	1115	201	130	974	154	267	890	47	99	502	93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.73	0.27	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2763	437	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.35	0.13	0.08	0.35	0.35	0.17	0.28	0.03	0.06	0.16	0.06
Crit Moves:		****		****				****		****		

Scenario Report

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

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Long Beach Blvd & Spring St	C	xxxxx	0.778	C	xxxxx	0.778	+ 0.000 V/C
# 2 Pacific Ave & Willow St	C	xxxxx	0.790	C	xxxxx	0.790	+ 0.000 V/C
# 4 Atlantic Ave & Willow St	C	xxxxx	0.742	C	xxxxx	0.742	+ 0.000 V/C
# 13 Atlantic Ave & Spring St	D	xxxxx	0.879	D	xxxxx	0.879	+ 0.000 V/C
# 15 Atlantic Ave & 27th St	B	14.2	0.441	B	14.2	0.441	+ 0.000 D/V

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	899	186	140	1086	151	182	449	54	199	454	100
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:	43	899	186	140	1086	151	182	449	54	199	454	100
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2809	391	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.28	0.12	0.09	0.39	0.39	0.11	0.14	0.03	0.12	0.14	0.06
Crit Moves:	****				****			****			****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	627	138	88	586	101	176	1127	185	150	1108	124
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:	174	627	138	88	586	101	176	1127	185	150	1108	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.71	0.29	1.00	2.58	0.42	1.00	2.70	0.30
Final Sat.:	1600	3200	1600	1600	2730	470	1600	4123	677	1600	4317	483
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.09	0.06	0.21	0.21	0.11	0.27	0.27	0.09	0.26	0.26
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.742
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Atlantic Ave						Willow St					
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	2 0	1	1 0	1 1	0	2 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	742	126	115	602	103	163	894	80	87	1053	251
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:	150	742	126	115	602	103	163	894	80	87	1053	251
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	1.00	1.00	1.71	0.29	2.00	2.75	0.25	1.00	2.42	0.58
Final Sat.:	1600	3200	1600	1600	2732	468	2880	4406	394	1600	3876	924
Capacity Analysis Module:												
Vol/Sat:	0.09	0.23	0.08	0.07	0.22	0.22	0.06	0.20	0.20	0.05	0.27	0.27
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.879
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	876	77	100	1224	153	151	517	77	260	856	100
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:	55	876	77	100	1224	153	151	517	77	260	856	100
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.27	0.05	0.06	0.38	0.10	0.09	0.16	0.05	0.16	0.27	0.06
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Atlantic Ave & 27th St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.441
Loss Time (sec):	10	Average Delay (sec/veh):	14.2
Optimal Cycle:	33	Level Of Service:	B

Street Name:	Atlantic Ave						27th St					
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	1 1	0	0 0	2 0	1	0 0	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	144	1011	10	0	802	370	0	0	97	10	10	30
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:	144	1011	10	0	802	370	0	0	97	10	10	30
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:	144	1011	10	0	802	370	0	0	97	10	10	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	1011	10	0	802	370	0	0	97	10	10	30
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:	144	1011	10	0	802	370	0	0	97	10	10	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	1.00	0.95	0.85	1.00	1.00	0.87	0.91	0.91	0.91
Lanes:	1.00	1.98	0.02	0.00	2.00	1.00	0.00	0.00	1.00	0.20	0.20	0.60
Final Sat.:	1805	3571	35	0	3610	1615	0	0	1644	346	346	1037
Capacity Analysis Module:												
Vol/Sat:	0.08	0.28	0.28	0.00	0.22	0.23	0.00	0.00	0.06	0.03	0.03	0.03
Crit Moves:	****					****			****	****		
Green/Cycle:	0.18	0.70	0.70	0.00	0.52	0.52	0.00	0.00	0.13	0.07	0.20	0.20
Volume/Cap:	0.44	0.40	0.40	0.00	0.43	0.44	0.00	0.00	0.44	0.44	0.15	0.15
Uniform Del:	36.5	6.3	6.3	0.0	14.8	15.0	0.0	0.0	39.9	45.0	33.0	33.0
IncremntDel:	1.0	0.1	0.1	0.0	0.2	0.4	0.0	0.0	1.4	2.7	0.2	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	37.4	6.4	6.4	0.0	15.0	15.3	0.0	0.0	41.3	47.7	33.2	33.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.4	6.4	6.4	0.0	15.0	15.3	0.0	0.0	41.3	47.7	33.2	33.2
LOS by Move:	D	A	A	A	B	B	A	A	D	D	C	C
HCM2kAvgQ:	4	7	7	0	8	7	0	0	3	2	1	1

Note: Queue reported is the number of cars per lane.

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Scenario Report

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

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Long Beach Blvd & Spring St	D	xxxxx	0.839	D	xxxxx	0.839	+ 0.000 V/C
# 2 Pacific Ave & Willow St	D	xxxxx	0.889	D	xxxxx	0.889	+ 0.000 V/C
# 4 Atlantic Ave & Willow St	D	xxxxx	0.877	D	xxxxx	0.877	+ 0.000 V/C
# 13 Atlantic Ave & Spring St	E	xxxxx	0.984	E	xxxxx	0.984	+ 0.000 V/C
# 15 Atlantic Ave & 27th St	B	16.0	0.534	B	16.0	0.534	+ 0.000 D/V

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Long Beach Blvd & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.839
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	Long Beach Blvd						Spring St					
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			Prot+Permit			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 0	1 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	63	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1108	280	140	937	173	194	627	43	175	499	160
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	1108	280	140	937	173	194	627	43	175	499	160
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2701	499	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.35	0.17	0.09	0.35	0.35	0.12	0.20	0.03	0.11	0.16	0.10
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Pacific Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.889
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	95	Level Of Service:	D

Street Name:	Pacific Ave						Willow St					
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			Prot+Permit			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	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	541	192	137	497	123	126	1584	182	191	1334	119
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:	172	541	192	137	497	123	126	1584	182	191	1334	119
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.60	0.40	1.00	2.69	0.31	1.00	2.75	0.25
Final Sat.:	1600	3200	1600	1600	2565	635	1600	4305	495	1600	4407	393
Capacity Analysis Module:												
Vol/Sat:	0.11	0.17	0.12	0.09	0.19	0.19	0.08	0.37	0.37	0.12	0.30	0.30
Crit Moves:	****				****			****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Atlantic Ave & Willow St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.877
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Street Name:	Atlantic Ave						Willow St					
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	2 0	1	1 0	1 1	0	2 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	643	163	250	748	177	183	1376	120	162	966	127
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:	120	643	163	250	748	177	183	1376	120	162	966	127
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	1.00	1.00	1.62	0.38	2.00	2.76	0.24	1.00	2.65	0.35
Final Sat.:	1600	3200	1600	1600	2588	612	2880	4415	385	1600	4242	558
Capacity Analysis Module:												
Vol/Sat:	0.08	0.20	0.10	0.16	0.29	0.29	0.06	0.31	0.31	0.10	0.23	0.23
Crit Moves:	****				****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Atlantic Ave & Spring St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.984
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	173	Level Of Service:	E

Street Name:	Atlantic Ave						Spring St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Prot+Permit			Prot+Permit			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	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	1283	230	150	1122	179	313	1029	56	109	579	110
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:	67	1283	230	150	1122	179	313	1029	56	109	579	110
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.40	0.14	0.09	0.35	0.11	0.20	0.32	0.04	0.07	0.18	0.07
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Atlantic Ave & 27th St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.534
Loss Time (sec):	10	Average Delay (sec/veh):	16.0
Optimal Cycle:	39	Level Of Service:	B

Street Name:	Atlantic Ave							27th St					
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	1 1	0	0 0	2 0	1	0 0	0 0	1	0 0	1! 0	0	
Volume Module:													
Base Vol:	40	953	10	0	1062	60	0	0	223	10	10	30	
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:	40	953	10	0	1062	60	0	0	223	10	10	30	
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:	40	953	10	0	1062	60	0	0	223	10	10	30	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	40	953	10	0	1062	60	0	0	223	10	10	30	
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:	40	953	10	0	1062	60	0	0	223	10	10	30	
Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.95	0.95	0.95	1.00	0.95	0.85	1.00	1.00	0.87	0.91	0.91	0.91	
Lanes:	1.00	1.98	0.02	0.00	2.00	1.00	0.00	0.00	1.00	0.20	0.20	0.60	
Final Sat.:	1805	3569	37	0	3610	1615	0	0	1644	346	346	1037	
Capacity Analysis Module:													
Vol/Sat:	0.02	0.27	0.27	0.00	0.29	0.04	0.00	0.00	0.14	0.03	0.03	0.03	
Crit Moves:	****				****				****	****			
Green/Cycle:	0.04	0.59	0.59	0.00	0.55	0.55	0.00	0.00	0.25	0.05	0.31	0.31	
Volume/Cap:	0.53	0.45	0.45	0.00	0.53	0.07	0.00	0.00	0.53	0.53	0.09	0.09	
Uniform Del:	47.0	11.4	11.4	0.0	14.3	10.5	0.0	0.0	32.2	46.1	24.7	24.7	
IncremntDel:	7.3	0.2	0.2	0.0	0.3	0.0	0.0	0.0	1.4	5.9	0.1	0.1	
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	
Delay/Veh:	54.3	11.5	11.5	0.0	14.6	10.5	0.0	0.0	33.6	52.0	24.7	24.7	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	54.3	11.5	11.5	0.0	14.6	10.5	0.0	0.0	33.6	52.0	24.7	24.7	
LOS by Move:	D	B	B	A	B	B	A	A	C	D	C	C	
HCM2kAvgQ:	1	8	8	0	10	1	0	0	6	2	1	1	

Note: Queue reported is the number of cars per lane.

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APPENDIX E: DETAILED PROJECT LAND USE ASSUMPTIONS

Buildout assumptions, with detail for traffic and infrastructure analysis (as of 06/03/15)

	Unit	Proposed								Existing Conditions								Proposed Conventional	Existing Conditions Conventional	Existing NOTES
		Corridor #1	Corridor #2	Corridor #3	Medical #4	Transit #5	Transit #6	Transit #7	Open Space	Corridor #1	Corridor #2	Corridor #3	Medical #4	Transit #5	Transit #6	Transit #7	Open Space			
RESIDENTIAL		**258**	**924**	**450**	**300**	**774**	**362**	**401**												
Single Family	DU	-	-	-	-	-	-	-	-	27	70	28	4	1	20	6	-	22	22	18 in Officer Black Park Area
Multifamily	DU	208	699	325	300	774	362	401	-	128	757	313	99	33	107	226	-	204	118	58 in Officer Black Park Area
Town House	DU	50	225	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
High Rise	DU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Population	People	723	2,601	1,270	826	2,132	997	1,104	-	485	2,591	1,068	322	106	397	726	-	633	438	
NON-RESIDENTIAL																				
RETAIL																				
General Retail	SF	50,000	250,000	-	70,000	400,000	112,438	230,000	-	51,252	320,970	23,835	49,771	392,552	146,667	230,459	-	33,665	33,665	There are several used car dealerships
Super Market	SF	-	50,000	-	-	25,000	-	-	-	-	-	-	-	-	-	-	-	-	-	Existing Super Markets are outside of the project boundary
Convenience Mart/ pharmacy		-	-	-	-	15,000	-	-	-		-	-	-	-	-	-	-	-	-	
Bank	SF	-	-	-	-	5,000	2,500	-		-	-	-	-	-	-	-	-	-	-	
Health Club	SF	-			-	-	20,000			-	-	-	-	-	-	-	-	-	-	
Home Improvement Superstore	SF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Free-Standing Discount	SF	-	-	-	-	-	-	-	-								-	-	-	
SERVICE	SF																			
Restaurant (non-fast food)	SF	-	10,000	-	31,600	24,000	20,000	20,000	-	2,075	5,967	5,053	-	14,218	8,365	867	-	1,992	1,992	25%
Fast Food Restaurant	SF	4,000	1,110	-	-	4,000	4,000	4,000	-	2,075	5,967	2,297	-	20,000	8,365	867	-	-	-	25%
Gas Station	SF	-	-	-	-	-	5,000	-	-	-	-	-	-	-	5,000	-	-	-	-	1 @ 5k sq ft
Auto Repair	SF	-	-	-	-	-	-	-	-	1,660	4,773	1,838	-	34,142	6,692	694	-	-	-	20%
Other		-			-	2,000	2,500	-	-	2,490	7,160		-		5,038	1,041	-	-	-	30%
OFFICE																				
Non-Medical Office	SF	-	20,705	-	-	150,000	100,000	65,000	-	5,000	68,711	10,000	-	103,546	16,448	-	-	40,406	40,406	
Hospital Beds					854	148							854	121						
Medical Office	SF	-		-	656,000	200,000	30,687	-	-	-	2,816	-	406,775	146,933	-	-	-	20,000	-	
INDUSTRIAL																				
Light	SF	-	-	-	-	-	-	-	-	-	-	-	-	4,506	-	-	-	-		
Manufacturing	SF	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-		
Warehouse/Self-Storage	SF	-	-	-	-	-	-	-	-	-	148,959	-	-	-	-	-	-	124,703	124,703	Public Storage Facility
INSTITUTIONAL																				
University	SF	-	-	35,167	-		-	-	-	-	-	35,167	-	-	-	-	-	-	-	
High School	SF	-	-	29,120	-		-	-	-	-	-	29,120	-	-	-	-	-	-	-	
K-8 School	SF	-	-	28,376	-	99,296	-	-	-	-	-	28,376	-	59,062	-	-	-	-	-	
Students by District (based on Generation Rate)	Students	93	335	163	109	280	131	145	-	28	147	61	18	6	23	41	-	85	54	
Net New Students by District (based on Generation Rate)	Students	34	26	36	71	268	83	60	-								-	31		
Enrollment by School w/in LB Unified District	Students											748	-	972	-	-	-	-	-	
School Capacity	Students	-	-	1,200	-	925	-	-	-	-	-	1,200	-	1,110	-	-	-	-	-	
OTHER																				
Religious Institution (Church)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,346	11,346	
Hotel/Motel	Rooms	-	-	-	-	175	102	-	-	-	19	-	-	75	102	-	-	-	-	Propose 1 hotel in Transit #5, (existing Hyland Inn 50, Comfort Inn 76 in #5 and existing Best Western 105 (1725 LB Blvd) in #6)
Hotel/Motel	SF	-	-	-	-	88,340	50,463	-	-	-	9,299	-	-	38,340	50,463	-	-	-	-	
Movie Theatre	Seats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Open Space	Acres	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	15	-	-	

School Information

http://www.lbusd.k12.ca.us/Main_Offices/Business_Services/docs/dev_fees/Residential%20FSRes_12440-3601_FN.pdf

student generation factors from 2015 EIR school services questionnaire

	multifamily	single family
Elementary	0.1743	0.2186
Middle	0.0802	0.1095
High	0.1079	0.162

Hancock University (two buildings)
250 students
projected 375 students
1:20 faculty/student ratio

Students: Conventional

	Proposed	Existing
Elementary	40.37	25.38
Middle	18.77	11.87
High	25.58	16.30
Total	84.71	53.55

		Enrollment	Students added by project	Capacity	Capacity remaining	Building Sq Ft
Corridor 3	Hancock					35,167
Corridor 3	PAAL	324	34	700	342	29,120
Corridor 3	New City	424	32	500	44	28,376
Transit 5	Jackie Robinson	972	198	925	-245	59,062

Multifam Unit 3,469 / Single Fam Units

Proposed Net New Students by corridor

	1	2	3	4	5	6	7	Total
Elementary	17	14	18	34	129	40	29	
Middle	7	6	8	16	59	18	13	
High	10	7	10	21	80	24	18	
Total	34	26	36	71	268	83	60	578

Proposed Students by corridor

	1	2	3	4	5	6	7	Total
Elementary	44.97	161.05	78.44	52.29	134.91	63.10	69.89	
Middle	20.69	74.10	36.09	24.06	62.07	29.03	32.16	
High	27.84	99.70	48.56	32.37	83.51	39.06	43.27	
Total	93	335	163	109	280	131	145	1,257

Existing Students by corridor

	1	2	3	4	5	6	7	Total
Elementary	28.21	147.25	60.68	18.13	5.97	23.02	40.70	
Middle	13.22	68.38	28.17	8.38	2.76	10.77	18.78	
High	18.19	93.02	38.31	11.33	3.72	14.79	25.36	
Total	60	309	127	38	12	49	85	679

Inside Project Area

34 PAAL is a high school (11-12th grades) and would likely serve all districts, but only partial as it is just the upper two grades and is a satellite campus to poly high schoo
32 New City is a K-8 (elementary and middle school) and would serve some (25%) students in Corridor 3 and Transit Node 6 and 7 (see Roosevelt oustide project area
198 Jackie Robinson is a K-8 school (elementary and middle school) and would serve Corridor 1, Medical 4, and Transit Node 5 (half of TN 5 elementary would go to LaFayette ES

Outside Project Area

65 Roosevelt ES is being rebuilt and will reopen in 2015 and will serve many of the students in Corridor 3 and Transit Node 6 and 7
78 Lafayette and Burnett ESs are next to the corridor and would serve students in Corridor 2 and Corridor 5
35 George Washington Middle School is on Pacific Avenue and would serve many of the students in Corridor 2 and 3 and Transit Node 6 and 7
136 Poly HS would serve all of the high school students except those in PAAL

Capacity estimates are based on outdated information- Per the 2015 EIR School Services Questionnaire LBUSD confirmed that the existing school facilities are adequate to serve the District.

Assumption Totals from Buildout Summary

		Proposed Corridor #1	Corridor #2	Corridor #3	Medical #4	Transit #5	Transit #6	Transit #7	TOTAL	Existing Corridor #1	Corridor #2	Corridor #3	Medical #4	Transit #5	Transit #6	Transit #7	TOTAL	Proposed Conventional	Existing Conventional
BUILDING SQ FT	Non-Res	54,000	331,815	92,663	757,600	924,296	297,125	319,000	2,776,499	64,551	565,322	135,686	456,546	774,959	196,575	233,928	2,427,567	232,112	212,112
	Retail	54,000	311,110	-	101,600	475,000	166,438	254,000	1,362,148	59,551	344,836	33,023	49,771	460,912	180,127	233,928	1,362,148	33,665	33,665
	Service	-	20,705	-	656,000	350,000	130,687	65,000	1,222,392	5,000	71,527	10,000	406,775	250,479	16,448	-	760,229	62,398	42,398
	Other	-	-	92,663	-	99,296	-	-	191,959	-	148,959	92,663	-	63,568	-	-	305,190	136,049	136,049
EMPLOYEES	Retail	108	622	-	203	950	333	508	2,724	99	574	55	82	768	300	389	2,267	67	67
	Service	-	52	-	1,640	875	327	163	3,056	10	143	20	813	500	32	-	1,518	156	106
	Other	-	-	232	-	248	-	-	480	-	297	185	-	127	-	-	609	68	68
	Medical Facilities				8,000	750			8,750				7,381	600			7,981		
	Hotel					221	126		347		23			96	126		245		
									15,357								12,620	291	241

APPENDIX F: MXD+ TRIP GENERATION WORKSHEETS

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - EXISTING CORRIDOR 1

All shaded cells are inputs		
Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	1	Zone - Vlookup
Site Name	Long Beach Midtown Specific Plan - int/sq mi 319	
Geographic		**Notes / Instructions**
Developed Area (in acres)	40.1	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	20	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage
Land Use - Surrounding Area		
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.
Employment within one mile of the MXD	18,345	Do not include employment within the MXD itself
Employment within a 30 minute Transit Trip (Door-to-door)	384,544	Include employment within the MXD itself — This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level — If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!
Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	
Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)
Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	49	DU	Log Equation	Linear Equation	Log Equation	545	44	55	99	2	9
Multi-Family	246	DU	Linear Equation	Linear Equation	Linear Equation	1,614	124	153	495	8	46
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	87.4067	ksf	Log Equation	Log Equation	Log Equation	6,222	144	547			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	4.06675	ksf	Average Rate	Average Rate	Average Rate	517	44	40			
Fast-Food Restaurant	2.07475	ksf	Average Rate	Average Rate	Average Rate	1,029	94	68			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	1.6598	ksf	Average Rate	Average Rate	Average Rate	44	4	5			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	45.406	ksf	Log Equation	Log Equation	Linear Equation	720	102	129			
Medical	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	124.703	ksf	Average Rate	Average Rate	Average Rate	312	17	32			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**11,004**	**573**	**1,030**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	11,004	8,524	23%
AM Peak Hour	573	395	31%
PM Peak Hour	1,030	644	37%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice? Daily	AM Peak Hour	PM Peak Hour
	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
Note the formulas are slightly different in this section <====	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
	720	18.64	40.89	-214.97	0	0	1.32157					1.91042			0.9	1.53	3.0	Yes	Yes	Yes
	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
	445	175.29					0					13.64					4.00	Yes	Yes	Yes
	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - EXISTING CORRIDOR 1

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	487	1305	1232	3024	77	75	16	168	65	110	125	299
Attractions	1203	5414	1363	7980	162	225	18	405	167	425	139	731
Total	1690	6719	2595	11004	239	300	34	573	232	534	264	1030
Predicted Probabilities:												
Productions												
Internal Capture	4.89%	7.55%	14.43%	15.94%	7.76%	12.10%	23.06%	18.43%	12.37%	19.28%	36.74%	38.08%
Walking External	6.56%	11.92%	7.25%	9.06%	8.66%	15.73%	7.32%	11.49%	6.56%	11.92%	7.25%	8.51%
Transit External	9.37%	3.60%	6.07%	5.63%	13.31%	7.75%	13.05%	10.97%	14.53%	7.20%	12.14%	11.26%
Attractions												
Internal Capture	4.89%	7.55%	14.43%	6.04%	7.76%	12.10%	23.06%	7.66%	12.37%	19.28%	36.74%	15.59%
Walking External	6.56%	11.92%	7.25%	10.35%	8.66%	15.73%	7.32%	12.52%	6.56%	11.92%	7.25%	9.90%
Transit External	9.37%	3.60%	6.07%	4.88%	13.31%	7.75%	13.05%	10.22%	14.53%	7.20%	12.14%	9.75%
Total												
Internal Capture	4.85%	7.56%	14.41%	8.76%	7.52%	12.01%	23.70%	10.82%	12.06%	19.46%	36.39%	22.13%
Walking External	6.56%	11.92%	7.25%	10.03%	8.66%	15.73%	7.32%	12.24%	6.56%	11.92%	7.25%	9.58%
Transit External	9.37%	3.60%	6.07%	5.07%	13.31%	7.75%	13.05%	10.42%	14.53%	7.20%	12.14%	10.10%
Number of Trips:												
Productions												
Internal Capture	41	254	187	482	9	18	4	31	14	52	48	114
Walking External	29	125	76	230	6	9	1	16	3	7	6	16
Transit External	42	38	63	143	9	4	2	15	7	4	9	21
Attractions												
Internal Capture	41	254	187	482	9	18	4	31	14	52	48	114
Walking External	76	615	85	776	13	33	1	47	10	44	7	61
Transit External	109	186	71	366	20	16	2	38	22	27	11	60
Total												
Internal Capture	82	508	374	964	18	36	8	62	28	104	96	228
Walking External	105	740	161	1007	19	42	2	63	13	51	12	77
Transit External	151	224	135	509	29	20	3	53	30	31	20	81
Internal Capture including Site Specific Internal	82	508	374	964	18	36	8	62	28	104	96	228
Net Number of IXXI Vehicle Trips	**1352**	**5247**	**1925**	**8524**	**173**	**202**	**21**	**395**	**161**	**348**	**135**	**644**

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Traditional MXD P-A calc for redistribution								
Productions								
Internal Capture	6	11	2	19	6	20	19	45
Walking External	4.475717	6.815284	0.850817	12.14182	3.331219	6.87082	5.576151	15.77819
Transit External	6.396507	2.0601	0.712278	9.168885	4.760839	2.076887	4.66818	11.50591
Attractions								
Internal Capture	6	11	2	19	6	20	19	45
Walking External	10.04534	24.63091	1.015953	35.69221	10.05886	44.42215	6.588659	61.06968
Transit External	14.35638	7.445346	0.850525	22.65225	14.37571	13.42777	5.515821	33.3193
Total walk/transit using BATS								
228ial Capture	123	762	561		144	889	655	
77ng External	139	977	163		105	740	161	
81sit External	214	547	329	1090	234	477	287	998
%s								
228ial Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
644sit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
walk/transit using ITE peak hour factors								
228	15	33	2		14	59	16	
77	21	10	2		21	18	14	
81								
average walk/transit								
228	77	505	82		60	400	89	
77	118	278	166		127	247	151	
81				142				

am	weight	10.1	89.9					
am		684	mxd	avg		weight avg	final	
	hbw	0.218288	0.072761	0.145524		0.087459	0.07762	
	hbo	0.218288	0.113412	0.16585		0.124004	0.120986	
	nhb	0.218288	0.121618	0.217234		0.216393	0.230618	
	agg	0.218288	0.131402	0.174845		0.140177	0.140177	
pm	weight	36.5	63.5					
pm		684	mxd	avg				
	hbw	0.345206	0.084888	0.215047		0.179904	0.123673	
	hbo	0.345206	0.132314	0.23876		0.210019	0.192769	
	nhb	0.345206	0.25221	0.298708		0.286154	0.367447	
	agg	0.345206	0.153302	0.249254		0.223347	0.223347	

			AM	PM	original values	
	Transit Hl		31.8%	25.13%	31.89%	25.13%
	Transit Al		23.68%	20.59%	23.68%	20.59%
	Walk HB		17.00%	7.67%	17.00%	7.67%
	Walk NHI		2.80%	4.73%	2.80%	4.73%
	Walk All		12.98%	6.85%	12.98%	6.85%
	Bike HB		15.26%	13.32%	15.26%	13.32%
	Bike NHE		2.97%	10.22%	2.97%	10.22%
	Bike All		13.20%	12.82%	13.20%	12.82%
	Walk+Bik		16.79%	8.35%	16.79%	8.35%
	Walk+Bik		2.82%	5.39%	2.82%	5.39%
	Walk+Bik		13.01%	7.57%	13.01%	7.57%

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	11,004	8,524	23%	41,784	32,737	22%	65,232
AM Peak Hour	573	395	31%	2,647	1,865	30%	3,715
PM Peak Hour	1,030	644	37%	4,148	2,700	35%	5,342

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	487	1305	0	1792	77	75	0	152	65	110	0	174
Attractions	0	236	131	367	0	14	2	16	0	20	14	34
Total	487	1541	131	2159	77	89	2	168	65	129	14	208
Predicted Probabilities:												
Productions												
Internal Capture	4.89%	7.55%	14.43%	15.94%	7.76%	12.10%	23.06%	18.43%	12.37%	19.28%	36.74%	38.08%
Walking External	6.56%	11.92%	7.25%	9.06%	8.66%	15.73%	7.32%	11.49%	6.56%	11.92%	7.25%	8.51%
Transit External	9.37%	3.60%	6.07%	5.63%	13.31%	7.75%	13.05%	10.97%	14.53%	7.20%	12.14%	11.26%
Attractions												
Internal Capture	4.89%	7.55%	14.43%	6.04%	7.76%	12.10%	23.06%	7.66%	12.37%	19.28%	36.74%	15.59%
Walking External	6.56%	11.92%	7.25%	10.35%	8.66%	15.73%	7.32%	12.52%	6.56%	11.92%	7.25%	9.90%
Transit External	9.37%	3.60%	6.07%	4.88%	13.31%	7.75%	13.05%	10.22%	14.53%	7.20%	12.14%	9.75%
Total												
Internal Capture	0.00%	7.53%	0.00%	5.37%	0.00%	11.26%	0.00%	5.94%	0.00%	18.54%	0.00%	11.53%
Walking External	6.56%	11.92%	7.25%	10.34%	8.66%	15.73%	7.32%	12.16%	6.56%	11.92%	7.25%	9.68%
Transit External	9.37%	3.60%	6.07%	5.14%	13.31%	7.75%	13.05%	10.54%	14.53%	7.20%	12.14%	10.15%
Number of Trips:												
Productions												
Internal Capture	0	58	0	58	0	5	0	5	0	12	0	12
Walking External	32	149	0	181	7	11	0	18	4	12	0	16
Transit External	46	45	0	91	10	5	0	16	9	7	0	16
Attractions												
Internal Capture	0	58	0	58	0	5	0	5	0	12	0	12
Walking External	0	21	10	31	0	1	0	2	0	1	1	2
Transit External	0	6	8	14	0	1	0	1	0	1	2	2
Total												
Internal Capture	0	116	0	116	0	10	0	10	0	24	0	24
Walking External	32	170	10	211	7	12	0	19	4	13	1	18
Transit External	46	51	8	105	10	6	0	17	9	8	2	19
Internal Capture including Site Specific Internal	0	116	0	116	0	10	0	10	0	24	0	24
NHB trips occuring outside the project			594				9				55	
Non-XX NHB trips based on MXD model			86				2				20	
NHB trips still occuring outside the project			508				7				35	
Net Number of IXXI Vehicle Trips generated by Project Residences	**410**	**1204**	**114**	**1727**	**60**	**60**	**2**	**122**	**51**	**85**	**11**	**148**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	2,159	1,727	20%	21,327	17,739	17%	72.3	60.1
AM Peak Hour	168	122	27%	1,661	1,246	25%	5.6	4.2
PM Peak Hour	208	148	29%	2,154	1,609	25%	7.3	5.5

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - EXISTING CORRIDOR 2

All shaded cells are inputs		
Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	2	Zone - Vlookup
Site Name	Long Beach Midtown Specific Plan - int/sq mi 257	
Geographic		**Notes / Instructions**
Developed Area (in acres)	84.6	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	34	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage
Land Use - Surrounding Area		
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.
Employment within one mile of the MXD	16,632	Do not include employment within the MXD itself
Employment within a 30 minute Transit Trip (Door-to-door)	348,878	Include employment within the MXD itself — This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level — If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!
Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	
Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)
Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	28	DU	Log Equation	Linear Equation	Log Equation	326	29	33	56	1	5
Multi-Family	313	DU	Linear Equation	Linear Equation	Linear Equation	2,020	157	190	630	10	58
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	328.1298	ksf	Log Equation	Log Equation	Log Equation	14,702	322	1,328			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	5.9665	ksf	Average Rate	Average Rate	Average Rate	759	64	59			
Fast-Food Restaurant	5.9665	ksf	Average Rate	Average Rate	Average Rate	2,960	271	195			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	4.7732	ksf	Average Rate	Average Rate	Average Rate	128	11	15			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	68.711	ksf	Log Equation	Log Equation	Linear Equation	987	142	155			
Medical	2.816	ksf	Average Rate	Average Rate	Average Rate	52	4	5			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	148.959	ksf	Average Rate	Average Rate	Average Rate	372	21	39			
	19										
Hotel (including restaurant, facilities, etc...)	17	Rooms	Average Rate	Average Rate	Average Rate	139	9	10			
Motel	2	Rooms	Average Rate	Average Rate	Average Rate	11	1	1			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**22,456**	**1,031**	**2,030**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	22,456	17,908	20%
AM Peak Hour	1,031	757	27%
PM Peak Hour	2,030	1,346	34%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	Valid Trip Gen Calc Choice?: Jobs Per Input Unit (if Applicable)	Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.84	40.89	-214.97	0	0	1.32157					1.91042			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <==

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - EXISTING CORRIDOR 2

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	529	1418	2810	4757	86	83	34	203	69	118	278	465
Attractions	2504	12242	2952	17699	310	482	36	828	322	949	293	1565
Total	3034	13660	5763	22456	395	565	70	1031	392	1067	572	2030
Predicted Probabilities:												
Productions												
Internal Capture	4.03%	8.07%	19.56%	24.72%	6.27%	12.59%	30.54%	29.10%	8.37%	16.79%	40.73%	47.70%
Walking External	5.67%	7.03%	5.30%	5.77%	7.48%	9.27%	5.35%	7.73%	5.67%	7.03%	5.30%	5.58%
Transit External	7.37%	3.27%	6.00%	5.51%	10.46%	7.03%	12.89%	9.72%	11.42%	6.54%	11.99%	11.25%
Attractions												
Internal Capture	4.03%	8.07%	19.56%	6.64%	6.27%	12.59%	30.54%	7.13%	8.37%	16.79%	40.73%	14.18%
Walking External	5.67%	7.03%	5.30%	6.58%	7.48%	9.27%	5.35%	8.45%	5.67%	7.03%	5.30%	6.49%
Transit External	7.37%	3.27%	6.00%	4.27%	10.46%	7.03%	12.89%	8.55%	11.42%	6.54%	11.99%	8.37%
Total												
Internal Capture	4.02%	8.07%	19.57%	10.47%	6.07%	12.74%	31.30%	11.45%	8.17%	16.87%	40.57%	21.87%
Walking External	5.67%	7.03%	5.30%	6.43%	7.48%	9.27%	5.35%	8.34%	5.67%	7.03%	5.30%	6.35%
Transit External	7.37%	3.27%	6.00%	4.49%	10.46%	7.03%	12.89%	8.74%	11.42%	6.54%	11.99%	8.81%
Number of Trips:												
Productions												
Internal Capture	61	551	564	1176	12	36	11	59	16	90	116	222
Walking External	27	61	119	207	6	4	1	11	3	2	9	14
Transit External	35	28	135	198	8	3	3	14	6	2	19	27
Attractions												
Internal Capture	61	551	564	1176	12	36	11	59	16	90	116	222
Walking External	139	821	127	1087	22	41	1	65	17	60	9	87
Transit External	180	382	143	705	31	31	3	66	35	56	21	112
Total												
Internal Capture	122	1102	1128	2352	24	72	22	118	32	180	232	444
Walking External	165	882	246	1293	28	46	3	76	20	62	18	101
Transit External	215	410	278	903	39	35	6	80	41	58	41	140
Internal Capture including Site Specific Internal	122	1102	1128	2352	24	72	22	118	32	180	232	444
Net Number of IXXI Vehicle Trips	**2532**	**11256**	**4111**	**17908**	**305**	**413**	**39**	**757**	**298**	**767**	**281**	**1346**

Traditional MXD P-A calc for redistribution

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Productions	8	23	7	38	8	43	56	107
Walking External	4.171557	3.322127	1.213229	8.706914	3.031021	1.934603	8.611114	13.57674
Transit External	5.422172	1.545538	1.371952	8.339662	3.939708	0.900027	9.737678	14.57741
Attractions	8	23	7	38	8	43	56	107
Walking External	16.88122	31.32212	1.347002	49.55034	17.37486	60.36761	9.404793	87.14726
Transit External	21.94213	14.57185	1.523225	38.03721	22.58377	28.08455	10.63519	61.30351

Total walk/transit using BATS

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	183	1653	1692		214	1929	1974	
Walking External	218	1165	248		165	882	246	
Transit External	305	971	657	1932	333	857	580	1770
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	22	36	3		21	69	24	
Walking External	28	17	3		28	32	28	
Transit External								202

average walk/transit

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	120	601	126		93	476	135	
Walking External	166	494	330		180	445	304	
Transit External								

	am	pm
weight	10.1	89.9
	684	mxd
hbw	0.219498	0.060325
hbo	0.219498	0.121008
nhb	0.219498	0.293622
agg	0.219498	0.157105

	am	pm	avg	weight avg	final
hbw	0.139912	0.076401	0.062745		
hbo	0.170253	0.130955	0.125862		
nhb	0.25656	0.286136	0.3054		
agg	0.188301	0.163406	0.163406		

	am	pm
weight	36.5	63.5
	684	mxd
hbw	0.278181	0.070379
hbo	0.278181	0.141176
nhb	0.278181	0.34256
agg	0.278181	0.183289

	avg	weight avg	final
hbw	0.17428	0.146227	0.083678
hbo	0.209678	0.191183	0.167853
nhb	0.31037	0.319061	0.407292
agg	0.230735	0.217924	0.217924

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	22,456	17,908	20%	83,988	67,882	19%	135,176
AM Peak Hour	1,031	757	27%	4,650	3,489	25%	6,948
PM Peak Hour	2,030	1,346	34%	7,971	5,509	31%	10,907

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values AM	original values PM
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	529	1418	0	1947	86	83	0	169	69	118	0	187
Attractions	0	256	142	399	0	15	3	18	0	21	15	36
Total	529	1674	142	2346	86	98	3	186	69	139	15	223
Predicted Probabilities:												
Productions												
Internal Capture	4.03%	8.07%	19.56%	24.72%	6.27%	12.59%	30.54%	29.10%	8.37%	16.79%	40.73%	47.70%
Walking External	5.67%	7.03%	5.30%	5.77%	7.48%	9.27%	5.35%	7.73%	5.67%	7.03%	5.30%	5.58%
Transit External	7.37%	3.27%	6.00%	5.51%	10.46%	7.03%	12.89%	9.72%	11.42%	6.54%	11.99%	11.25%
Attractions												
Internal Capture	4.03%	8.07%	19.56%	6.64%	6.27%	12.59%	30.54%	7.13%	8.37%	16.79%	40.73%	14.18%
Walking External	5.67%	7.03%	5.30%	6.58%	7.48%	9.27%	5.35%	8.45%	5.67%	7.03%	5.30%	6.49%
Transit External	7.37%	3.27%	6.00%	4.27%	10.46%	7.03%	12.89%	8.55%	11.42%	6.54%	11.99%	8.37%
Total												
Internal Capture	0.00%	8.12%	0.00%	5.80%	0.00%	12.20%	0.00%	6.44%	0.00%	17.29%	0.00%	10.75%
Walking External	5.67%	7.03%	5.30%	6.59%	7.48%	9.27%	5.35%	8.34%	5.67%	7.03%	5.30%	6.42%
Transit External	7.37%	3.27%	6.00%	4.43%	10.46%	7.03%	12.89%	8.80%	11.42%	6.54%	11.99%	8.65%
Number of Trips:												
Productions												
Internal Capture	0	68	0	68	0	6	0	6	0	12	0	12
Walking External	30	95	0	125	6	7	0	14	4	7	0	11
Transit External	39	44	0	83	9	5	0	14	8	7	0	15
Attractions												
Internal Capture	0	68	0	68	0	6	0	6	0	12	0	12
Walking External	0	13	8	21	0	1	0	1	0	1	1	1
Transit External	0	6	9	15	0	1	0	1	0	1	2	2
Total												
Internal Capture	0	136	0	136	0	12	0	12	0	24	0	24
Walking External	30	108	8	146	6	8	0	15	4	8	1	13
Transit External	39	50	9	98	9	6	0	15	8	8	2	17
Internal Capture including Site Specific Internal	0	136	0	136	0	12	0	12	0	24	0	24
NHB trips occuring outside the project			687				11				63	
Non-XX NHB trips based on MXD model			134				3				26	
NHB trips still occuring outside the project			552				7				38	
Net Number of IXXI Vehicle Trips generated by Project Residences	**460**	**1380**	**126**	**1966**	**70**	**72**	**2**	**145**	**58**	**99**	**12**	**169**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	2,346	1,966	16%	23,451	20,111	14%	68.8	59.0
AM Peak Hour	186	145	22%	1,843	1,462	21%	5.4	4.3
PM Peak Hour	223	169	24%	2,340	1,830	22%	6.9	5.4

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - EXISTING CORRIDOR 3

All shaded cells are inputs		
Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	3	Zone - Vlookup
Site Name	Long Beach Midtown Specific Plan - int/sq mi 333	

Geographic		**Notes / Instructions**
Developed Area (in acres)	26.9	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	14	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	11,866	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	319,980	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	4	DU	Log Equation	Linear Equation	Log Equation	54	13	6	8	0	1
Multi-Family	99	DU	Linear Equation	Linear Equation	Linear Equation	724	52	72	199	3	18
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	23.835	ksf	Log Equation	Log Equation	Log Equation	2,674	65	229			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	5.053	ksf	Average Rate	Average Rate	Average Rate	642	55	50			
Fast-Food Restaurant	2.297	ksf	Average Rate	Average Rate	Average Rate	1,140	104	75			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	1.8376	ksf	Average Rate	Average Rate	Average Rate	49	4	6			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	10	ksf	Log Equation	Log Equation	Linear Equation	228	30	90			
Medical	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	250	Students	Linear Equation	Average Rate	Average Rate	Error	43	43			
High School	324	Students	Average Rate	Average Rate	Average Rate	554	139	42			
Middle School	141	Students	Average Rate	Average Rate	Average Rate	228	76	23			
Elementary	393	Students	Average Rate	Average Rate	Average Rate	365	127	42			
	924										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**6,659**	**709**	**677**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	6,659	5,433	18%
AM Peak Hour	709	519	27%
PM Peak Hour	677	455	33%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice? Daily	AM Peak Hour	PM Peak Hour
	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
Note the formulas are slightly different in this section <====	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
	720	18.64	40.89	-214.97	0	0	1.32157					1.91042			0.9	1.53	3.0	Yes	Yes	Yes
	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
	445	175.29					0					13.64					4.00	Yes	Yes	Yes
	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - EXISTING CORRIDOR 3

MODEL APPLICATION - ALL TRIPS

	Daily HBW	Daily HBO	Daily NHB	Daily Total	AM Peak Hour HBW	AM Peak Hour HBO	AM Peak Hour NHB	AM Peak Hour Total	PM Peak Hour HBW	PM Peak Hour HBO	PM Peak Hour NHB	PM Peak Hour Total
Number of "Raw" ITE Trips Subject to Model												
Productions	176	470	815	1461	30	29	61	120	24	41	89	154
Attractions	640	3695	863	5198	123	405	62	589	102	327	94	523
Total	815	4165	1678	6659	152	434	123	709	127	368	182	677
Predicted Probabilities:												
Productions												
Internal Capture	4.63%	6.06%	10.64%	16.02%	6.81%	8.83%	15.49%	28.43%	12.96%	16.82%	29.49%	42.92%
Walking External	5.43%	9.22%	5.05%	6.27%	7.17%	12.17%	5.10%	6.52%	5.43%	9.22%	5.05%	5.59%
Transit External	9.45%	2.98%	5.93%	5.55%	13.42%	6.41%	12.75%	12.21%	14.65%	5.96%	11.86%	11.70%
Attractions												
Internal Capture	4.63%	6.06%	10.64%	4.50%	6.81%	8.83%	15.49%	5.77%	12.96%	16.82%	29.49%	12.62%
Walking External	5.43%	9.22%	5.05%	8.10%	7.17%	12.17%	5.10%	10.45%	5.43%	9.22%	5.05%	7.83%
Transit External	9.45%	2.98%	5.93%	4.25%	13.42%	6.41%	12.75%	8.48%	14.65%	5.96%	11.86%	8.61%
Total												
Internal Capture	4.66%	6.05%	10.61%	7.03%	6.57%	8.76%	16.30%	9.60%	12.64%	16.84%	29.63%	19.50%
Walking External	5.43%	9.22%	5.05%	7.73%	7.17%	12.17%	5.10%	9.93%	5.43%	9.22%	5.05%	7.47%
Transit External	9.45%	2.98%	5.93%	4.51%	13.42%	6.41%	12.75%	8.98%	14.65%	5.96%	11.86%	9.11%
Number of Trips:												
Productions												
Internal Capture	19	126	89	234	5	19	10	34	8	31	27	66
Walking External	8	32	37	77	2	1	3	6	1	1	3	5
Transit External	15	10	43	68	3	1	6	10	2	1	7	10
Attractions												
Internal Capture	19	126	89	234	5	19	10	34	8	31	27	66
Walking External	34	329	39	402	8	47	3	58	5	27	3	36
Transit External	59	106	46	211	16	25	7	47	14	18	8	39
Total												
Internal Capture	38	252	178	468	10	38	20	68	16	62	54	132
Walking External	42	361	76	479	10	48	5	64	6	28	6	41
Transit External	73	117	89	279	19	25	13	58	16	18	15	50
Internal Capture including Site Specific Internal	38	252	178	468	10	38	20	68	16	62	54	132
Net Number of IXXI Vehicle Trips	**662**	**3436**	**1335**	**5433**	**113**	**322**	**84**	**519**	**88**	**260**	**107**	**455**

Traditional MXD P-A calc for redistribution

	AM Peak Hour HBW	AM Peak Hour HBO	AM Peak Hour NHB	AM Peak Hour Total	PM Peak Hour HBW	PM Peak Hour HBO	PM Peak Hour NHB	PM Peak Hour Total
Productions	4	13	7	24	3	11	10	24
	1.342584	0.916524	2.569313	4.82842	0.881547	0.923937	3.104104	4.909588
	2.337512	0.296169	3.019136	5.652817	1.534822	0.298565	3.647556	5.480943
Attractions	4	13	7	24	3	11	10	24
	6.37839	35.5639	2.613558	44.55585	5.119531	27.30424	3.367769	35.79154
	11.10513	11.49226	3.071128	25.66852	8.913385	8.823205	3.957383	21.69397

Total walk/transit using BATS

	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
al Capture	57	378	267		67	441	312	
ng External	56	476	76		42	361	76	
sit External	104	280	213	597	114	246	187	547
%s								
al Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
sit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors

AM HBW	AM HBO	AM NHB	PM HBW	PM HBO	PM NHB
8	38	6	7	32	8
14	12	7	11	10	10

average walk/transit

32	257	41	24	196	42
59	146	110	63	128	99

78

						weight avg	final
am	weight	10.1	89.9				
am		684	mxd	avg		weight avg	final
	hbw	0.077592	0.069915	0.073753		0.070690	0.068051
	hbo	0.077592	0.090748	0.08417		0.089420	0.088329
	nhb	0.077592	0.159119	0.118355		0.150884	0.154875
	agg	0.077592	0.105427	0.091509		0.102616	0.102616
pm	weight	36.5	63.5				
pm		684	mxd	avg			
	hbw	0.321329	0.081568	0.201448		0.169080	0.129574
	hbo	0.321329	0.105873	0.213601		0.184514	0.168185
	nhb	0.321329	0.185638	0.253483		0.235165	0.294896
	agg	0.321329	0.122998	0.222163		0.195389	0.195389

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length
Daily	6,659	5,433	18%	24,634	20,202	18%	40,287
AM Peak Hour	709	519	27%	2,824	2,091	26%	4,165
PM Peak Hour	677	455	33%	2,644	1,818	31%	3,602

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values	
Transit H	31.89%	25.13%	31.89%	25.13%
Transit A	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NH	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHI	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bil	16.79%	8.35%	16.79%	8.35%
Walk+Bil	2.82%	5.39%	2.82%	5.39%
Walk+Bil	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	176	470	0	646	30	29	0	59	24	41	0	65
Attractions	0	85	47	132	0	5	1	6	0	7	5	13
Total	176	555	47	778	30	34	1	65	24	48	5	78
Predicted Probabilities:												
Productions												
Internal Capture	4.63%	6.06%	10.64%	16.02%	6.81%	8.83%	15.49%	28.43%	12.96%	16.82%	29.49%	42.92%
Walking External	5.43%	9.22%	5.05%	6.27%	7.17%	12.17%	5.10%	6.52%	5.43%	9.22%	5.05%	5.59%
Transit External	9.45%	2.98%	5.93%	5.55%	13.42%	6.41%	12.75%	12.21%	14.65%	5.96%	11.86%	11.70%
Attractions												
Internal Capture	4.63%	6.06%	10.64%	4.50%	6.81%	8.83%	15.49%	5.77%	12.96%	16.82%	29.49%	12.62%
Walking External	5.43%	9.22%	5.05%	8.10%	7.17%	12.17%	5.10%	10.45%	5.43%	9.22%	5.05%	7.83%
Transit External	9.45%	2.98%	5.93%	4.25%	13.42%	6.41%	12.75%	8.48%	14.65%	5.96%	11.86%	8.61%
Total												
Internal Capture	0.00%	6.12%	0.00%	4.37%	0.00%	11.71%	0.00%	6.17%	0.00%	16.52%	0.00%	10.27%
Walking External	5.43%	9.22%	5.05%	8.06%	7.17%	12.17%	5.10%	9.62%	5.43%	9.22%	5.05%	7.59%
Transit External	9.45%	2.98%	5.93%	4.69%	13.42%	6.41%	12.75%	9.93%	14.65%	5.96%	11.86%	9.41%
Number of Trips:												
Productions												
Internal Capture	0	17	0	17	0	2	0	2	0	4	0	4
Walking External	10	42	0	51	2	3	0	5	1	3	0	5
Transit External	17	14	0	30	4	2	0	6	4	2	0	6
Attractions												
Internal Capture	0	17	0	17	0	2	0	2	0	4	0	4
Walking External	0	6	2	9	0	0	0	0	0	0	0	1
Transit External	0	2	3	5	0	0	0	0	0	0	1	1
Total												
Internal Capture	0	34	0	34	0	4	0	4	0	8	0	8
Walking External	10	48	2	60	2	4	0	6	1	4	0	5
Transit External	17	16	3	35	4	2	0	6	4	2	1	7
Internal Capture including Site Specific Internal	0	34	0	34	0	4	0	4	0	8	0	8
NHB trips occuring outside the project			207				3				19	
Non-XX NHB trips based on MXD model			22				1				6	
NHB trips still occuring outside the project			185				3				14	
Net Number of IXXI Vehicle Trips generated by Project Residences	**149**	**458**	**42**	**649**	**24**	**25**	**1**	**49**	**19**	**34**	**4**	**58**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	778	649	17%	7,639	6,561	14%	74.2	63.7
AM Peak Hour	65	49	25%	637	493	23%	6.2	4.8
PM Peak Hour	78	58	26%	796	618	22%	7.7	6.0

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - EXISTING CORRIDOR 4

All shaded cells are inputs		
Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	4	Zone - Vlookup
Site Name	Long Beach Midtown Specific Plan - int/sq mi 162	
Geographic		**Notes / Instructions**
Developed Area (in acres)	70.9	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	18	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage
Land Use - Surrounding Area		
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.
Employment within one mile of the MXD	20,598	Do not include employment within the MXD itself
Employment within a 30 minute Transit Trip (Door-to-door)	381,206	Include employment within the MXD itself — This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level — If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!
Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	
Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)
Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	1	DU	Log Equation	Linear Equation	Log Equation	15	10	2	2	0	0
Multi-Family	33	DU	Linear Equation	Linear Equation	Linear Equation	324	20	36	66	1	6
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	49.771	ksf	Log Equation	Log Equation	Log Equation	4,315	102	375			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Fast-Food Restaurant	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	0	ksf	Log Equation	Log Equation	Linear Equation	0	0	0			
Medical	406.775	ksf	Average Rate	Average Rate	Average Rate	7,583	538	777			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**12,237**	**670**	**1,190**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	12,237	10,568	14%
AM Peak Hour	670	562	16%
PM Peak Hour	1,190	956	20%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice? Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.84	40.89	-214.97	0	0	1.32157					1.91042			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <==

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - EXISTING CORRIDOR 4

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	76	205	1654	1935	14	14	21	48	12	20	166	198
Attractions	2958	5670	1674	10302	383	218	21	622	376	448	169	992
Total	3034	5874	3328	12237	397	231	41	670	387	468	335	1190
Predicted Probabilities:												
Productions												
Internal Capture	1.70%	2.64%	14.53%	17.88%	2.61%	4.04%	22.11%	31.26%	2.59%	4.01%	21.96%	25.79%
Walking External	3.75%	4.77%	3.77%	3.85%	4.95%	6.30%	3.81%	4.76%	3.75%	4.77%	3.77%	3.84%
Transit External	4.62%	3.05%	6.06%	5.78%	6.56%	6.56%	13.03%	9.61%	7.16%	6.11%	12.13%	11.46%
Attractions												
Internal Capture	1.70%	2.64%	14.53%	3.36%	2.61%	4.04%	22.11%	2.41%	2.59%	4.01%	21.96%	5.14%
Walking External	3.75%	4.77%	3.77%	4.33%	4.95%	6.30%	3.81%	5.39%	3.75%	4.77%	3.77%	4.23%
Transit External	4.62%	3.05%	6.06%	3.95%	6.56%	6.56%	13.03%	6.73%	7.16%	6.11%	12.13%	7.37%
Total												
Internal Capture	1.71%	2.66%	14.54%	5.65%	2.52%	4.32%	24.14%	4.48%	2.58%	3.85%	22.08%	8.57%
Walking External	3.75%	4.77%	3.77%	4.26%	4.95%	6.30%	3.81%	5.36%	3.75%	4.77%	3.77%	4.18%
Transit External	4.62%	3.05%	6.06%	4.20%	6.56%	6.56%	13.03%	6.88%	7.16%	6.11%	12.13%	7.92%
Number of Trips:												
Productions												
Internal Capture	26	78	242	346	5	5	5	15	5	9	37	51
Walking External	2	6	53	61	0	1	1	2	0	1	5	6
Transit External	2	4	86	92	1	1	2	3	0	1	16	17
Attractions												
Internal Capture	26	78	242	346	5	5	5	15	5	9	37	51
Walking External	110	267	54	431	19	13	1	33	14	21	5	40
Transit External	135	171	87	393	25	14	2	41	27	27	16	69
Total												
Internal Capture	52	156	484	692	10	10	10	30	10	18	74	102
Walking External	112	273	107	492	19	14	1	34	14	21	10	45
Transit External	138	175	172	485	25	15	4	44	27	27	32	86
Internal Capture including Site Specific Internal	52	156	484	692	10	10	10	30	10	18	74	102
Net Number of IXXI Vehicle Trips	**2733**	**5271**	**2565**	**10568**	**343**	**193**	**26**	**562**	**336**	**401**	**220**	**956**

Traditional MXD P-A calc for redistribution

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	3	3	3	9	3	6	24	33
Walking External	0.334618	0.408079	0.584882	1.32758	0.24961	0.511823	4.87798	5.639412
Transit External	0.412491	0.26116	0.940189	1.61384	0.307699	0.327553	7.841276	8.476528
Internal Capture	3	3	3	9	3	6	24	33
Walking External	14.17718	10.15929	0.600368	24.93684	13.89123	20.93784	4.972745	39.80182
Transit External	17.47651	6.501681	0.965083	24.94327	17.124	13.39968	7.993609	38.51729

Total walk/transit using BATS							
Internal Capture	78	234	726		91	273	847
Walking External	148	360	108		112	273	107
Transit External	196	424	418	1038	214	371	366	950
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors							
Internal Capture	15	11	1	14	22	11	
Walking External	18	7	2	18	14	17	
							96

average walk/transit						
Internal Capture	81	185	55	63	147	59
Walking External	107	215	210	116	192	192

	AM	PM	original values	
Transit Hl	31.89%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
am	weight	10.1	89.9					
am		684	mxd	avg				
	hbw	0.096254	0.025706	0.06098				
	hbo	0.096254	0.039834	0.068044				
	nhb	0.096254	0.21812	0.157167				
	agg	0.096254	0.084824	0.090539				
pm	weight	36.5	63.5					
pm		684	mxd	avg				
	hbw	0.061768	0.029991	0.04588				
	hbo	0.061768	0.046473	0.054121				
	nhb	0.061768	0.254474	0.158121				
	agg	0.061768	0.098961	0.080365				

	weight avg	final
	0.032832	0.026056
	0.045532	0.040376
	0.205812	0.221089
	0.085979	0.085979
	0.041590	0.025877
	0.052056	0.040098
	0.184136	0.219565
	0.085386	0.085386

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	12,237	10,568	14%	50,162	43,823	13%	87,473
AM Peak Hour	670	562	16%	3,467	2,943	15%	5,879
PM Peak Hour	1,190	956	20%	5,171	4,256	18%	8,486

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	76	205	0	281	14	14	0	27	12	20	0	31
Attractions	0	37	21	58	0	2	0	3	0	4	3	6
Total	76	242	21	339	14	16	0	30	12	23	3	37
Predicted Probabilities:												
Productions												
Internal Capture	1.70%	2.64%	14.53%	17.88%	2.61%	4.04%	22.11%	31.26%	2.59%	4.01%	21.96%	25.79%
Walking External	3.75%	4.77%	3.77%	3.85%	4.95%	6.30%	3.81%	4.76%	3.75%	4.77%	3.77%	3.84%
Transit External	4.62%	3.05%	6.06%	5.78%	6.56%	6.56%	13.03%	9.61%	7.16%	6.11%	12.13%	11.46%
Attractions												
Internal Capture	1.70%	2.64%	14.53%	3.36%	2.61%	4.04%	22.11%	2.41%	2.59%	4.01%	21.96%	5.14%
Walking External	3.75%	4.77%	3.77%	4.33%	4.95%	6.30%	3.81%	5.39%	3.75%	4.77%	3.77%	4.23%
Transit External	4.62%	3.05%	6.06%	3.95%	6.56%	6.56%	13.03%	6.73%	7.16%	6.11%	12.13%	7.37%
Total												
Internal Capture	0.00%	2.48%	0.00%	1.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Walking External	3.75%	4.77%	3.77%	4.47%	4.95%	6.30%	3.81%	5.64%	3.75%	4.77%	3.77%	4.39%
Transit External	4.62%	3.05%	6.06%	3.60%	6.56%	6.56%	13.03%	6.65%	7.16%	6.11%	12.13%	6.84%
Number of Trips:												
Productions												
Internal Capture	0	3	0	3	0	0	0	0	0	0	0	0
Walking External	3	10	0	12	1	1	0	2	0	1	0	1
Transit External	4	6	0	10	1	1	0	2	1	1	0	2
Attractions												
Internal Capture	0	3	0	3	0	0	0	0	0	0	0	0
Walking External	0	2	1	2	0	0	0	0	0	0	0	0
Transit External	0	1	1	2	0	0	0	0	0	0	0	1
Total												
Internal Capture	0	6	0	6	0	0	0	0	0	0	0	0
Walking External	3	11	1	15	1	1	0	2	0	1	0	2
Transit External	4	7	1	12	1	1	0	2	1	1	0	3
Internal Capture including Site Specific Internal	0	6	0	6	0	0	0	0	0	0	0	0
NHB trips occuring outside the project			68				1				6	
Non-XX NHB trips based on MXD model			10				0				1	
NHB trips still occuring outside the project			59				1				5	
Net Number of IXXI Vehicle Trips generated by Project Residences	**70**	**217**	**19**	**306**	**12**	**14**	**0**	**27**	**10**	**21**	**2**	**33**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	339	306	10%	3,179	2,891	9%	93.5	85.0
AM Peak Hour	30	27	12%	295	260	12%	8.7	7.6
PM Peak Hour	37	33	11%	364	323	11%	10.7	9.5

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - EXISTING CORRIDOR 5

All shaded cells are inputs		
Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	5	Zone - Vlookup
Site Name	Long Beach M	Midtown Specific Plan - int/sq mi 185

Geographic		**Notes / Instructions**
Developed Area (in acres)	79.4	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	23	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	18,599	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	376,620	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	20	DU	Log Equation	Linear Equation	Log Equation	239	24	25	40	1	4
Multi-Family	107	DU	Linear Equation	Linear Equation	Linear Equation	772	56	77	215	3	20
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	392.552	ksf	Log Equation	Log Equation	Log Equation	16,518	359	1,498			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	14.218	ksf	Average Rate	Average Rate	Average Rate	1,808	154	140			
Fast-Food Restaurant	20	ksf	Average Rate	Average Rate	Average Rate	9,922	908	653			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	34.142	ksf	Average Rate	Average Rate	Average Rate	915	77	106			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	103.546	ksf	Log Equation	Log Equation	Linear Equation	1,348	197	194			
Medical	146.933	ksf	Average Rate	Average Rate	Average Rate	2,739	194	281			
Industrial											
Light Industrial	4.506	ksf	Average Rate	Average Rate	Average Rate	31	4	4			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	75										
Hotel (including restaurant, facilities, etc...)	68	Rooms	Average Rate	Average Rate	Average Rate	556	36	41			
Motel	8	Rooms	Average Rate	Average Rate	Average Rate	45	4	4			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	324	Students	Average Rate	Average Rate	Average Rate	525	175	52			
Elementary	648	Students	Average Rate	Average Rate	Average Rate	836	292	97			
	972										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**36,255**	**2,479**	**3,171**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	36,255	30,248	17%
AM Peak Hour	2,479	1,963	21%
PM Peak Hour	3,171	2,258	29%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice? Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.64	40.89	-214.97	0	0	1.32157					1.91042			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <====

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - EXISTING CORRIDOR 5

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	228	611	4914	5753	37	36	138	211	31	53	467	552
Attractions	4779	20747	4976	30501	762	1367	139	2269	579	1566	474	2619
Total	5007	21358	9890	36255	799	1403	277	2479	610	1620	941	3171
Predicted Probabilities:												
Productions												
Internal Capture	2.50%	4.32%	17.24%	23.92%	3.86%	6.73%	26.82%	41.65%	6.36%	11.10%	44.22%	50.78%
Walking External	4.50%	6.01%	4.47%	4.52%	5.93%	7.93%	4.52%	4.77%	4.50%	6.01%	4.47%	4.47%
Transit External	5.31%	3.36%	6.05%	5.93%	7.53%	7.23%	13.01%	12.05%	8.22%	6.73%	12.11%	11.93%
Attractions												
Internal Capture	2.50%	4.32%	17.24%	4.51%	3.86%	6.73%	26.82%	3.87%	6.36%	11.10%	44.22%	10.70%
Walking External	4.50%	6.01%	4.47%	5.54%	5.93%	7.93%	4.52%	7.08%	4.50%	6.01%	4.47%	5.47%
Transit External	5.31%	3.36%	6.05%	4.06%	7.53%	7.23%	13.01%	7.61%	8.22%	6.73%	12.11%	7.70%
Total												
Internal Capture	2.48%	4.33%	17.23%	7.59%	3.75%	5.09%	26.68%	7.07%	6.23%	6.58%	44.20%	17.68%
Walking External	4.50%	6.01%	4.47%	5.41%	5.93%	7.93%	4.52%	6.96%	4.50%	6.01%	4.47%	5.37%
Transit External	5.31%	3.36%	6.05%	4.30%	7.53%	7.23%	13.01%	7.84%	8.22%	6.73%	12.11%	8.14%
Number of Trips:												
Productions												
Internal Capture	62	462	852	1376	15	36	37	88	19	53	208	280
Walking External	7	9	182	198	1	0	5	6	1	0	12	12
Transit External	9	5	246	260	2	0	13	15	1	0	31	32
Attractions												
Internal Capture	62	462	852	1376	15	36	37	88	19	53	208	280
Walking External	212	1218	184	1615	44	106	5	155	25	91	12	128
Transit External	250	682	250	1182	56	96	13	166	46	102	32	180
Total												
Internal Capture	124	924	1704	2752	30	71	74	175	38	107	416	561
Walking External	220	1227	366	1813	46	106	9	160	26	91	23	140
Transit External	259	687	496	1442	58	96	26	181	47	102	64	212
Internal Capture including Site Specific Internal	124	924	1704	2752	30	71	74	175	38	107	416	561
Net Number of IXXI Vehicle Trips	**4404**	**18519**	**7324**	**30248**	**665**	**1130**	**168**	**1963**	**500**	**1320**	**438**	**2258**

Traditional MXD P-A calc for redistribution

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	10	30	24	64	8	35	81	124
Walking External	0.9744	0	4.523342	5.497741	0.561342	0	11.58999	12.15133
Transit External	1.149808	0	6.123473	7.273281	0.662393	0	15.68995	16.35234
Internal Capture	10	30	24	64	8	35	81	124
Walking External	33.59646	79.96211	4.571694	118.1303	25.17036	90.87239	11.89343	127.9362
Transit External	39.64437	44.79368	6.18893	90.62698	29.70144	50.90547	16.10073	96.70765

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Total walk/transit using BATS								
Internal Capture	186	1386	2556		217	1617	2982	
Walking External	290	1620	370		220	1227	366	
Transit External	368	1580	1139	3086	402	1409	1016	2826
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
walk/transit using ITE peak hour factors								
Internal Capture	35	81	10		27	93	35	
Walking External	41	45	14		32	52	47	
Transit External								286
average walk/transit								
Internal Capture	162	850	190		123	660	200	
Walking External	205	812	576		217	731	531	

am	weight	10.1	89.9			
am		684	mxd	avg	weight avg	final
	hbw	0.156477	0.037148	0.096813	0.049200	0.038552
	hbo	0.156477	0.064894	0.110685	0.074143	0.067347
	nhb	0.156477	0.258452	0.207465	0.248153	0.268222
	agg	0.156477	0.113861	0.135169	0.118165	0.118165
pm	weight	36.5	63.5			
pm		684	mxd	avg		
	hbw	0.302629	0.043339	0.172984	0.137980	0.063559
	hbo	0.302629	0.075709	0.189169	0.158535	0.11103
	nhb	0.302629	0.301528	0.302079	0.301930	0.442202
	agg	0.302629	0.132838	0.217734	0.194812	0.194812

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	36,255	30,248	17%	135,991	114,788	16%	228,889
AM Peak Hour	2,479	1,963	21%	10,713	8,625	19%	17,206
PM Peak Hour	3,171	2,258	29%	12,448	9,190	26%	18,240

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values AM	original values PM
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	228	611	0	839	37	36	0	72	31	53	0	85
Attractions	0	110	61	172	0	6	1	8	0	10	7	16
Total	228	721	61	1011	37	42	1	80	31	63	7	101
Predicted Probabilities:												
Productions												
Internal Capture	2.50%	4.32%	17.24%	23.92%	3.86%	6.73%	26.82%	41.65%	6.36%	11.10%	44.22%	50.78%
Walking External	4.50%	6.01%	4.47%	4.52%	5.93%	7.93%	4.52%	4.77%	4.50%	6.01%	4.47%	4.47%
Transit External	5.31%	3.36%	6.05%	5.93%	7.53%	7.23%	13.01%	12.05%	8.22%	6.73%	12.11%	11.93%
Attractions												
Internal Capture	2.50%	4.32%	17.24%	4.51%	3.86%	6.73%	26.82%	3.87%	6.36%	11.10%	44.22%	10.70%
Walking External	4.50%	6.01%	4.47%	5.54%	5.93%	7.93%	4.52%	7.08%	4.50%	6.01%	4.47%	5.47%
Transit External	5.31%	3.36%	6.05%	4.06%	7.53%	7.23%	13.01%	7.61%	8.22%	6.73%	12.11%	7.70%
Total												
Internal Capture	0.00%	4.44%	0.00%	3.17%	0.00%	4.75%	0.00%	2.50%	0.00%	9.54%	0.00%	5.93%
Walking External	4.50%	6.01%	4.47%	5.56%	5.93%	7.93%	4.52%	6.94%	4.50%	6.01%	4.47%	5.40%
Transit External	5.31%	3.36%	6.05%	3.99%	7.53%	7.23%	13.01%	7.45%	8.22%	6.73%	12.11%	7.61%
Number of Trips:												
Productions												
Internal Capture	0	16	0	16	0	1	0	1	0	3	0	3
Walking External	10	36	0	46	2	3	0	5	1	3	0	4
Transit External	12	20	0	32	3	3	0	5	3	3	0	6
Attractions												
Internal Capture	0	16	0	16	0	1	0	1	0	3	0	3
Walking External	0	6	3	8	0	0	0	0	0	0	0	1
Transit External	0	3	4	7	0	0	0	1	0	0	1	1
Total												
Internal Capture	0	32	0	32	0	2	0	2	0	6	0	6
Walking External	10	41	3	54	2	3	0	5	1	3	0	5
Transit External	12	23	4	39	3	3	0	6	3	4	1	7
Internal Capture including Site Specific Internal	0	32	0	32	0	2	0	2	0	6	0	6
NHB trips occuring outside the project			256				4				24	
Non-XX NHB trips based on MXD model			44				1				10	
NHB trips still occuring outside the project			212				3				13	
Net Number of IXXI Vehicle Trips generated by Project Residences	**206**	**625**	**55**	**885**	**32**	**34**	**1**	**67**	**27**	**50**	**6**	**83**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	1,011	885	12%	9,834	8,731	11%	77.4	68.7
AM Peak Hour	80	67	17%	786	664	15%	6.2	5.2
PM Peak Hour	101	83	18%	1,026	847	17%	8.1	6.7

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - EXISTING CORRIDOR 6

All shaded cells are inputs		
Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	6	Zone - Vlookup
Site Name	Long Beach Midtown Specific Plan - int/sq mi 197	
Geographic		**Notes / Instructions**
Developed Area (in acres)	45.4	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	14	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage
Land Use - Surrounding Area		
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.
Employment within one mile of the MXD	10,454	Do not include employment within the MXD itself
Employment within a 30 minute Transit Trip (Door-to-door)	330,002	Include employment within the MXD itself — This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level — If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!
Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	
Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)
Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	6	DU	Log Equation	Linear Equation	Log Equation	79	14	8	12	0	1
Multi-Family	226	DU	Linear Equation	Linear Equation	Linear Equation	1,493	114	142	455	7	42
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	151.705	ksf	Log Equation	Log Equation	Log Equation	8,904	201	792			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	8.365	ksf	Average Rate	Average Rate	Average Rate	1,064	90	82			
Fast-Food Restaurant	8.365	ksf	Average Rate	Average Rate	Average Rate	4,150	380	273			
Gas Station	5	ksf	Average Rate	Average Rate	Average Rate	5,872	411	487			
Auto Repair	6.692	ksf	Average Rate	Average Rate	Average Rate	179	15	21			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	16.448	ksf	Log Equation	Log Equation	Linear Equation	333	45	97			
Medical	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	102										
Hotel (including restaurant, facilities, etc...)	92	Rooms	Average Rate	Average Rate	Average Rate	752	49	55			
Motel	10	Rooms	Average Rate	Average Rate	Average Rate	56	5	5			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**22,882**	**1,324**	**1,963**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	22,882	18,895	17%
AM Peak Hour	1,324	996	25%
PM Peak Hour	1,963	1,372	30%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice?: Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.84	40.89	-214.97	0	0	1.32157					1.91042			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <====

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - EXISTING CORRIDOR 6

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	355	950	2970	4275	59	57	50	166	47	79	280	406
Attractions	2599	12942	3065	18607	383	723	52	1158	311	956	290	1557
Total	2954	13893	6036	22882	442	780	102	1324	358	1035	570	1963
Predicted Probabilities:												
Productions												
Internal Capture	4.81%	6.62%	11.15%	20.30%	7.53%	10.37%	17.49%	39.71%	11.99%	16.52%	27.86%	44.15%
Walking External	5.30%	7.91%	3.47%	4.26%	7.00%	10.44%	3.51%	6.17%	5.30%	7.91%	3.47%	3.68%
Transit External	5.52%	3.20%	5.95%	5.52%	7.84%	6.88%	12.80%	9.70%	8.56%	6.40%	11.91%	11.53%
Attractions												
Internal Capture	4.81%	6.62%	11.15%	4.66%	7.53%	10.37%	17.49%	5.70%	11.99%	16.52%	27.86%	11.51%
Walking External	5.30%	7.91%	3.47%	6.86%	7.00%	10.44%	3.51%	9.01%	5.30%	7.91%	3.47%	6.68%
Transit External	5.52%	3.20%	5.95%	3.95%	7.84%	6.88%	12.80%	7.43%	8.56%	6.40%	11.91%	7.70%
Total												
Internal Capture	4.81%	6.62%	11.17%	7.59%	7.69%	10.25%	17.73%	9.97%	11.75%	15.29%	27.73%	18.25%
Walking External	5.30%	7.91%	3.47%	6.44%	7.00%	10.44%	3.51%	8.78%	5.30%	7.91%	3.47%	6.26%
Transit External	5.52%	3.20%	5.95%	4.21%	7.84%	6.88%	12.80%	7.62%	8.56%	6.40%	11.91%	8.24%
Number of Trips:												
Productions												
Internal Capture	71	460	337	868	17	40	9	66	21	79	79	179
Walking External	15	39	91	145	3	2	1	6	1	0	7	8
Transit External	16	16	157	188	3	1	5	10	2	0	24	26
Attractions												
Internal Capture	71	460	337	868	17	40	9	66	21	79	79	179
Walking External	134	987	95	1216	26	71	1	98	15	69	7	92
Transit External	140	399	162	701	29	47	5	81	25	56	25	106
Total												
Internal Capture	142	920	674	1736	34	80	18	132	42	158	158	358
Walking External	149	1026	186	1361	29	73	3	105	17	69	14	100
Transit External	155	415	319	890	32	48	11	91	27	56	49	132
Internal Capture including Site Specific Internal	142	920	674	1736	34	80	18	132	42	158	158	358
Net Number of IXXI Vehicle Trips	**2508**	**11531**	**4856**	**18895**	**348**	**579**	**70**	**996**	**272**	**752**	**348**	**1372**

Traditional MXD P-A calc for redistribution

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	11	26	6	43	9	34	32	75
Walking External	2.222629	1.373532	1.419668	5.015828	1.365738	0	6.97244	8.338178
Transit External	2.316085	0.555545	2.434769	5.306379	1.423152	0	11.95792	13.38107
Internal Capture	11	26	6	43	9	34	32	75
Walking External	19.4122	54.01428	1.479994	74.90648	15.35832	69.39398	7.322362	92.07466
Transit External	20.22827	21.84686	2.53823	44.61336	16.00396	28.0674	12.55805	56.62941

Total walk/transit using BATS

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	213	1380	1011		249	1610	1180	
Walking External	197	1355	188		149	1026	186	
Transit External	221	951	732	1904	241	850	653	1744
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	22	58	3		18	76	18	
Walking External	23	23	5		19	31	30	
Transit External								192

average walk/transit

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	110	706	96		84	551	102	
Walking External	122	487	369		130	440	342	
Transit External								

am	weight	10.1	89.9			
am		684	mxd	avg	weight avg	final
	hbw	0.1634	0.072109	0.117755	0.081330	0.075283
	hbo	0.1634	0.099333	0.131367	0.105804	0.103706
	nhb	0.1634	0.167507	0.165454	0.167093	0.174881
	agg	0.1634	0.113801	0.1386	0.118811	0.118811
pm	weight	36.5	63.5			
pm		684	mxd	avg		
	hbw	0.287496	0.084127	0.185812	0.158357	0.119913
	hbo	0.287496	0.115889	0.201692	0.178525	0.165185
	nhb	0.287496	0.195425	0.241461	0.229031	0.278554
	agg	0.287496	0.132768	0.210132	0.189244	0.189244

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	22,882	18,895	17%	85,159	70,961	17%	141,487
AM Peak Hour	1,324	996	25%	5,766	4,419	23%	8,806
PM Peak Hour	1,963	1,372	30%	7,640	5,495	28%	10,900

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

	AM	PM
	0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values AM	original values PM
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	355	950	0	1305	59	57	0	116	47	79	0	126
Attractions	0	172	95	267	0	10	2	12	0	14	10	24
Total	355	1122	95	1572	59	68	2	128	47	93	10	150
Predicted Probabilities:												
Productions												
Internal Capture	4.81%	6.62%	11.15%	20.30%	7.53%	10.37%	17.49%	39.71%	11.99%	16.52%	27.86%	44.15%
Walking External	5.30%	7.91%	3.47%	4.26%	7.00%	10.44%	3.51%	6.17%	5.30%	7.91%	3.47%	3.68%
Transit External	5.52%	3.20%	5.95%	5.52%	7.84%	6.88%	12.80%	9.70%	8.56%	6.40%	11.91%	11.53%
Attractions												
Internal Capture	4.81%	6.62%	11.15%	4.66%	7.53%	10.37%	17.49%	5.70%	11.99%	16.52%	27.86%	11.51%
Walking External	5.30%	7.91%	3.47%	6.86%	7.00%	10.44%	3.51%	9.01%	5.30%	7.91%	3.47%	6.68%
Transit External	5.52%	3.20%	5.95%	3.95%	7.84%	6.88%	12.80%	7.43%	8.56%	6.40%	11.91%	7.70%
Total												
Internal Capture	0.00%	6.60%	0.00%	4.71%	0.00%	11.81%	0.00%	6.23%	0.00%	17.12%	0.00%	10.65%
Walking External	5.30%	7.91%	3.47%	7.01%	7.00%	10.44%	3.51%	8.66%	5.30%	7.91%	3.47%	6.67%
Transit External	5.52%	3.20%	5.95%	3.93%	7.84%	6.88%	12.80%	7.44%	8.56%	6.40%	11.91%	7.57%
Number of Trips:												
Productions												
Internal Capture	0	37	0	37	0	4	0	4	0	8	0	8
Walking External	19	72	0	91	4	6	0	10	2	6	0	8
Transit External	20	29	0	49	5	4	0	8	4	5	0	9
Attractions												
Internal Capture	0	37	0	37	0	4	0	4	0	8	0	8
Walking External	0	11	3	14	0	1	0	1	0	0	0	1
Transit External	0	4	6	10	0	0	0	1	0	0	1	2
Total												
Internal Capture	0	74	0	74	0	8	0	8	0	16	0	16
Walking External	19	83	3	105	4	6	0	10	2	6	0	9
Transit External	20	34	6	59	5	4	0	9	4	5	1	10
Internal Capture including Site Specific Internal	0	74	0	74	0	8	0	8	0	16	0	16
NHB trips occuring outside the project			467				7				43	
Non-XX NHB trips based on MXD model			52				1				12	
NHB trips still occuring outside the project			415				6				31	
Net Number of IXXI Vehicle Trips generated by Project Residences	**316**	**931**	**86**	**1334**	**50**	**49**	**1**	**101**	**40**	**66**	**9**	**115**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	1,572	1,334	15%	15,762	13,802	12%	67.9	59.5
AM Peak Hour	128	101	21%	1,268	1,031	19%	5.5	4.4
PM Peak Hour	150	115	23%	1,578	1,271	19%	6.8	5.5

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - EXISTING CORRIDOR 7

All shaded cells are inputs		
Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	7	Zone - Vlookup
Site Name	Long Beach Midtown Specific Plan - int/sq mi 721	
Geographic		**Notes / Instructions**
Developed Area (in acres)	21.3	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	24	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage
Land Use - Surrounding Area		
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.
Employment within one mile of the MXD	13,734	Do not include employment within the MXD itself
Employment within a 30 minute Transit Trip (Door-to-door)	311,264	Include employment within the MXD itself — This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level — If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!
Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	
Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)
Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	0	DU	Log Equation	Linear Equation	Log Equation	0	0	0	0	0	0
Multi-Family	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	231.4997	ksf	Log Equation	Log Equation	Log Equation	11,719	260	1,051			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	0.86725	ksf	Average Rate	Average Rate	Average Rate	110	9	9			
Fast-Food Restaurant	0.86725	ksf	Average Rate	Average Rate	Average Rate	430	39	28			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0.6938	ksf	Average Rate	Average Rate	Average Rate	19	2	2			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	0	ksf	Log Equation	Log Equation	Linear Equation	0	0	0			
Medical	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**12,278**	**310**	**1,090**

	External Vehicle Trips: Raw	Net	Reduction %
Daily	12,278	10,304	16%
AM Peak Hour	310	243	22%
PM Peak Hour	1,090	837	23%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multipler	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice? Daily	AM Peak Hour	PM Peak Hour
Number of Dwelling Units																				
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)																				
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Office																				
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.67	40.89	-214.97	0	0	1.32152					1.91042			0.9	1.53	3.0	Yes	Yes	Yes
Industrial																				
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
School																				
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <<===

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - EXISTING CORRIDOR 7

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	0	0	1730	1730	0	0	13	13	0	0	172	172
Attractions	1224	7595	1730	10548	87	196	13	297	152	595	172	919
Total	1224	7595	3460	12278	87	196	27	310	152	595	344	1090
Predicted Probabilities:												
Productions												
Internal Capture	0	[redacted]	16.80%	16.82%	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Walking External	0	[redacted]	10.14%	10.14%	[redacted]	[redacted]	[redacted]	10.24%	[redacted]	[redacted]	[redacted]	10.14%
Transit External	[redacted]	[redacted]	5.91%	5.91%	[redacted]	[redacted]	[redacted]	12.71%	[redacted]	[redacted]	[redacted]	11.82%
Attractions												
Internal Capture	1.18%	1.81%	16.80%	2.76%	[redacted]	[redacted]	[redacted]	1.35%	[redacted]	[redacted]	[redacted]	4.03%
Walking External	2.62%	5.49%	10.14%	5.80%	[redacted]	[redacted]	[redacted]	6.22%	[redacted]	[redacted]	[redacted]	5.71%
Transit External	19.77%	3.15%	5.91%	5.52%	[redacted]	[redacted]	[redacted]	13.30%	[redacted]	[redacted]	[redacted]	11.34%
Total												
Internal Capture	0.00%	0.00%	16.82%	4.74%	0.00%	0.00%	29.64%	2.58%	0.00%	0.00%	21.53%	6.79%
Walking External	2.62%	5.49%	10.14%	6.33%	3.46%	7.25%	10.24%	6.35%	2.62%	5.49%	10.14%	6.30%
Transit External	19.77%	3.15%	5.91%	5.57%	28.08%	6.78%	12.71%	13.28%	30.65%	6.31%	11.82%	11.40%
Number of Trips:												
Productions												
Internal Capture	0	0	291	291	0	0	4	4	0	0	37	37
Walking External	0	0	146	146	0	0	1	1	0	0	14	14
Transit External	0	0	85	85	0	0	1	1	0	0	16	16
Attractions												
Internal Capture	0	0	291	291	0	0	4	4	0	0	37	37
Walking External	32	417	146	595	3	14	1	18	4	33	14	50
Transit External	242	239	85	566	24	13	1	39	47	38	16	100
Total												
Internal Capture	0	0	582	582	0	0	8	8	0	0	74	74
Walking External	32	417	292	741	3	14	2	19	4	33	27	64
Transit External	242	239	170	652	24	13	2	40	47	38	32	116
Internal Capture including Site Specific Internal	0	0	582	582	0	0	8	8	0	0	74	74
Net Number of IXXI Vehicle Trips	**950**	**6938**	**2416**	**10304**	**60**	**169**	**15**	**243**	**101**	**525**	**210**	**837**

Results	External Vehicle Trips			VMT			
	Raw	Net	Reduction %	Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	12,278	10,304	16%	44,568	37,261	16%	74,376
AM Peak Hour	310	243	22%	1,300	992	24%	1,982
PM Peak Hour	1,090	837	23%	4,098	3,109	24%	6,200

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

Traditional MXD P-A calc for redistribution

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Productions	0	0	2	2	0	0	29	29
	0	0	0.962155	0.962155	0	0	13.66778	13.66778
	0	0	0.561018	0.561018	0	0	7.969471	7.969471
Attractions	0	0	2	2	0	0	29	29
	2.284006	10.78653	0.962155	14.03269	3.979663	32.67758	13.66778	50.32503
	17.2198	6.19261	0.561018	23.97343	30.00386	18.7604	7.969471	56.73373

walk/transit using BATS

al Capture	0	0	873		0	0	1019	
g External	42	551	295		32	417	292	
sit External	344	614	436	1394	375	527	375	1277
%s								
al Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
sit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors

AM HBW	AM HBO	AM NHB	PM HBW	PM HBO	PM NHB
2	11	2	4	33	29
17	6	1	30	19	17

131

average walk/transit

22	281	148	18	225	160
180	310	219	203	273	196

am	weight	10.1	89.9			
am		684	mxd	avg	weight avg	final
	hbw	0.101873	0	0.050937	0.010289	0
	hbo	0.101873	0	0.050937	0.010289	0
	nhb	0.101873	0.252323	0.177098	0.237128	0.263353
	agg	0.101873	0.071101	0.086487	0.074209	0.074209
pm	weight	36.5	63.5			
pm		684	mxd	avg		
	hbw	0.023359	0	0.011679	0.008526	0
	hbo	0.023359	0	0.011679	0.008526	0
	nhb	0.023359	0.294377	0.158868	0.195455	0.217186
	agg	0.023359	0.082952	0.053155	0.061200	0.0612

walk hb adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment	AM	PM
	0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values	
Transit H	31.89%	25.13%	31.89%	25.13%
Transit A	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NH	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bil	16.79%	8.35%	16.79%	8.35%
Walk+Bil	2.82%	5.39%	2.82%	5.39%
Walk+Bil	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

THIS SECTION DOES NOT APPLY - PROJECT SITE HAS NO RESIDENCES

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	0	0	0	0	0	0	0	0	0	0	0	0
Attractions	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Predicted Probabilities:												
Productions												
Internal Capture												
Walking External												
Transit External												
Attractions												
Internal Capture												
Walking External												
Transit External												
Total												
Internal Capture	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Walking External	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Transit External	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Number of Trips:												
Productions												
Internal Capture	0	0	0	0	0	0	0	0	0	0	0	0
Walking External	0	0	0	0	0	0	0	0	0	0	0	0
Transit External	0	0	0	0	0	0	0	0	0	0	0	0
Attractions												
Internal Capture	0	0	0	0	0	0	0	0	0	0	0	0
Walking External	0	0	0	0	0	0	0	0	0	0	0	0
Transit External	0	0	0	0	0	0	0	0	0	0	0	0
Total												
Internal Capture	0	0	0	0	0	0	0	0	0	0	0	0
Walking External	0	0	0	0	0	0	0	0	0	0	0	0
Transit External	0	0	0	0	0	0	0	0	0	0	0	0
Internal Capture including Site Specific Internal	0	0	0	0	0	0	0	0	0	0	0	0
NHB trips occuring outside the project			0				0				0	
Non-XX NHB trips based on MXD model			0				0				0	
NHB trips still occuring outside the project			0				0				0	
Net Number of IXXI Vehicle Trips generated by Project Residences	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!
AM Peak Hour	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!
PM Peak Hour	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	#DIV/0!

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - PROPOSED CORRIDOR 1

All shaded cells are inputs

Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	1	Zone - Vlookup		
Site Name	Long Beach M	Midtown Specific Plan - Co	int/sq mi	319

Geographic		**Notes / Instructions**
Developed Area (in acres)	40.1	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	20	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	18,345	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	384,544	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	22	DU	Log Equation	Linear Equation	Log Equation	261	25	27	44	1	4
Multi-Family	412	DU	Linear Equation	Linear Equation	Linear Equation	2,620	206	244	830	13	77
Townhouse	50	DU	Log Equation	Log Equation	Log Equation	352	30	34	101	2	9
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	83.665	ksf	Log Equation	Log Equation	Log Equation	6,048	140	532			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	1.992	ksf	Average Rate	Average Rate	Average Rate	253	22	20			
Fast-Food Restaurant	4	ksf	Average Rate	Average Rate	Average Rate	1,984	182	131			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	40.406	ksf	Log Equation	Log Equation	Linear Equation	659	93	124			
Medical	20	ksf	Average Rate	Average Rate	Average Rate	373	26	38			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	124.703	ksf	Average Rate	Average Rate	Average Rate	312	17	32			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**12,862**	**740**	**1,181**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	12,862	9,696	25%
AM Peak Hour	740	491	34%
PM Peak Hour	1,181	714	40%

Note the formulas are slightly different in this section <====

ITE Daily Parameters

Code	Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
210	9.52			0.92	2.72
220	6.65	6.06	123.56		
230	5.81			0.87	2.46
232	4.18	3.77	223.66		
820	42.7			0.65	5.83
850	102.24	66.95	1391.56		
912	148.15				
492	32.93				
932	127.15				
934	496.12				
945	1174.40				
942	26.8				
862	30.74				
813	50.75				
710	11.03			0.76	3.68
720	18.64	40.89	-214.97	0	0
110	6.97	7.47	-101.92		
140	3.82	3.88	-20.7		
151	2.5				
310	8.17	8.95	-373.16		
320	5.63			0.92	2.11
444	153.4139				
445	175.29				
550	1.71			0.86	1.93
530	1.71			0.81	1.86
522	1.62				
520	1.29				

AM PEAK HOUR TRIP RATES

Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
0.75	0.7	9.74		
0.51	0.49	3.73		
0.44			0.8	0.26
0.34	0.29	28.86		
0.96			0.61	2.24
3.4				
12.08				
1.41				
10.81				
45.42				
82.13				
2.25				
1.49				
1.85				
1.56			0.8	1.57
1.322152				
0.92	1.18	-89.28		
0.73	0.83	-29.52	0	0
0.14				
0.53				
0.45			0.92	-0.46
0				
0				
0.17			0.88	-0.68
0.43				
0.54				
0.45				

PM PEAK HOUR TRIP RATES

Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
1.00			0.9	0.51
0.62	0.55	17.65		
0.52			0.82	0.32
0.38	0.34	15.47		
3.71			0.67	3.31
9.48			0.74	3.25
24.3				
3.53			0.95	1.43
9.85				
32.65				
97.47				
3.11	2.41	11.79		
2.33				
4.35				
1.49	1.12	78.45		
1.910427			0.9	1.53
0.97	1.43	-157.36		
0.73	0.78	-15.97	0	0
0.26				
0.6				
0.47			0.94	-0.51
20.22				
13.64				
0.17			0.73	0.84
0.13				
0.16				
0.15				

Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice? Daily	AM Peak Hour	PM Peak Hour
	Yes	Yes	Yes
	Yes	Yes	Yes
	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
3.0	Yes	Yes	Yes
3.0	Yes	Yes	Yes
1.0	Yes	Yes	Yes
0.5	Yes	Yes	Yes
2.0	Yes	Yes	Yes
0.50	Yes	Yes	Yes
0.50	Yes	Yes	Yes
4.00	Yes	Yes	Yes
4.00	Yes	Yes	Yes
0.25	No	Yes	Yes
0.10	Yes	Yes	Yes
0.10	Yes	Yes	Yes
0.10	Yes	Yes	Yes

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - PROPOSED CORRIDOR 1

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	729	1954	1342	4025	120	116	19	255	95	161	133	388
Attractions	1354	5945	1538	8837	190	273	22	485	184	456	153	793
Total	2084	7899	2879	12862	309	390	41	740	279	616	286	1181
Predicted Probabilities:												
Productions												
Internal Capture	5.47%	8.44%	14.57%	14.91%	8.63%	13.29%	23.00%	17.28%	13.66%	21.05%	36.43%	35.01%
Walking External	6.99%	13.95%	8.07%	10.64%	9.23%	18.42%	8.15%	13.10%	6.99%	13.95%	8.07%	9.98%
Transit External	9.37%	3.97%	6.07%	5.72%	13.31%	8.53%	13.05%	11.24%	14.53%	7.93%	12.14%	11.26%
Attractions												
Internal Capture	5.47%	8.44%	14.57%	6.79%	8.63%	13.29%	23.00%	9.06%	13.66%	21.05%	36.43%	17.15%
Walking External	6.99%	13.95%	8.07%	11.91%	9.23%	18.42%	8.15%	14.34%	6.99%	13.95%	8.07%	11.30%
Transit External	9.37%	3.97%	6.07%	5.16%	13.31%	8.53%	13.05%	10.62%	14.53%	7.93%	12.14%	10.24%
Total												
Internal Capture	5.47%	8.43%	14.59%	9.33%	8.41%	13.34%	24.37%	11.89%	13.62%	21.09%	36.36%	23.02%
Walking External	6.99%	13.95%	8.07%	11.54%	9.23%	18.42%	8.15%	13.94%	6.99%	13.95%	8.07%	10.93%
Transit External	9.37%	3.97%	6.07%	5.32%	13.31%	8.53%	13.05%	10.82%	14.53%	7.93%	12.14%	10.52%
Number of Trips:												
Productions												
Internal Capture	57	333	210	600	13	26	5	44	19	65	52	136
Walking External	47	226	91	365	10	17	1	28	5	13	7	25
Transit External	63	64	69	196	14	8	2	24	11	8	10	28
Attractions												
Internal Capture	57	333	210	600	13	26	5	44	19	65	52	136
Walking External	91	783	107	981	16	46	1	63	12	55	8	74
Transit External	122	223	81	425	24	21	2	47	24	31	12	67
Total												
Internal Capture	114	666	420	1200	26	52	10	88	38	130	104	272
Walking External	138	1009	199	1345	26	62	3	91	17	68	15	99
Transit External	185	287	149	621	38	29	4	71	35	39	22	96
Internal Capture including Site Specific Internal	114	666	420	1200	26	52	10	88	38	130	104	272
Net Number of IXXI Vehicle Trips	**1647**	**5937**	**2112**	**9696**	**219**	**247**	**24**	**491**	**189**	**380**	**145**	**714**

Traditional MXD P-A calc for redistribution

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	8	16	3	27	8	26	21	55
Walking External	7.448594	12.60238	1.11031	21.16129	5.312098	13.3527	6.521856	25.18666
Transit External	9.983148	3.582683	0.834794	14.40062	7.119661	3.795989	4.903498	15.81915
Internal Capture	8	16	3	27	8	26	21	55
Walking External	12.36071	34.51287	1.394795	48.26837	11.53362	54.51371	8.174145	74.22147
Transit External	16.56672	9.811531	1.048686	27.42694	15.45819	15.49749	6.145782	37.10147

Total walk/transit using BATS								
Internal Capture	171	999	630		200	1166	735	
Walking External	182	1332	201		138	1009	199	
Transit External	262	701	365	1328	286	612	318	1217
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors							
Internal Capture	20	50	3	18	79	20	
Walking External	27	14	2	25	22	15	
							179

average walk/transit						
Internal Capture	101	691	102	78	544	109
Walking External	145	358	184	155	317	167

	am						
	weight	10.1	89.9				
	am	684	mxd	avg		weight avg	final
	hbw	0.210747	0.082063	0.146405		0.095060	0.086257
	hbo	0.210747	0.126467	0.168607		0.134979	0.132929
	nhb	0.210747	0.218799	0.214773		0.217985	0.22998
	agg	0.210747	0.139942	0.175345		0.147094	0.147094
	pm	weight	36.5	63.5			
	pm	684	mxd	avg			
	hbw	0.354248	0.09574	0.224994		0.190096	0.136618
	hbo	0.354248	0.147545	0.250897		0.222992	0.210541
	nhb	0.354248	0.255265	0.304757		0.291394	0.364254
	agg	0.354248	0.163266	0.258757		0.232975	0.232975

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	12,862	9,696	25%	49,168	37,602	24%	74,905
AM Peak Hour	740	491	34%	3,419	2,334	32%	4,646
PM Peak Hour	1,181	714	40%	4,795	3,030	37%	5,992

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values	
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	729	1954	0	2683	120	116	0	236	95	161	0	256
Attractions	0	353	196	550	0	21	4	25	0	29	20	50
Total	729	2307	196	3233	120	137	4	260	95	190	20	305
Predicted Probabilities:												
Productions												
Internal Capture	5.47%	8.44%	14.57%	14.91%	8.63%	13.29%	23.00%	17.28%	13.66%	21.05%	36.43%	35.01%
Walking External	6.99%	13.95%	8.07%	10.64%	9.23%	18.42%	8.15%	13.10%	6.99%	13.95%	8.07%	9.98%
Transit External	9.37%	3.97%	6.07%	5.72%	13.31%	8.53%	13.05%	11.24%	14.53%	7.93%	12.14%	11.26%
Attractions												
Internal Capture	5.47%	8.44%	14.57%	6.79%	8.63%	13.29%	23.00%	9.06%	13.66%	21.05%	36.43%	17.15%
Walking External	6.99%	13.95%	8.07%	11.91%	9.23%	18.42%	8.15%	14.34%	6.99%	13.95%	8.07%	11.30%
Transit External	9.37%	3.97%	6.07%	5.16%	13.31%	8.53%	13.05%	10.62%	14.53%	7.93%	12.14%	10.24%
Total												
Internal Capture	0.00%	8.41%	0.00%	6.00%	0.00%	13.10%	0.00%	6.91%	0.00%	21.08%	0.00%	13.11%
Walking External	6.99%	13.95%	8.07%	11.90%	9.23%	18.42%	8.15%	13.74%	6.99%	13.95%	8.07%	11.01%
Transit External	9.37%	3.97%	6.07%	5.40%	13.31%	8.53%	13.05%	10.95%	14.53%	7.93%	12.14%	10.62%
Number of Trips:												
Productions												
Internal Capture	0	97	0	97	0	9	0	9	0	20	0	20
Walking External	51	259	0	310	11	20	0	31	7	20	0	26
Transit External	68	74	0	142	16	9	0	25	14	11	0	25
Attractions												
Internal Capture	0	97	0	97	0	9	0	9	0	20	0	20
Walking External	0	36	16	52	0	2	0	3	0	1	2	3
Transit External	0	10	12	22	0	1	0	1	0	1	2	3
Total												
Internal Capture	0	194	0	194	0	18	0	18	0	40	0	40
Walking External	51	295	16	362	11	22	0	33	7	21	2	29
Transit External	68	84	12	164	16	10	0	27	14	12	2	28
Internal Capture including Site Specific Internal	0	194	0	194	0	18	0	18	0	40	0	40
NHB trips occuring outside the project			974				15				90	
Non-XX NHB trips based on MXD model			142				4				33	
NHB trips still occuring outside the project			832				12				57	
Net Number of IXXI Vehicle Trips generated by Project Residences	**610**	**1735**	**169**	**2513**	**93**	**87**	**3**	**183**	**75**	**117**	**16**	**208**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	3,233	2,513	22%	32,509	26,598	18%	67.2	55.0
AM Peak Hour	260	183	30%	2,575	1,885	27%	5.3	3.9
PM Peak Hour	305	208	32%	3,221	2,354	27%	6.7	4.9

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - PROPOSED CORRIDOR 2

All shaded cells are inputs

Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	2	Zone - Vlookup
Site Name	Long Beach M	Midtown Specific Plan - Co int/sq mi 227

Geographic		**Notes / Instructions**
Developed Area (in acres)	84.6	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	30	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	16,632	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	348,878	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	0	DU	Log Equation	Linear Equation	Log Equation	0	0	0	0	0	0
Multi-Family	699	DU	Linear Equation	Linear Equation	Linear Equation	4,360	346	402	1,407	22	130
Townhouse	225	DU	Log Equation	Log Equation	Log Equation	1,302	99	117	453	7	42
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	250	ksf	Log Equation	Log Equation	Log Equation	12,320	273	1,107			
Supermarket	50	ksf	Average Rate	Average Rate	Average Rate	5,112	170	474			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	10	ksf	Average Rate	Average Rate	Average Rate	1,272	108	99			
Fast-Food Restaurant	1.11	ksf	Average Rate	Average Rate	Average Rate	551	50	36			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	20.705	ksf	Log Equation	Log Equation	Linear Equation	397	54	102			
Medical	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**25,312**	**1,100**	**2,336**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	25,312	19,299	24%
AM Peak Hour	1,100	754	32%
PM Peak Hour	2,336	1,476	37%

Note the formulas are slightly different in this section <====

ITE Daily Parameters

Code	Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
210	9.52			0.92	2.72
220	6.65	6.06	123.56		
230	5.81			0.87	2.46
232	4.18	3.77	223.66		
820	42.7			0.65	5.83
850	102.24	66.95	1391.56		
912	148.15				
492	32.93				
932	127.15				
934	496.12				
945	1174.40				
942	26.8				
862	30.74				
813	50.75				
710	11.03			0.76	3.68
720	18.64	40.89	-214.97	0	0
110	6.97	7.47	-101.92		
140	3.82	3.88	-20.7		
151	2.5				
310	8.17	8.95	-373.16		
320	5.63			0.92	2.11
444	153.4139				
445	175.29				
550	1.71			0.86	1.93
530	1.71			0.81	1.86
522	1.62				
520	1.29				

AM PEAK HOUR TRIP RATES

Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
0.75	0.7	9.74		
0.51	0.49	3.73		
0.44			0.8	0.26
0.34	0.29	28.86		
0.96			0.61	2.24
3.4				
12.08				
1.41				
10.81				
45.42				
82.13				
2.25				
1.49				
1.85				
1.56			0.8	1.57
1.322152				
0.92	1.18	-89.28		
0.73	0.83	-29.52	0	0
0.14				
0.53				
0.45			0.92	-0.46
0				
0				
0.17			0.88	-0.68
0.43				
0.54				
0.45				

PM PEAK HOUR TRIP RATES

Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
1.00			0.9	0.51
0.62	0.55	17.65		
0.52			0.82	0.32
0.38	0.34	15.47		
3.71			0.67	3.31
9.48			0.74	3.25
24.3				
3.53			0.95	1.43
9.85				
32.65				
97.47				
3.11	2.41	11.79		
2.33				
4.35				
1.49	1.12	78.45		
1.910427			0.9	1.53
0.97	1.43	-157.36		
0.73	0.78	-15.97	0	0
0.26				
0.6				
0.47			0.94	-0.51
20.22				
13.64				
0.17			0.73	0.84
0.13				
0.16				
0.15				

Valid Trip Gen Calc Choice?

Jobs Per Input Unit (if Applicable)	Daily	AM Peak Hour	PM Peak Hour
	Yes	Yes	Yes
	Yes	Yes	Yes
	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
3.0	Yes	Yes	Yes
3.0	Yes	Yes	Yes
1.0	Yes	Yes	Yes
0.5	Yes	Yes	Yes
2.0	Yes	Yes	Yes
0.50	Yes	Yes	Yes
0.50	Yes	Yes	Yes
4.00	Yes	Yes	Yes
4.00	Yes	Yes	Yes
0.25	No	Yes	Yes
0.10	Yes	Yes	Yes
0.10	Yes	Yes	Yes
0.10	Yes	Yes	Yes

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - PROPOSED CORRIDOR 2

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	1278	3422	2767	7467	204	199	28	431	161	273	284	719
Attractions	2051	12683	3111	17845	204	431	34	670	281	1017	319	1617
Total	3329	16105	5879	25312	409	630	62	1100	443	1290	604	2336
Predicted Probabilities:												
Productions												
Internal Capture	6.19%	11.75%	16.62%	20.60%	9.04%	17.15%	24.29%	18.34%	12.18%	23.12%	32.74%	38.24%
Walking External	7.25%	10.03%	5.49%	7.73%	9.57%	13.24%	5.54%	10.85%	7.25%	10.03%	5.49%	7.29%
Transit External	6.47%	3.66%	6.00%	5.11%	9.18%	7.87%	12.89%	8.86%	10.03%	7.32%	11.99%	10.09%
Attractions												
Internal Capture	6.19%	11.75%	16.62%	8.62%	9.04%	17.15%	24.29%	11.80%	12.18%	23.12%	32.74%	17.01%
Walking External	7.25%	10.03%	5.49%	8.97%	9.57%	13.24%	5.54%	11.73%	7.25%	10.03%	5.49%	8.76%
Transit External	6.47%	3.66%	6.00%	4.37%	9.18%	7.87%	12.89%	8.51%	10.03%	7.32%	11.99%	8.60%
Total												
Internal Capture	6.19%	11.75%	16.64%	12.15%	8.81%	17.14%	22.76%	14.36%	12.20%	23.10%	32.80%	23.54%
Walking External	7.25%	10.03%	5.49%	8.64%	9.57%	13.24%	5.54%	11.40%	7.25%	10.03%	5.49%	8.40%
Transit External	6.47%	3.66%	6.00%	4.57%	9.18%	7.87%	12.89%	8.64%	10.03%	7.32%	11.99%	8.97%
Number of Trips:												
Productions												
Internal Capture	103	946	489	1538	18	54	7	79	27	149	99	275
Walking External	85	248	125	459	18	19	1	38	10	12	10	32
Transit External	76	91	137	303	17	11	3	31	13	9	22	45
Attractions												
Internal Capture	103	946	489	1538	18	54	7	79	27	149	99	275
Walking External	141	1177	144	1463	18	50	1	69	18	87	12	118
Transit External	126	430	157	713	17	30	3	50	25	64	26	115
Total												
Internal Capture	206	1892	978	3076	36	108	14	158	54	298	198	550
Walking External	226	1426	269	1921	36	69	3	107	28	100	22	150
Transit External	202	520	294	1016	34	41	6	81	39	73	49	160
Internal Capture including Site Specific Internal	206	1892	978	3076	36	108	14	158	54	298	198	550
Net Number of IXXI Vehicle Trips	**2694**	**12257**	**4338**	**19299**	**303**	**412**	**39**	**754**	**321**	**820**	**335**	**1476**

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Traditional MXD P-A calc for redistribution								
Internal Capture	13	37	5	55	14	76	50	140
Walking External	13.50604	14.52574	1.138394	29.17217	9.753948	12.46741	10.17276	32.39412
Transit External	12.04736	5.300994	1.244017	18.59237	8.699214	4.549831	11.11662	24.36567
Internal Capture	13	37	5	55	14	76	50	140
Walking External	13.51885	37.86614	1.468815	52.8538	18.42281	87.0642	12.08236	117.5694
Transit External	12.057	13.81879	1.605096	27.48089	16.43067	31.77303	13.20339	61.4071

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Total walk/transit using BATS								
Internal Capture	309	2838	1467		361	3311	1712	
Walking External	299	1882	272		226	1426	269	
Transit External	287	1206	681	2174	313	1073	606	1992
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
walk/transit using ITE peak hour factors								
Internal Capture	28	56	3		30	114	28	
Walking External	25	20	3		27	42	30	
Transit External				271				
average walk/transit								
Internal Capture	163	969	137		128	770	148	
Walking External	156	613	342		170	557	318	

	am						
		weight	10.1	89.9			
	am		684	mxd	avg	weight avg	final
		hbw	0.134279	0.092833	0.113556	0.097019	0.090364
		hbo	0.134279	0.176215	0.155247	0.171980	0.171528
		nhb	0.134279	0.249549	0.191914	0.237907	0.242911
		agg	0.134279	0.182282	0.158281	0.177434	0.177434
	pm	weight	36.5	63.5			
	pm		684	mxd	avg		
		hbw	0.285129	0.108306	0.196718	0.172846	0.121777
		hbo	0.285129	0.205585	0.245357	0.234618	0.231155
		nhb	0.285129	0.29114	0.288135	0.288946	0.327352
		agg	0.285129	0.212662	0.248896	0.239113	0.239113

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	25,312	19,299	24%	94,329	73,172	22%	145,576
AM Peak Hour	1,100	754	32%	4,921	3,482	29%	6,924
PM Peak Hour	2,336	1,476	37%	9,141	6,041	34%	11,945

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values	
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	1278	3422	0	4700	204	199	0	403	161	273	0	435
Attractions	0	619	344	962	0	36	6	42	0	49	35	84
Total	1278	4041	344	5662	204	235	6	445	161	323	35	519
Predicted Probabilities:												
Productions												
Internal Capture	6.19%	11.75%	16.62%	20.60%	9.04%	17.15%	24.29%	18.34%	12.18%	23.12%	32.74%	38.24%
Walking External	7.25%	10.03%	5.49%	7.73%	9.57%	13.24%	5.54%	10.85%	7.25%	10.03%	5.49%	7.29%
Transit External	6.47%	3.66%	6.00%	5.11%	9.18%	7.87%	12.89%	8.86%	10.03%	7.32%	11.99%	10.09%
Attractions												
Internal Capture	6.19%	11.75%	16.62%	8.62%	9.04%	17.15%	24.29%	11.80%	12.18%	23.12%	32.74%	17.01%
Walking External	7.25%	10.03%	5.49%	8.97%	9.57%	13.24%	5.54%	11.73%	7.25%	10.03%	5.49%	8.76%
Transit External	6.47%	3.66%	6.00%	4.37%	9.18%	7.87%	12.89%	8.51%	10.03%	7.32%	11.99%	8.60%
Total												
Internal Capture	0.00%	11.73%	0.00%	8.37%	0.00%	17.04%	0.00%	8.99%	0.00%	22.93%	0.00%	14.26%
Walking External	7.25%	10.03%	5.49%	9.05%	9.57%	13.24%	5.54%	11.28%	7.25%	10.03%	5.49%	8.67%
Transit External	6.47%	3.66%	6.00%	4.51%	9.18%	7.87%	12.89%	8.61%	10.03%	7.32%	11.99%	8.67%
Number of Trips:												
Productions												
Internal Capture	0	237	0	237	0	20	0	20	0	37	0	37
Walking External	93	320	0	412	20	24	0	43	12	24	0	35
Transit External	83	117	0	199	19	14	0	33	16	17	0	33
Attractions												
Internal Capture	0	237	0	237	0	20	0	20	0	37	0	37
Walking External	0	38	19	57	0	2	0	2	0	1	2	3
Transit External	0	14	21	35	0	1	1	2	0	1	4	5
Total												
Internal Capture	0	474	0	474	0	40	0	40	0	74	0	74
Walking External	93	358	19	469	20	26	0	46	12	25	2	39
Transit External	83	131	21	234	19	15	1	35	16	18	4	39
Internal Capture including Site Specific Internal	0	474	0	474	0	40	0	40	0	74	0	74
NHB trips occuring outside the project			1860				29				172	
Non-XX NHB trips based on MXD model			309				7				56	
NHB trips still occuring outside the project			1551				22				116	
Net Number of IXXI Vehicle Trips generated by Project Residences	**1102**	**3078**	**304**	**4485**	**166**	**154**	**5**	**324**	**134**	**206**	**29**	**368**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	5,662	4,485	21%	57,971	48,221	17%	62.7	52.2
AM Peak Hour	445	324	27%	4,421	3,372	24%	4.8	3.6
PM Peak Hour	519	368	29%	5,604	4,268	24%	6.1	4.6

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - PROPOSED CORRIDOR 3

All shaded cells are inputs

Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	3	Zone - Vlookup
Site Name	Long Beach M	Midtown Specific Plan - Co int/sq mi 286

Geographic		**Notes / Instructions**
Developed Area (in acres)	26.9	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	12	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	11,866	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	319,980	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	0	DU	Log Equation	Linear Equation	Log Equation	0	0	0	0	0	0
Multi-Family	325	DU	Linear Equation	Linear Equation	Linear Equation	2,093	163	196	654	10	60
Townhouse	125	DU	Log Equation	Log Equation	Log Equation	781	62	72	252	4	23
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	0	ksf	Log Equation	Log Equation	Log Equation	0	0	0			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Fast-Food Restaurant	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	0	ksf	Log Equation	Log Equation	Linear Equation	0	0	0			
Medical	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	375	Students	Linear Equation	Average Rate	Average Rate	Error	64	64			
High School	363	Students	Average Rate	Average Rate	Average Rate	621	156	47			
Middle School	152	Students	Average Rate	Average Rate	Average Rate	246	82	24			
Elementary	304	Students	Average Rate	Average Rate	Average Rate	392	137	46			
	495										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**4,133**	**663**	**449**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	4,133	3,149	24%
AM Peak Hour	663	447	33%
PM Peak Hour	449	323	28%

Note the formulas are slightly different in this section <====

ITE Daily Parameters

Code	Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
210	9.52			0.92	2.72
220	6.65	6.06	123.56		
230	5.81			0.87	2.46
232	4.18	3.77	223.66		
820	42.7			0.65	5.83
850	102.24	66.95	1391.56		
912	148.15				
492	32.93				
932	127.15				
934	496.12				
945	1174.40				
942	26.8				
862	30.74				
813	50.75				
710	11.03			0.76	3.68
720	18.64	40.89	-214.97	0	0
110	6.97	7.47	-101.92		
140	3.82	3.88	-20.7		
151	2.5				
310	8.17	8.95	-373.16		
320	5.63			0.92	2.11
444	153.4139				
445	175.29				
550	1.71			0.86	1.93
530	1.71			0.81	1.86
522	1.62				
520	1.29				

AM PEAK HOUR TRIP RATES

Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
0.75	0.7	9.74		
0.51	0.49	3.73		
0.44			0.8	0.26
0.34	0.29	28.86		
0.96			0.61	2.24
3.4				
12.08				
1.41				
10.81				
45.42				
82.13				
2.25				
1.49				
1.85				
1.56			0.8	1.57
1.322152				
0.92	1.18	-89.28		
0.73	0.83	-29.52	0	0
0.14				
0.53				
0.45			0.92	-0.46
0				
0				
0.17			0.88	-0.68
0.43				
0.54				
0.45				

PM PEAK HOUR TRIP RATES

Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant
1.00			0.9	0.51
0.62	0.55	17.65		
0.52			0.82	0.32
0.38	0.34	15.47		
3.71			0.67	3.31
9.48			0.74	3.25
24.3				
3.53			0.95	1.43
9.85				
32.65				
97.47				
3.11	2.41	11.79		
2.33				
4.35				
1.49	1.12	78.45		
1.910427			0.9	1.53
0.97	1.43	-157.36		
0.73	0.78	-15.97	0	0
0.26				
0.6				
0.47			0.94	-0.51
20.22				
13.64				
0.17			0.73	0.84
0.13				
0.16				
0.15				

Valid Trip Gen Calc Choice?

Jobs Per Input Unit (if Applicable)	Daily	AM Peak Hour	PM Peak Hour
	Yes	Yes	Yes
	Yes	Yes	Yes
	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
2.0	Yes	Yes	Yes
3.0	Yes	Yes	Yes
3.0	Yes	Yes	Yes
1.0	Yes	Yes	Yes
0.5	Yes	Yes	Yes
2.0	Yes	Yes	Yes
0.50	Yes	Yes	Yes
0.50	Yes	Yes	Yes
4.00	Yes	Yes	Yes
4.00	Yes	Yes	Yes
0.25	No	Yes	Yes
0.10	Yes	Yes	Yes
0.10	Yes	Yes	Yes
0.10	Yes	Yes	Yes

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - PROPOSED CORRIDOR 3

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	649	1737	164	2549	103	100	57	261	84	141	24	249
Attractions	126	1120	338	1584	44	299	60	403	18	141	42	201
Total	774	2857	502	4133	147	399	117	663	102	283	65	449
Predicted Probabilities:												
Productions												
Internal Capture	6.39%	7.94%	9.23%	6.32%	8.71%	10.67%	12.36%	13.05%	7.17%	8.79%	10.19%	7.65%
Walking External	6.54%	14.98%	6.34%	12.27%	8.63%	19.77%	6.40%	12.04%	6.54%	14.98%	6.34%	11.28%
Transit External	8.07%	4.03%	5.93%	5.20%	11.46%	8.67%	12.75%	10.77%	12.51%	8.07%	11.86%	9.95%
Attractions												
Internal Capture	6.39%	7.94%	9.23%	10.16%	8.71%	10.67%	12.36%	8.44%	7.17%	8.79%	10.19%	9.46%
Walking External	6.54%	14.98%	6.34%	12.47%	8.63%	19.77%	6.40%	16.70%	6.54%	14.98%	6.34%	12.50%
Transit External	8.07%	4.03%	5.93%	4.74%	11.46%	8.67%	12.75%	9.58%	12.51%	8.07%	11.86%	9.22%
Total												
Internal Capture	6.46%	7.91%	9.17%	7.79%	8.16%	10.52%	11.95%	10.25%	7.87%	8.49%	9.23%	8.45%
Walking External	6.54%	14.98%	6.34%	12.34%	8.63%	19.77%	6.40%	14.93%	6.54%	14.98%	6.34%	11.82%
Transit External	8.07%	4.03%	5.93%	5.03%	11.46%	8.67%	12.75%	10.01%	12.51%	8.07%	11.86%	9.63%
Number of Trips:												
Productions												
Internal Capture	25	113	23	161	6	21	7	34	4	12	3	19
Walking External	41	243	9	293	8	16	3	27	5	19	1	26
Transit External	50	66	8	124	11	7	6	24	10	10	2	23
Attractions												
Internal Capture	25	113	23	161	6	21	7	34	4	12	3	19
Walking External	7	151	20	177	3	55	3	62	1	19	2	23
Transit External	8	41	19	67	4	24	7	35	2	10	5	17
Total												
Internal Capture	50	226	46	322	12	42	14	68	8	24	6	38
Walking External	47	394	29	470	12	71	7	89	6	39	4	49
Transit External	58	106	27	192	15	31	13	60	12	21	7	40
Internal Capture including Site Specific Internal	50	226	46	322	12	42	14	68	8	24	6	38
Net Number of IXXI Vehicle Trips	**619**	**2131**	**400**	**3149**	**108**	**256**	**83**	**447**	**76**	**199**	**48**	**323**

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Traditional MXD P-A calc for redistribution								
Internal Capture	5	16	5	26	3	11	3	17
Walking External	6.352913	11.88955	3.170961	21.41342	5.204449	19.38591	1.299969	25.89033
Transit External	7.842044	3.202831	2.967144	14.01182	6.424378	5.221892	1.216412	12.88268
Internal Capture	5	16	5	26	3	11	3	17
Walking External	2.476915	41.62908	3.363692	47.46969	0.921257	19.36985	2.441584	22.73269
Transit External	3.057508	11.21343	3.147488	17.41842	1.1372	5.217566	2.284649	8.639415

Total walk/transit using BATS								
Internal Capture	75	339	69		88	396	81	
Walking External	63	520	29		47	394	29	
Transit External	83	261	66	410	91	227	58	376
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors								
Internal Capture	9	55	7		6	39	4	
Walking External	11	15	6		8	11	4	
Transit External								
Internal Capture								
Walking External								
Transit External								

average walk/transit								
Internal Capture	36	288	18		27	217	16	
Walking External	47	138	36		49	119	31	
Transit External				71				

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	8	24	6	38	7	21	5	33
Walking External	6	39	4	49	5	19	1	25
Transit External	11	15	6	40	10	10	2	22
%s								
Internal Capture	1.50	1.50	1.50	38	1.75	1.75	1.75	38
Walking External	1.32	1.32	1.01	49	1.00	1.00	1.00	49
Transit External	1.42	2.15	2.15	40	1.55	2.00	2.00	40

am	weight	10.1	89.9					
am		684	mxd	avg		weight avg	final	
	hbw	0	0.096646	0.048423		0.087065	0.087065	
	hbo	0	0.118657	0.059329		0.106673	0.106673	
	nhb	0	0.137493	0.068746		0.123606	0.123606	
	agg	0	0.116858	0.058429		0.105055	0.105055	
pm	weight	36.5	63.5					
pm		684	mxd	avg				
	hbw	0	0.112988	0.056494		0.071747	0.071747	
	hbo	0	0.138433	0.069217		0.087905	0.087905	
	nhb	0	0.160408	0.080204		0.101859	0.101859	
	agg	0	0.136334	0.068167		0.086572	0.086572	

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	4,133	3,149	24%	16,096	12,436	23%	24,792
AM Peak Hour	663	447	33%	2,659	1,836	31%	3,656
PM Peak Hour	449	323	28%	1,806	1,317	27%	2,625

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values	
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	649	1737	0	2386	103	100	0	204	84	141	0	225
Attractions	0	314	174	489	0	18	3	21	0	26	18	44
Total	649	2051	174	2874	103	119	3	225	84	167	18	269
Predicted Probabilities:												
Productions												
Internal Capture	6.39%	7.94%	9.23%	6.32%	8.71%	10.67%	12.36%	13.05%	7.17%	8.79%	10.19%	7.65%
Walking External	6.54%	14.98%	6.34%	12.27%	8.63%	19.77%	6.40%	12.04%	6.54%	14.98%	6.34%	11.28%
Transit External	8.07%	4.03%	5.93%	5.20%	11.46%	8.67%	12.75%	10.77%	12.51%	8.07%	11.86%	9.95%
Attractions												
Internal Capture	6.39%	7.94%	9.23%	10.16%	8.71%	10.67%	12.36%	8.44%	7.17%	8.79%	10.19%	9.46%
Walking External	6.54%	14.98%	6.34%	12.47%	8.63%	19.77%	6.40%	16.70%	6.54%	14.98%	6.34%	12.50%
Transit External	8.07%	4.03%	5.93%	4.74%	11.46%	8.67%	12.75%	9.55%	12.51%	8.07%	11.86%	9.22%
Total												
Internal Capture	0.00%	7.90%	0.00%	5.64%	0.00%	10.12%	0.00%	5.34%	0.00%	8.38%	0.00%	5.21%
Walking External	6.54%	14.98%	6.34%	12.40%	8.63%	19.77%	6.40%	14.18%	6.54%	14.98%	6.34%	11.60%
Transit External	8.07%	4.03%	5.93%	5.12%	11.46%	8.67%	12.75%	10.09%	12.51%	8.07%	11.86%	9.80%
Number of Trips:												
Productions												
Internal Capture	0	81	0	81	0	6	0	6	0	7	0	7
Walking External	42	248	0	290	9	19	0	28	5	20	0	26
Transit External	52	67	0	119	12	8	0	20	10	11	0	21
Attractions												
Internal Capture	0	81	0	81	0	6	0	6	0	7	0	7
Walking External	0	35	11	46	0	2	0	3	0	3	1	4
Transit External	0	9	10	20	0	1	0	1	0	1	2	4
Total												
Internal Capture	0	162	0	162	0	12	0	12	0	14	0	14
Walking External	42	283	11	336	9	21	0	30	5	23	1	30
Transit External	52	76	10	139	12	9	0	21	10	12	2	25
Internal Capture including Site Specific Internal	0	162	0	162	0	12	0	12	0	14	0	14
NHB trips occuring outside the project			906				14				84	
Non-XX NHB trips based on MXD model			84				2				9	
NHB trips still occuring outside the project			822				12				75	
Net Number of IXXI Vehicle Trips generated by Project Residences	**554**	**1530**	**153**	**2237**	**82**	**76**	**2**	**161**	**68**	**118**	**15**	**200**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	2,874	2,237	22%	29,168	24,139	17%	64.8	53.6
AM Peak Hour	225	161	28%	2,229	1,676	25%	5.0	3.7
PM Peak Hour	269	200	25%	2,865	2,289	20%	6.4	5.1

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - PROPOSED CORRIDOR 4

All shaded cells are inputs

Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	4	Zone - Vlookup		
Site Name	Long Beach M	Midtown Specific Plan - Mec	int/sq mi	162

Geographic		**Notes / Instructions**
Developed Area (in acres)	70.9	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	18	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	No	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	20,598	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	381,206	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	0	DU	Log Equation	Linear Equation	Log Equation	0	0	0	0	0	0
Multi-Family	300	DU	Linear Equation	Linear Equation	Linear Equation	1,942	151	183	604	9	56
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	70	ksf	Log Equation	Log Equation	Log Equation	5,386	125	472			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	31.6	ksf	Average Rate	Average Rate	Average Rate	4,018	342	311			
Fast-Food Restaurant	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	0	ksf	Log Equation	Log Equation	Linear Equation	0	0	0			
Medical	656	ksf	Average Rate	Average Rate	Average Rate	12,230	867	1,253			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**23,575**	**1,485**	**2,219**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	23,575	19,335	18%
AM Peak Hour	1,485	1,148	23%
PM Peak Hour	2,219	1,573	29%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice?: Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.64	40.89	-214.97	0	0	1.322152					1.910427			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <<<<<

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - PROPOSED CORRIDOR 4

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	438	1173	3012	4623	69	67	46	183	57	96	296	449
Attractions	5014	10808	3130	18952	703	551	48	1302	630	831	308	1770
Total	5452	11982	6141	23575	772	619	95	1485	687	927	605	2219
Predicted Probabilities:												
Productions												
Internal Capture	3.14%	4.92%	15.86%	18.77%	5.26%	8.21%	26.44%	31.19%	7.08%	11.06%	35.61%	40.73%
Walking External	5.32%	8.56%	4.91%	5.80%	7.02%	11.30%	4.96%	7.30%	5.32%	8.56%	4.91%	5.58%
Transit External	4.62%	3.84%	6.06%	5.41%	6.56%	8.25%	13.03%	8.89%	7.16%	7.68%	12.13%	10.76%
Attractions												
Internal Capture	3.14%	4.92%	15.86%	4.58%	5.26%	8.21%	26.44%	4.38%	7.08%	11.06%	35.61%	10.34%
Walking External	5.32%	8.56%	4.91%	7.14%	7.02%	11.30%	4.96%	8.77%	5.32%	8.56%	4.91%	6.86%
Transit External	4.62%	3.84%	6.06%	4.38%	6.56%	8.25%	13.03%	7.47%	7.16%	7.68%	12.13%	8.04%
Total												
Internal Capture	3.15%	4.92%	15.86%	7.36%	5.18%	8.08%	25.40%	7.68%	6.99%	11.00%	35.72%	16.49%
Walking External	5.32%	8.56%	4.91%	6.91%	7.02%	11.30%	4.96%	8.69%	5.32%	8.56%	4.91%	6.67%
Transit External	4.62%	3.84%	6.06%	4.55%	6.56%	8.25%	13.03%	7.60%	7.16%	7.68%	12.13%	8.43%
Number of Trips:												
Productions												
Internal Capture	86	295	487	868	20	25	12	57	24	51	108	183
Walking External	19	75	124	218	3	5	2	10	2	4	9	15
Transit External	16	34	153	203	3	3	4	11	2	3	23	29
Attractions												
Internal Capture	86	295	487	868	20	25	12	57	24	51	108	183
Walking External	262	900	130	1291	48	59	2	109	32	67	10	109
Transit External	228	404	160	792	45	43	5	93	43	60	24	128
Total												
Internal Capture	172	590	974	1736	40	50	24	114	48	102	216	366
Walking External	281	975	254	1509	51	64	3	119	34	71	19	124
Transit External	244	437	313	995	48	47	9	104	46	63	47	156
Internal Capture including Site Specific Internal	172	590	974	1736	40	50	24	114	48	102	216	366
Net Number of IXXI Vehicle Trips	**4755**	**9980**	**4600**	**19335**	**633**	**457**	**58**	**1148**	**559**	**691**	**323**	**1573**

Traditional MXD P-A calc for redistribution

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	12	15	7	34	11	23	48	82
Walking External	2.614348	3.622994	1.680879	7.918221	1.745385	3.866319	9.243764	14.85547
Transit External	2.272948	1.625024	2.075284	5.973255	1.51746	1.734163	11.41274	14.66436
Internal Capture	12	15	7	34	11	23	48	82
Walking External	36.29673	45.03361	1.781047	83.11139	32.23031	66.7383	9.845276	108.8139
Transit External	31.55685	20.19896	2.198955	53.95476	28.02145	29.93418	12.15539	70.11102

Total walk/transit using BATS

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	258	885	1461		301	1033	1705	
Walking External	370	1287	256		281	975	254	
Transit External	346	1038	744	2128	378	915	656	1949
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	40	50	4		35	75	25	
Walking External	35	23	5		31	34	31	
Transit External								231

average walk/transit

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Internal Capture	205	669	130		158	525	139	
Walking External	191	530	374		204	475	343	
Transit External								

	am	pm
weight	10.1	89.9
	684	mxd

	am	pm
weight	36.5	63.5
	684	mxd

	am	pm	avg	weight avg	final
hbw	0.232543	0.047324	0.139933	0.066031	0.052607
hbo	0.232543	0.073862	0.153202	0.089889	0.082108
nhb	0.232543	0.237892	0.235218	0.237352	0.264449
agg	0.232543	0.110456	0.171499	0.122787	0.122787
hbw	0.228797	0.055211	0.142004	0.118570	0.070838
hbo	0.228797	0.086172	0.157485	0.138231	0.110564
nhb	0.228797	0.277541	0.253169	0.259750	0.356099
agg	0.228797	0.128865	0.178831	0.165340	0.16534

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	23,575	19,335	18%	95,366	79,512	17%	158589.1
AM Peak Hour	1,485	1,148	23%	7,341	5,815	21%	11601.92
PM Peak Hour	2,219	1,573	29%	9,530	7,067	26%	14043.34

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

	AM	PM
	0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values AM	original values PM
Transit Hl	31.89%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	438	1173	0	1612	69	67	0	137	57	96	0	153
Attractions	0	212	118	330	0	12	2	14	0	17	12	30
Total	438	1386	118	1942	69	80	2	151	57	114	12	183
Predicted Probabilities:												
Productions												
Internal Capture	3.14%	4.92%	15.86%	18.77%	5.26%	8.21%	26.44%	31.19%	7.08%	11.06%	35.61%	40.73%
Walking External	5.32%	8.56%	4.91%	5.80%	7.02%	11.30%	4.96%	7.90%	5.32%	8.56%	4.91%	5.58%
Transit External	4.62%	3.84%	6.06%	5.41%	6.56%	8.25%	13.03%	8.89%	7.16%	7.68%	12.13%	10.76%
Attractions												
Internal Capture	3.14%	4.92%	15.86%	4.58%	5.26%	8.21%	26.44%	4.38%	7.08%	11.06%	35.61%	10.34%
Walking External	5.32%	8.56%	4.91%	7.14%	7.02%	11.30%	4.96%	8.77%	5.32%	8.56%	4.91%	6.86%
Transit External	4.62%	3.84%	6.06%	4.38%	6.56%	8.25%	13.03%	7.47%	7.16%	7.68%	12.13%	8.04%
Total												
Internal Capture	0.00%	4.91%	0.00%	3.50%	0.00%	7.55%	0.00%	3.98%	0.00%	10.57%	0.00%	6.57%
Walking External	5.32%	8.56%	4.91%	7.57%	7.02%	11.30%	4.96%	9.16%	5.32%	8.56%	4.91%	7.22%
Transit External	4.62%	3.84%	6.06%	4.16%	6.56%	8.25%	13.03%	7.51%	7.16%	7.68%	12.13%	7.83%
Number of Trips:												
Productions												
Internal Capture	0	34	0	34	0	3	0	3	0	6	0	6
Walking External	23	98	0	121	5	7	0	12	3	8	0	11
Transit External	20	44	0	64	5	5	0	10	4	7	0	11
Attractions												
Internal Capture	0	34	0	34	0	3	0	3	0	6	0	6
Walking External	0	15	6	21	0	1	0	1	0	1	1	2
Transit External	0	7	7	14	0	1	0	1	0	1	1	2
Total												
Internal Capture	0	68	0	68	0	6	0	6	0	12	0	12
Walking External	23	113	6	142	5	8	0	13	3	9	1	12
Transit External	20	51	7	78	5	6	0	11	4	8	1	13
Internal Capture including Site Specific Internal	0	68	0	68	0	6	0	6	0	12	0	12
NHB trips occuring outside the project			604				9				56	
Non-XX NHB trips based on MXD model			96				3				20	
NHB trips still occuring outside the project			508				7				36	
Net Number of IXXI Vehicle Trips generated by Project Residences	**395**	**1154**	**105**	**1654**	**60**	**59**	**2**	**121**	**50**	**85**	**10**	**145**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	1,942	1,654	15%	19,650	17,184	13%	65.5	57.3
AM Peak Hour	151	121	20%	1,495	1,230	18%	5.0	4.1
PM Peak Hour	183	145	21%	1,941	1,586	18%	6.5	5.3

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - PROPOSED CORRIDOR 5

All shaded cells are inputs

Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	5	Zone - Vlookup		
Site Name	Long Beach M	Midtown Specific Plan - Tra	int/sq mi	185

Geographic		**Notes / Instructions**
Developed Area (in acres)	79.4	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	23	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	Yes	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	18,599	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	376,620	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	0	DU	Log Equation	Linear Equation	Log Equation	0	0	0	0	0	0
Multi-Family	774	DU	Linear Equation	Linear Equation	Linear Equation	4,814	383	443	1,559	24	144
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	417	ksf	Log Equation	Log Equation	Log Equation	17,180	372	1,560			
Supermarket	25	ksf	Average Rate	Average Rate	Average Rate	2,556	85	237			
Bank	5	ksf	Average Rate	Average Rate	Average Rate	741	60	122			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	24	ksf	Average Rate	Average Rate	Average Rate	3,052	259	236			
Fast-Food Restaurant	4	ksf	Average Rate	Average Rate	Average Rate	1,984	182	131			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	150	ksf	Log Equation	Log Equation	Linear Equation	1,787	265	246			
Medical	200	ksf	Average Rate	Average Rate	Average Rate	3,729	264	382			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	175										
Hotel (including restaurant, facilities, etc...)	158	Rooms	Average Rate	Average Rate	Average Rate	1,291	84	95			
Motel	18	Rooms	Average Rate	Average Rate	Average Rate	101	8	8			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	400	Students	Average Rate	Average Rate	Average Rate	648	216	64			
Elementary	800	Students	Average Rate	Average Rate	Average Rate	1,032	360	120			
	1200										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**38,914**	**2,539**	**3,644**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	38,914	30,843	21%
AM Peak Hour	2,539	1,841	27%
PM Peak Hour	3,644	2,414	34%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice?: Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.64	40.89	-214.97	0	0	1.322152					1.910427			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <<<<<

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - PROPOSED CORRIDOR 5

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	1086	2910	4803	8799	176	171	124	471	138	233	454	826
Attractions	10458	14561	5096	30115	1082	857	129	2068	1213	1122	484	2819
Total	11544	17471	9899	38914	1258	1028	253	2539	1351	1355	938	3644
Predicted Probabilities:												
Productions												
Internal Capture	4.29%	7.44%	17.83%	20.24%	6.89%	11.92%	28.59%	29.75%	9.89%	17.13%	41.06%	45.54%
Walking External	6.12%	10.05%	5.66%	7.13%	8.08%	13.27%	5.72%	9.18%	6.12%	10.05%	5.66%	6.88%
Transit External	5.31%	4.13%	6.05%	5.35%	7.53%	8.88%	13.01%	9.44%	8.22%	8.26%	12.11%	10.49%
Attractions												
Internal Capture	4.29%	7.44%	17.83%	5.91%	6.89%	11.92%	28.59%	6.77%	9.89%	17.13%	41.06%	13.34%
Walking External	6.12%	10.05%	5.66%	7.98%	8.08%	13.27%	5.72%	10.11%	6.12%	10.05%	5.66%	7.69%
Transit External	5.31%	4.13%	6.05%	4.84%	7.53%	8.88%	13.01%	8.35%	8.22%	8.26%	12.11%	8.70%
Total												
Internal Capture	4.30%	7.44%	17.84%	9.15%	6.84%	11.86%	28.49%	11.03%	9.92%	17.12%	41.14%	20.64%
Walking External	6.12%	10.05%	5.66%	7.81%	8.08%	13.27%	5.72%	9.97%	6.12%	10.05%	5.66%	7.56%
Transit External	5.31%	4.13%	6.05%	4.94%	7.53%	8.88%	13.01%	8.51%	8.22%	8.26%	12.11%	8.98%
Number of Trips:												
Productions												
Internal Capture	248	650	883	1781	43	61	36	140	67	116	193	376
Walking External	51	227	222	500	11	15	5	30	4	12	15	31
Transit External	44	93	237	375	10	10	11	31	6	10	32	47
Attractions												
Internal Capture	248	650	883	1781	43	61	36	140	67	116	193	376
Walking External	625	1399	238	2262	84	106	5	195	70	101	16	188
Transit External	542	575	255	1371	78	71	12	161	94	83	35	213
Total												
Internal Capture	496	1300	1766	3562	86	122	72	280	134	232	386	752
Walking External	676	1626	460	2763	95	120	10	225	74	113	31	219
Transit External	586	668	492	1747	88	80	24	192	100	93	67	260
Internal Capture including Site Specific Internal	496	1300	1766	3562	86	122	72	280	134	232	386	752
Net Number of IXXI Vehicle Trips	**9786**	**13877**	**7180**	**30843**	**989**	**705**	**147**	**1841**	**1042**	**917**	**454**	**2414**

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Traditional MXD P-A calc for redistribution								
Internal Capture	27	38	23	88	29	50	84	163
Walking External	8.1284	11.06862	4.967889	24.16491	4.343599	11.80901	14.7896	30.9422
Transit External	7.044682	4.548063	5.312858	16.9056	3.764489	4.852286	15.81659	24.43336
Internal Capture	27	38	23	88	29	50	84	163
Walking External	63.61188	80.04879	5.261275	148.9219	70.14817	101.1004	16.47264	187.7212
Transit External	55.13083	32.89181	5.626616	93.64926	60.79567	41.54187	17.61649	119.954
Total walk/transit using BATS								
Internal Capture	744	1950	2649		868	2275	3091	
Walking External	893	2146	465		676	1626	460	
Transit External	832	1673	1233	3738	908	1448	1067	3423
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
walk/transit using ITE peak hour factors								
Internal Capture	74	96	12		79	126	44	
Walking External	64	39	13		69	52	47	
average walk/transit								
Internal Capture	483	1121	238		378	876	252	
Walking External	448	856	623		489	750	557	
				416				

am	weight	10.1	89.9			
am		684	mxd	avg	weight avg	final
	hbw	0.230215	0.064448	0.147332	0.081191	0.068853
	hbo	0.230215	0.111613	0.170914	0.123592	0.119242
	nhb	0.230215	0.267599	0.248907	0.253823	0.285889
	agg	0.230215	0.137302	0.183759	0.146686	0.146686
pm	weight	36.5	63.5			
pm		684	mxd	avg		
	hbw	0.298567	0.07519	0.186878	0.156722	0.098898
	hbo	0.298567	0.130216	0.214391	0.191664	0.171275
	nhb	0.298567	0.312199	0.305383	0.307223	0.410641
	agg	0.298567	0.160185	0.229376	0.210695	0.210695

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	38,914	30,843	21%	165,464	133,996	19%	267,101
AM Peak Hour	2,539	1,841	27%	12,362	9,276	25%	18,481
PM Peak Hour	3,644	2,414	34%	16,352	11,472	30%	22,757

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment	AM	PM
	0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values AM	original values PM
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	1086	2910	0	3996	176	171	0	347	138	233	0	371
Attractions	0	526	292	818	0	31	5	36	0	42	30	72
Total	1086	3436	292	4814	176	202	5	383	138	276	30	443
Predicted Probabilities:												
Productions												
Internal Capture	4.29%	7.44%	17.83%	20.24%	6.89%	11.92%	28.59%	29.75%	9.89%	17.13%	41.06%	45.54%
Walking External	6.12%	10.05%	5.66%	7.13%	8.08%	13.27%	5.72%	9.18%	6.12%	10.05%	5.66%	6.88%
Transit External	5.31%	4.13%	6.05%	5.35%	7.53%	8.88%	13.01%	9.44%	8.22%	8.26%	12.11%	10.49%
Attractions												
Internal Capture	4.29%	7.44%	17.83%	5.91%	6.89%	11.92%	28.59%	6.77%	9.89%	17.13%	41.06%	13.34%
Walking External	6.12%	10.05%	5.66%	7.98%	8.08%	13.27%	5.72%	10.11%	6.12%	10.05%	5.66%	7.69%
Transit External	5.31%	4.13%	6.05%	4.84%	7.53%	8.88%	13.01%	8.35%	8.22%	8.26%	12.11%	8.70%
Total												
Internal Capture	0.00%	7.45%	0.00%	5.32%	0.00%	11.88%	0.00%	6.27%	0.00%	17.41%	0.00%	10.83%
Walking External	6.12%	10.05%	5.66%	8.84%	8.08%	13.27%	5.72%	10.62%	6.12%	10.05%	5.66%	8.35%
Transit External	5.31%	4.13%	6.05%	4.53%	7.53%	8.88%	13.01%	8.28%	8.22%	8.26%	12.11%	8.54%
Number of Trips:												
Productions												
Internal Capture	0	128	0	128	0	12	0	12	0	24	0	24
Walking External	66	280	0	346	14	21	0	35	8	21	0	30
Transit External	58	115	0	173	13	14	0	27	11	17	0	29
Attractions												
Internal Capture	0	128	0	128	0	12	0	12	0	24	0	24
Walking External	0	40	17	57	0	3	0	3	0	2	2	4
Transit External	0	16	18	34	0	2	1	2	0	2	4	5
Total												
Internal Capture	0	256	0	256	0	24	0	24	0	48	0	48
Walking External	66	320	17	403	14	24	0	38	8	23	2	33
Transit External	58	131	18	207	13	16	1	30	11	19	4	34
Internal Capture including Site Specific Internal	0	256	0	256	0	24	0	24	0	48	0	48
NHB trips occuring outside the project			1558				24				144	
Non-XX NHB trips based on MXD model			278				7				59	
NHB trips still occuring outside the project			1280				17				85	
Net Number of IXXI Vehicle Trips generated by Project Residences	**962**	**2729**	**258**	**3949**	**148**	**139**	**4**	**291**	**118**	**186**	**24**	**329**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	4,814	3,949	18%	49,131	41,805	15%	63.5	54.0
AM Peak Hour	383	291	24%	3,801	3,005	21%	4.9	3.9
PM Peak Hour	443	329	26%	4,768	3,707	22%	6.2	4.8

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - PROPOSED CORRIDOR 6

All shaded cells are inputs

Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	6	Zone - Vlookup		
Site Name	Long Beach M	Midtown Specific Plan - Tra	int/sq mi	183

Geographic		**Notes / Instructions**
Developed Area (in acres)	45.4	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	13	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	Yes	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	10,454	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	330,002	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	0	DU	Log Equation	Linear Equation	Log Equation	0	0	0	0	0	0
Multi-Family	362	DU	Linear Equation	Linear Equation	Linear Equation	2,317	181	217	729	11	67
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	114.938	ksf	Log Equation	Log Equation	Log Equation	7,434	170	658			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	2.5	ksf	Average Rate	Average Rate	Average Rate	370	30	61			
Health Club	20	ksf	Average Rate	Average Rate	Average Rate	659	28	71			
Restaurant (non-fast food)	20	ksf	Average Rate	Average Rate	Average Rate	2,543	216	197			
Fast-Food Restaurant	4	ksf	Average Rate	Average Rate	Average Rate	1,984	182	131			
Gas Station	5	ksf	Average Rate	Average Rate	Average Rate	5,872	411	487			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	100	ksf	Log Equation	Log Equation	Linear Equation	1,313	191	190			
Medical	30.687	ksf	Average Rate	Average Rate	Average Rate	572	41	59			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	102										
Hotel (including restaurant, facilities, etc...)	92	Rooms	Average Rate	Average Rate	Average Rate	752	49	55			
Motel	10	Rooms	Average Rate	Average Rate	Average Rate	56	5	5			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**23,873**	**1,503**	**2,130**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	23,873	19,637	18%
AM Peak Hour	1,503	1,141	24%
PM Peak Hour	2,130	1,455	32%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice?: Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.64	40.89	-214.97	0	0	1.322152					1.910427			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <<<<<

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - PROPOSED CORRIDOR 6

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	523	1401	3065	4988	83	81	42	206	67	114	274	456
Attractions	6746	8933	3206	18885	844	409	44	1297	750	635	289	1674
Total	7269	10334	6270	23873	927	490	86	1503	818	749	563	2130
Predicted Probabilities:												
Productions												
Internal Capture	4.69%	6.28%	11.77%	17.32%	7.87%	10.58%	19.80%	34.47%	12.86%	17.30%	32.37%	45.83%
Walking External	5.22%	9.17%	3.90%	5.38%	6.90%	12.10%	3.93%	8.29%	5.22%	9.17%	3.90%	5.02%
Transit External	5.11%	3.71%	5.95%	5.30%	7.25%	7.98%	12.80%	8.90%	7.91%	7.43%	11.91%	10.78%
Attractions												
Internal Capture	4.69%	6.28%	11.77%	4.58%	7.87%	10.58%	19.80%	5.47%	12.86%	17.30%	32.37%	12.49%
Walking External	5.22%	9.17%	3.90%	6.90%	6.90%	12.10%	3.93%	8.44%	5.22%	9.17%	3.90%	6.58%
Transit External	5.11%	3.71%	5.95%	4.57%	7.25%	7.98%	12.80%	7.64%	7.91%	7.43%	11.91%	8.26%
Total												
Internal Capture	4.68%	6.29%	11.77%	7.24%	7.77%	10.62%	20.85%	9.45%	12.96%	17.36%	32.30%	19.63%
Walking External	5.22%	9.17%	3.90%	6.62%	6.90%	12.10%	3.93%	8.42%	5.22%	9.17%	3.90%	6.35%
Transit External	5.11%	3.71%	5.95%	4.71%	7.25%	7.98%	12.80%	7.76%	7.91%	7.43%	11.91%	8.63%
Number of Trips:												
Productions												
Internal Capture	170	325	369	864	36	26	9	71	53	65	91	209
Walking External	18	99	105	222	3	7	1	11	1	5	7	12
Transit External	18	40	160	218	3	4	4	12	1	4	22	27
Attractions												
Internal Capture	170	325	369	864	36	26	9	71	53	65	91	209
Walking External	344	789	111	1243	56	46	1	103	36	52	8	96
Transit External	336	320	169	824	59	31	5	94	55	42	24	121
Total												
Internal Capture	340	650	738	1728	72	52	18	142	106	130	182	418
Walking External	362	888	216	1465	59	53	3	115	37	57	15	109
Transit External	354	360	329	1043	62	35	9	106	56	46	45	148
Internal Capture including Site Specific Internal	340	650	738	1728	72	52	18	142	106	130	182	418
Net Number of IXXI Vehicle Trips	**6213**	**8436**	**4988**	**19637**	**734**	**350**	**57**	**1141**	**618**	**516**	**321**	**1455**

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Traditional MXD P-A calc for redistribution								
Internal Capture	22	15	5	42	19	24	33	76
Walking External	2.461807	5.033374	1.282925	8.778106	0.754653	4.504203	7.146215	12.40507
Transit External	2.405896	2.038512	1.960526	6.404935	0.737514	1.824198	10.92062	13.48234
Internal Capture	22	15	5	42	19	24	33	76
Walking External	42.19664	35.0934	1.378413	78.66845	36.41807	52.2151	7.712537	96.34571
Transit External	41.23831	14.2128	2.106448	57.55755	35.59098	21.14707	11.78606	68.52411
Total walk/transit using BATS								
Internal Capture	510	975	1107		595	1138	1292	
Walking External	478	1172	218		362	888	216	
Transit External	502	902	827	2231	548	780	715	2044
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
walk/transit using ITE peak hour factors								
Internal Capture	46	42	3		41	64	19	
Walking External	45	17	5		40	26	30	
Transit External								220
average walk/transit								
Internal Capture	262	607	110		201	476	117	
Walking External	274	460	416		294	403	372	

am	weight	10.1	89.9			
am		684	mxd	avg	weight avg	final
	hbw	0.23898	0.070164	0.154572	0.087214	0.078675
	hbo	0.23898	0.094351	0.166666	0.108959	0.105797
	nhb	0.23898	0.176543	0.207761	0.182849	0.197958
	agg	0.23898	0.108575	0.173777	0.121746	0.121746
pm	weight	36.5	63.5			
pm		684	mxd	avg		
	hbw	0.324985	0.081858	0.203421	0.170599	0.128634
	hbo	0.324985	0.110077	0.217531	0.188518	0.172979
	nhb	0.324985	0.205966	0.265476	0.249408	0.323663
	agg	0.324985	0.126671	0.225828	0.199056	0.199056

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	23,873	19,637	18%	102,117	85,157	17%	169,882
AM Peak Hour	1,503	1,141	24%	7,890	6,120	22%	12,204
PM Peak Hour	2,130	1,455	32%	9,647	6,879	29%	13,654

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values	
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	523	1401	0	1923	83	81	0	164	67	114	0	182
Attractions	0	253	141	394	0	15	2	17	0	21	15	35
Total	523	1654	141	2317	83	96	2	181	67	135	15	217
Predicted Probabilities:												
Productions												
Internal Capture	4.69%	6.28%	11.77%	17.32%	7.87%	10.58%	19.80%	34.47%	12.86%	17.30%	32.37%	45.83%
Walking External	5.22%	9.17%	3.90%	5.38%	6.90%	12.10%	3.93%	8.29%	5.22%	9.17%	3.90%	5.02%
Transit External	5.11%	3.71%	5.95%	5.30%	7.25%	7.98%	12.80%	8.90%	7.91%	7.43%	11.91%	10.78%
Attractions												
Internal Capture	4.69%	6.28%	11.77%	4.58%	7.87%	10.58%	19.80%	5.47%	12.86%	17.30%	32.37%	12.49%
Walking External	5.22%	9.17%	3.90%	6.90%	6.90%	12.10%	3.93%	8.44%	5.22%	9.17%	3.90%	6.58%
Transit External	5.11%	3.71%	5.95%	4.57%	7.25%	7.98%	12.80%	7.64%	7.91%	7.43%	11.91%	8.26%
Total												
Internal Capture	0.00%	6.29%	0.00%	4.49%	0.00%	10.47%	0.00%	5.52%	0.00%	17.81%	0.00%	11.07%
Walking External	5.22%	9.17%	3.90%	7.90%	6.90%	12.10%	3.93%	9.46%	5.22%	9.17%	3.90%	7.39%
Transit External	5.11%	3.71%	5.95%	4.18%	7.25%	7.98%	12.80%	7.70%	7.91%	7.43%	11.91%	7.93%
Number of Trips:												
Productions												
Internal Capture	0	52	0	52	0	5	0	5	0	12	0	12
Walking External	27	124	0	151	6	9	0	15	4	9	0	13
Transit External	27	50	0	77	6	6	0	12	5	8	0	13
Attractions												
Internal Capture	0	52	0	52	0	5	0	5	0	12	0	12
Walking External	0	18	5	24	0	1	0	1	0	1	1	1
Transit External	0	7	8	16	0	1	0	1	0	1	2	2
Total												
Internal Capture	0	104	0	104	0	10	0	10	0	24	0	24
Walking External	27	142	5	175	6	10	0	16	4	10	1	14
Transit External	27	58	8	93	6	7	0	13	5	8	2	15
Internal Capture including Site Specific Internal	0	104	0	104	0	10	0	10	0	24	0	24
NHB trips occuring outside the project			729				11				67	
Non-XX NHB trips based on MXD model			86				2				22	
NHB trips still occuring outside the project			643				9				46	
Net Number of IXXI Vehicle Trips generated by Project Residences	**469**	**1350**	**127**	**1946**	**71**	**68**	**2**	**142**	**59**	**92**	**12**	**163**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	2,317	1,946	16%	23,506	20,464	13%	64.9	56.5
AM Peak Hour	181	142	22%	1,796	1,458	19%	5.0	4.0
PM Peak Hour	217	163	25%	2,311	1,837	20%	6.4	5.1

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.

MIXED USE TRIP GENERATION MODEL - BASIC INPUT - PROPOSED CORRIDOR 7

All shaded cells are inputs

Regular inputs (project-specific)	VLOOKUP	
Inputs that may depend on regional values from census data, travel demand model, etc…	SAME FOR ALL ZONES	
Treat like other inputs, but please send values and source to Mackenzie Watten so that a library of values can be compiled in future versions!		

Section 1 - General Site Information

	7	Zone - Vlookup		
Site Name	Long Beach M	Midtown Specific Plan - Trar	int/sq mi	721

Geographic		**Notes / Instructions**
Developed Area (in acres)	21.3	Include streets, ROW, parking lots, pocket parks. Do not include open space, vacant lots.
Number of Intersections	24	Count intersections either within or on the perimeter of the MXD. Check resulting intersections per square mile in blue above
Is Transit (bus or rail) present within the site or across the street?	Yes	Note: This is only used as a way to zero out the probability of external trips if no transit is present.
Proportion of households within 1/4 mile of a transit stop	100%	Enter as a percentage

Land Use - Surrounding Area			
Is the site in a Central Business District and/or TOD?	Yes	Answering "Yes" will reduce the HBO and NHB purpose splits for retail use to those found in smaller stores. The nature of the stores (large vs. small) should be the primary factor in the selection here.	
Employment within one mile of the MXD	13,734	Do not include employment within the MXD itself	
Employment within a 30 minute Transit Trip (Door-to-door)	311,264	Include employment within the MXD itself	This can be a difficult number to get - some suggestions are in the instructions tab in "disclaimers and warnings"
Total Regional Employment	2,098,444	Employment at MPO or similar level	If in the 9 county Bay Area, can use the MTCJobsWithin30MinutesByTransit.xls sheet on the wiki!

Site Demographics		
Enter Population Directly?	No	If "No", will apply average HH size factors (immediately below) to dwelling unit totals in section 2
Population	5871	You do not need to enter population here. It will be calculated based on dwelling units below and average HH sizes.
Average HH Size by type within MXD		
Single Family	3.2	These HH size inputs by dwelling type are used to calculate population if it is not entered above, and are also used for average HH size if block group average HH size option is "No" below
Multi-Family	2.5	
Townhouse	2.5	
High Rise Condo	2.5	
Average Vehicles Owned per Dwelling Unit within site	2.70	

Use Surrounding Area (Block Group) Demographics for On-Site Average HH Size?	Yes	If no project-specific information exists, can use block group average HH size (see below)
Use Surrounding Area (Block Group) Demographics for On-Site Average Veh Own?	Yes	If no project-specific information exists, can use block group average veh owned (see below)

Surrounding Area (Block Group) Demographics		
Average HH size near Site	2.87	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1
Average Vehicles Owned per Dwelling Unit near Site	1.70	See http://factfinder2.census.gov/ http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=AHS_2011_C02AOM&prodType=table

Section 2 - Trip Generation

	Quantity	Units	Trip Equation Method: Daily	Trip Equation Method: AM Peak Hour	Trip Equation Method: PM Peak Hour	Trips: Daily	Trips: AM Peak Hour	Trips: PM Peak Hour	NHB Trips Outside of Project: Daily	NHB Trips Outside of Project: AM Peak Hour	NHB Trips Outside of Project: PM Peak Hour
Number of Dwelling Units											
Single Family	0	DU	Log Equation	Linear Equation	Log Equation	0	0	0	0	0	0
Multi-Family	401	DU	Linear Equation	Linear Equation	Linear Equation	2,554	200	238	807	13	75
Townhouse	0	DU	Log Equation	Log Equation	Log Equation	0	0	0	0	0	0
High Rise Condo	0	DU	Linear Equation	Linear Equation	Linear Equation	0	0	0	0	0	0
Retail (note: if you use job units for retail, the spreadsheet will convert before applying trip rates, using the rate in section 2 which you can change)											
General Retail other than those listed below	230	ksf	Log Equation	Log Equation	Log Equation	11,670	259	1,047			
Supermarket	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Bank	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Health Club	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Restaurant (non-fast food)	20	ksf	Average Rate	Average Rate	Average Rate	2,543	216	197			
Fast-Food Restaurant	4	ksf	Average Rate	Average Rate	Average Rate	1,984	182	131			
Gas Station	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Auto Repair	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Home Improvement Superstore	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Free-Standing Discount	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Office											
Non-Medical	65	ksf	Log Equation	Log Equation	Linear Equation	946	136	151			
Medical	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Industrial											
Light Industrial	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Manufacturing	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
Warehousing / Self-Storage	0	ksf	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Hotel (including restaurant, facilities, etc...)	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Motel	0	Rooms	Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Theater with Matinee)	0		Average Rate	Average Rate	Average Rate	0	0	0			
Movie Theater (Multiplex)	0	Screens	Average Rate	Average Rate	Average Rate	0	0	0			
School											
University	0	Students	Linear Equation	Average Rate	Average Rate	0	0	0			
High School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Middle School	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
Elementary	0	Students	Average Rate	Average Rate	Average Rate	0	0	0			
	0										
Trips from Land uses not covered above ==>											
Daily											
AM Peak Hour											
PM Peak Hour											
Jobs in those Land Uses	0										

	Daily	AM Peak Hour	PM Peak Hour
Total "Raw" ITE Trips	**19,697**	**993**	**1,764**

External Vehicle Trips

	Raw	Net	Reduction %
Daily	19,697	13,675	31%
AM Peak Hour	993	580	42%
PM Peak Hour	1,764	936	47%

	ITE Daily Parameters: Code	Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	AM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	PM PEAK HOUR TRIP RATES: Average Rate	Linear Multiplier	Linear Constant	Log Multiplier	Log Constant	Jobs Per Input Unit (if Applicable)	Valid Trip Gen Calc Choice?: Daily	AM Peak Hour	PM Peak Hour
Single Family	210	9.52			0.92	2.72	0.75	0.7	9.74			1.00			0.9	0.51		Yes	Yes	Yes
Multi-Family	220	6.65	6.06	123.56			0.51	0.49	3.73			0.62	0.55	17.65				Yes	Yes	Yes
Townhouse	230	5.81			0.87	2.46	0.44			0.8	0.26	0.52			0.82	0.32				
High Rise Condo	232	4.18	3.77	223.66			0.34	0.29	28.86			0.38	0.34	15.47				Yes	Yes	Yes
General Retail other than those listed below	820	42.7			0.65	5.83	0.96			0.61	2.24	3.71			0.67	3.31	2.0	Yes	Yes	Yes
Supermarket	850	102.24	66.95	1391.56			3.4					9.48			0.74	3.25	2.0	Yes	Yes	Yes
Bank	912	148.15					12.08					24.3					2.0	Yes	Yes	Yes
Health Club	492	32.93					1.41					3.53			0.95	1.43	2.0	Yes	Yes	Yes
Restaurant (non-fast food)	932	127.15					10.81					9.85					2.0	Yes	Yes	Yes
Fast-Food Restaurant	934	496.12					45.42					32.65					2.0	Yes	Yes	Yes
Gas Station	945	1174.40					82.13					97.47					2.0	Yes	Yes	Yes
Auto Repair	942	26.8					2.25					3.11	2.41	11.79			2.0	Yes	Yes	Yes
Home Improvement Superstore	862	30.74					1.49					2.33					2.0	Yes	Yes	Yes
Free-Standing Discount	813	50.75					1.85					4.35					2.0	Yes	Yes	Yes
Non-Medical	710	11.03			0.76	3.68	1.56			0.8	1.57	1.49	1.12	78.45			3.0	Yes	Yes	Yes
Medical	720	18.64	40.89	-214.97	0	0	1.322152					1.910427			0.9	1.53	3.0	Yes	Yes	Yes
Light Industrial	110	6.97	7.47	-101.92			0.92	1.18	-89.28			0.97	1.43	-157.36			1.0	Yes	Yes	Yes
Manufacturing	140	3.82	3.88	-20.7			0.73	0.83	-29.52	0	0	0.73	0.78	-15.97	0	0	0.5	Yes	Yes	Yes
Warehousing / Self-Storage	151	2.5					0.14					0.26					2.0	Yes	Yes	Yes
Hotel (including restaurant, facilities, etc...)	310	8.17	8.95	-373.16			0.53					0.6					0.50	Yes	Yes	Yes
Motel	320	5.63			0.92	2.11	0.45			0.92	-0.46	0.47			0.94	-0.51	0.50	Yes	Yes	Yes
Movie Theater (Theater with Matinee)	444	153.4139					0					20.22					4.00	Yes	Yes	Yes
Movie Theater (Multiplex)	445	175.29					0					13.64					4.00	Yes	Yes	Yes
University	550	1.71			0.86	1.93	0.17			0.88	-0.68	0.17			0.73	0.84	0.25	No	Yes	Yes
High School	530	1.71			0.81	1.86	0.43					0.13					0.10	Yes	Yes	Yes
Middle School	522	1.62					0.54					0.16					0.10	Yes	Yes	Yes
Elementary	520	1.29					0.45					0.15					0.10	Yes	Yes	Yes

Note the formulas are slightly different in this section <<<<<

MIXED USE TRIP GENERATION MODEL - ADVANCED OUTPUT - PROPOSED CORRIDOR 7

MODEL APPLICATION - ALL TRIPS

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	576	1543	2468	4588	92	89	26	207	74	125	222	421
Attractions	5158	7328	2623	15109	498	259	28	786	583	522	238	1342
Total	5734	8871	5092	19697	590	349	54	993	657	648	460	1764
Predicted Probabilities:												
Productions												
Internal Capture	4.97%	7.73%	18.02%	20.60%	7.80%	12.10%	28.20%	25.12%	12.16%	18.85%	43.96%	47.94%
Walking External	5.97%	17.71%	15.52%	15.10%	7.88%	23.38%	15.67%	15.61%	5.97%	17.71%	15.52%	14.68%
Transit External	19.77%	4.72%	5.91%	7.17%	28.08%	10.14%	12.71%	18.41%	30.65%	9.43%	11.82%	14.05%
Attractions												
Internal Capture	4.97%	7.73%	18.02%	6.25%	7.80%	12.10%	28.20%	6.62%	12.16%	18.85%	43.96%	15.05%
Walking External	5.97%	17.71%	15.52%	13.22%	7.88%	23.38%	15.67%	13.13%	5.97%	17.71%	15.52%	11.86%
Transit External	19.77%	4.72%	5.91%	10.23%	28.08%	10.14%	12.71%	21.83%	30.65%	9.43%	11.82%	19.81%
Total												
Internal Capture	4.99%	7.73%	18.03%	9.60%	7.80%	12.05%	29.59%	10.48%	12.18%	18.84%	43.95%	22.90%
Walking External	5.97%	17.71%	15.52%	13.60%	7.88%	23.38%	15.67%	13.56%	5.97%	17.71%	15.52%	12.32%
Transit External	19.77%	4.72%	5.91%	9.60%	28.08%	10.14%	12.71%	21.23%	30.65%	9.43%	11.82%	18.88%
Number of Trips:												
Productions												
Internal Capture	143	343	459	945	23	21	8	52	40	61	101	202
Walking External	26	213	312	550	5	16	3	24	2	11	19	32
Transit External	86	57	119	261	19	7	2	29	10	6	14	31
Attractions												
Internal Capture	143	343	459	945	23	21	8	52	40	61	101	202
Walking External	299	1237	336	1872	37	56	3	96	32	82	21	135
Transit External	992	329	128	1449	133	24	3	160	166	44	16	226
Total												
Internal Capture	286	686	918	1890	46	42	16	104	80	122	202	404
Walking External	325	1450	648	2422	43	72	6	121	34	93	40	167
Transit External	1077	386	247	1710	153	31	5	189	177	50	30	257
Internal Capture including Site Specific Internal	286	686	918	1890	46	42	16	104	80	122	202	404
Net Number of IXXI Vehicle Trips	**4046**	**6350**	**3279**	**13675**	**348**	**204**	**27**	**580**	**366**	**383**	**187**	**936**

	AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Traditional MXD P-A calc for redistribution								
Internal Capture	15	13	5	33	16	25	41	82
Walking External	4.11218	12.12104	2.744043	18.97727	2.036511	11.41012	18.74945	32.19608
Transit External	13.62434	3.228505	1.045115	17.89796	6.747303	3.039146	7.141039	16.92749
Internal Capture	15	13	5	33	16	25	41	82
Walking External	28.36294	42.17528	3.164493	73.70271	32.38344	81.66084	21.22826	135.2725
Transit External	93.97116	11.23361	1.20525	106.41	107.2918	21.7508	8.085138	137.1277

Total walk/transit using BATS								
Internal Capture	429	1029	1377		501	1201	1607	
Walking External	429	1914	654		325	1450	648	
Transit External	1530	1300	830	3660	1670	1026	656	3352
%s								
Internal Capture	1.50	1.50	1.50		1.75	1.75	1.75	
Walking External	1.32	1.32	1.01	1.14	1.00	1.00	1.00	1
Transit External	1.42	2.15	2.15	2.14	1.55	2.00	2.00	1.96

walk/transit using ITE peak hour factors								
Internal Capture	33	57	7	37	106	58		
Walking External	111	15	3	123	28	22		
Transit External							375	

average walk/transit						
Internal Capture	231	985	330	181	778	353
Walking External	820	657	416	897	527	339
Transit External						

	AM				PM			
am	weight	10.1	89.9					
am		684	mxd	avg		weight avg	final	
	hbw	0.204887	0.074816	0.139852		0.087953	0.078016	
	hbo	0.204887	0.11599	0.160439		0.124968	0.120951	
	nhb	0.204887	0.270449	0.237668		0.263827	0.282018	
	agg	0.204887	0.14393	0.174409		0.150087	0.150087	
pm	weight	36.5	63.5					
pm		684	mxd	avg				
	hbw	0.348761	0.087285	0.218023		0.182724	0.121596	
	hbo	0.348761	0.135321	0.242041		0.213227	0.188515	
	nhb	0.348761	0.315524	0.332142		0.327655	0.439554	
	agg	0.348761	0.167918	0.25834		0.233926	0.233926	

Results	External Vehicle Trips Raw	Net	Reduction %	VMT Raw	Net	Reduction	Net counting full IXXI Trip length (Instead of half)
Daily	19,697	13,675	31%	83,413	58,565	30%	116,658
AM Peak Hour	993	580	42%	5,141	3,040	41%	6,053
PM Peak Hour	1,764	936	47%	7,924	4,354	45%	8,607

NOTE: External trips are attributed half to project site uses,
internal trips all to site uses for purposes of VMT allocation.
NHB Trips by households that start and end outside the site are not included.

walk hb

adjustment	AM	PM
HBW	63%	50%
HBO	37%	50%

transit adjustment

AM	PM
0%	0%

from sandag surveys - transit ~3% low

	AM	PM	original values	
Transit Hl	31.8%	25.13%	31.89%	25.13%
Transit Al	23.68%	20.59%	23.68%	20.59%
Walk HB	17.00%	7.67%	17.00%	7.67%
Walk NHI	2.80%	4.73%	2.80%	4.73%
Walk All	12.98%	6.85%	12.98%	6.85%
Bike HB	15.26%	13.32%	15.26%	13.32%
Bike NHE	2.97%	10.22%	2.97%	10.22%
Bike All	13.20%	12.82%	13.20%	12.82%
Walk+Bik	16.79%	8.35%	16.79%	8.35%
Walk+Bik	2.82%	5.39%	2.82%	5.39%
Walk+Bik	13.01%	7.57%	13.01%	7.57%

MODEL APPLICATION - TRIP ENDS ASSOCIATED WITH HOUSES IN THE PROJECT ONLY

	Daily				AM Peak Hour				PM Peak Hour			
	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total	HBW	HBO	NHB	Total
Number of "Raw" ITE Trips Subject to Model												
Productions	576	1543	0	2120	92	89	0	181	74	125	0	200
Attractions	0	279	155	434	0	16	3	19	0	23	16	39
Total	576	1822	155	2554	92	106	3	200	74	148	16	238
Predicted Probabilities:												
Productions												
Internal Capture	4.97%	7.73%	18.02%	20.60%	7.80%	12.10%	28.20%	25.12%	12.16%	18.85%	43.96%	47.94%
Walking External	5.97%	17.71%	15.52%	15.10%	7.88%	23.38%	15.67%	15.61%	5.97%	17.71%	15.52%	14.68%
Transit External	19.77%	4.72%	5.91%	7.17%	28.08%	10.14%	12.71%	18.41%	30.65%	9.43%	11.82%	14.05%
Attractions												
Internal Capture	4.97%	7.73%	18.02%	6.25%	7.80%	12.10%	28.20%	6.62%	12.16%	18.85%	43.96%	15.05%
Walking External	5.97%	17.71%	15.52%	13.22%	7.88%	23.38%	15.67%	13.13%	5.97%	17.71%	15.52%	11.86%
Transit External	19.77%	4.72%	5.91%	10.23%	28.08%	10.14%	12.71%	21.83%	30.65%	9.43%	11.82%	19.81%
Total												
Internal Capture	0.00%	7.68%	0.00%	5.48%	0.00%	11.36%	0.00%	5.99%	0.00%	18.91%	0.00%	11.75%
Walking External	5.97%	17.71%	15.52%	14.77%	7.88%	23.38%	15.67%	15.70%	5.97%	17.71%	15.52%	13.40%
Transit External	19.77%	4.72%	5.91%	8.39%	28.08%	10.14%	12.71%	18.94%	30.65%	9.43%	11.82%	17.10%
Number of Trips:												
Productions												
Internal Capture	0	70	0	70	0	6	0	6	0	14	0	14
Walking External	34	261	0	295	7	20	0	27	4	20	0	24
Transit External	114	70	0	183	26	8	0	34	23	11	0	33
Attractions												
Internal Capture	0	70	0	70	0	6	0	6	0	14	0	14
Walking External	0	37	24	61	0	2	0	3	0	2	2	4
Transit External	0	10	9	19	0	1	0	1	0	1	2	3
Total												
Internal Capture	0	140	0	140	0	12	0	12	0	28	0	28
Walking External	34	298	24	356	7	22	0	30	4	21	2	28
Transit External	114	79	9	202	26	9	0	36	23	11	2	36
Internal Capture including Site Specific Internal	0	140	0	140	0	12	0	12	0	28	0	28
NHB trips occuring outside the project			807				13				75	
Non-XX NHB trips based on MXD model			145				4				33	
NHB trips still occuring outside the project			662				9				42	
Net Number of IXXI Vehicle Trips generated by Project Residences	**428**	**1305**	**122**	**1855**	**59**	**62**	**2**	**123**	**47**	**88**	**12**	**146**

	External Vehicle Trips			VMT			VMT Per Household	
Results	Raw	Net	Reduction %	Raw	Net	Reduction %	Raw	Net
Daily	2,554	1,855	27%	25,932	19,950	23%	64.7	49.7
AM Peak Hour	200	123	39%	1,986	1,260	37%	5.0	3.1
PM Peak Hour	238	146	39%	2,543	1,665	35%	6.3	4.2

NOTE: all trips generated by project households (either produced or attracted or both) are counted 100%. This cannot be compared directly to the VMT in the section above.